

Gold standard for the global goals
Monitoring report



June 2017, version 1

Title of the project	GHG abatement through Solar Power Generation at Jaisalmer, Rajasthan, India
Gold Standard project id	GS6003 CDM Project ID: 7461
Version number of the monitoring report	03
Completion date of the monitoring report	04/08/2020
Date of project design certification	13/02/2018
Start date of crediting period	13/02/2016
Duration of this monitoring period	01/09/2017 to 01/02/2020 (Inclusive of both the days)
Duration of previous monitoring period	13/02/2016 to 31/08/2017 (Inclusive of both the days)
Project representative(s)	M/s Precision Technik Private Limited (PTPL)
Host Country	India
Certification pathway (activity certification/impact certification)	Impact Certification
SDG Contributions targeted (as per approved PDD)	1 – SDG 7: 8,322 MWh/Year 2– SDG 8: More than 10 people employed and more than 1 training will be conducted 3– SDG 13: 7,889 tCO ₂ e GS CERs for annual average
Gold Standard statement/product certification sought (GSVER/ADALYs/RECs etc.)	GS CER
Selected methodology(ies)	Grid-connected electricity generation from renewable sources”, AMS ID- Version 17.0 Standardized baselines: Not applicable
Estimated amount of annual average certified SDG impact (as per approved PDD)	1 – SDG 7: 8,322 MWh/Year and 171,284 MWh for the monitoring period 2– SDG 8: More than 10 people employed and more than 2 training will be conducted 3– SDG 13: 7889 tCO ₂ e annually and 19107 tCO ₂ e for the monitoring period.
Total amount of certified SDG impact (as per approved methodology) achieved in this monitoring period	1 – SDG 7: 20775.38 MWh 2– SDG 8: 13 people employed and 09 training is conducted 3– SDG 13: 19,695 tCO ₂ e GS CERs for the monitoring period

SECTION A. Description of project

A.1. Purpose and general description of project

M/s Precision Technik Private Limited (PTPL) incorporated on 19th December 1995 under the Companies Act, 1956 is a part of the Sonthalia Group. The Sonthalia Group is a Kolkata based business house with diversified business interests in Polymers, Textiles & Readymade Garments, Jewellery, Steel, Solar Module manufacturing and Infrastructure Development.

PTPL has developed a 5 MW grid connected solar Photo voltaic power project in Nokh Village, Pokhran Tehsil in Jaisalmer District in the State of Rajasthan in Western India. The project activity supplied around 8,322 MWh of net electricity annually to the NEWNE grid thereby reducing 7889 tCO₂ annually. The entire power generated from this project is being sold to NTPC Vidyut Vyapar Nigam (NVVN) by connecting it to state grid through a power purchase agreement with NVVN.

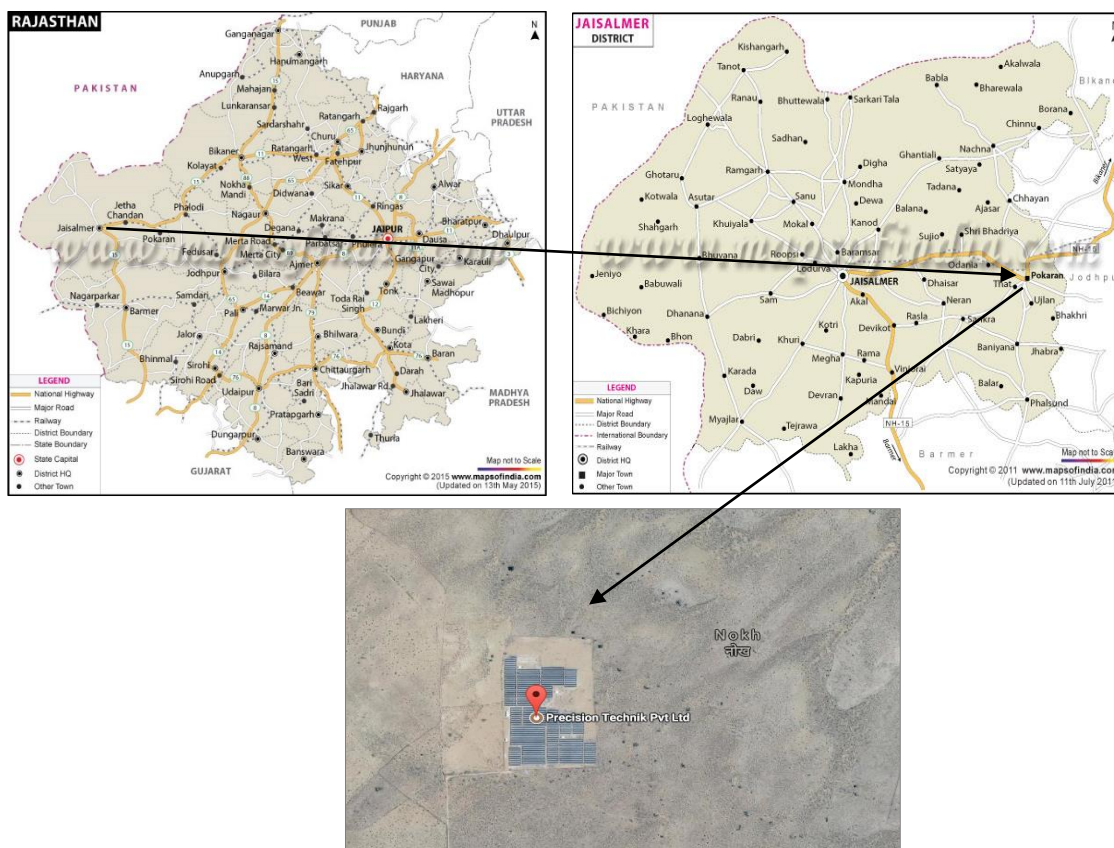
The project activity has been commissioned on 8th February 2012 and is continuing operation since then. During the current monitoring period, 19,695 tCO₂ is been displaced.

A.2. Location of project

The project activity is located at
Village : Nokh
Tehsil: Pokhran
District : Jaisalmer
State: Rajasthan

The latitude and longitude are as follows:

Latitude 26° 54' 56.69" N
Longitude 70° 54' 30.03" E



A.3. Reference of applied methodology

Title: Grid Connected Renewable Electricity Generation¹

Reference: AMS I.D. (Version 17, EB 61)

Title: “Tool to calculate the emission factor for an electricity system”

Reference: EB 63 (Annex 19, Version 2.2.1)²

A.4. Crediting period of project

Type of crediting period	Fixed
CDM Crediting period	31 Oct 2013 - 30 Oct 2023
Length of the CDM Crediting Period	10 Years
Current Monitoring period from	01 Sep 2017 to 01 Feb 2020
GS Crediting period	13 Feb 2016 – 12 Feb 2021

SECTION B. Implementation of project

B.1. Description of implemented project

The technology employed by the Proposed Project Activity includes the usage of poly crystalline-based solar PV modules with an aggregate of 5 MW generation capacity to supply the generated electricity to the NEWNE Grid. The generation and consumption of the Project Activity is monitored continuously through the energy meters at project site & substations. The data is used for the calculation of exports to the grid and imports from the grid.

The above mentioned investors employed the Solar PV Modules of poly crystalline technology for the proposed 5 MW project. The Solar power system has been designed with number of sub main plants, solar PV arrays and inverters of suitable capacity. The electricity exported by the proposed project activity would displace an equivalent amount of electricity generated by the power plants already operational and proposed to be added in the North-East-West-North East (NEWNE) Grid which relies predominantly on fossil fuels. Thus, it contributes towards reduction in the demand-supply gap during periods of electricity shortage and increase in the share of renewable energy in the grid mix.

The solar PV power plant has got solar PV modules, inverters, transformers and other protection system and supporting components as well. The various components of the plant include:

- Solar Photovoltaic modules
- Inverters
- Transformers
- Circuit breakers
- Lightning arrester
- Isolator
- Current transformer
- Switchyard
- LT panel
- Earthing system

The Direct Current (DC) from modules is converted into Alternating Current (AC) by inverters. The inverter outputs are fed into a junction box, which in turn is connected to the LV Panel in the control room. The output from LV Panel is stepped up by outdoor type transformers located near the control room. The HV side of transformer is connected to HT Panel in the control room. The LV and HT Panels have all necessary metering and protection as per Power evacuation schematic.

¹ <https://cdm.unfccc.int/UserManagement/FileStorage/V9LRSXKP24Q7YT6HZDUBO3C0ING8AJ>

² <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v2.2.1.pdf>

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- 5 MW divided into 5 nos of 1 MW
- 1 MW divided in to 2 nos of 500 KW inverter
- 500 kw system is connected by 113 strings of solar panel
- Each string consists of 22 solar modules connected in series

Basic System Design:

Parameter	Specifications
Power Generation Units	5 no's each with a proposed capacity of 1MW.
Inverter	Each of the 1 MW units are divided into 2 nos of 500 kW each. Inverter input voltage range 500-820 volt
Modules	230 Wp 30 volts modules have been used. 4348 modules (1 MW) have been used.
Strings	String voltage is 660 volt, 226 strings per MW have been used
Wires	Each inverter has got 5 wires

The plant is connected to RVPN's 132 kV GSS (PS-2) District Jodhpur, the metering equipment installed at delivery points having the main meter and check meter serial number 11071570 and 11071571 respectively. The electricity meters are under the custody of the DISCOM and are calibrated by DISCOM as per their procedures. However, the project proponent ensures that the meters are calibrated at least once in three years.

No events or situations happened during the reported monitoring period that can alter the applicability of the applied methodology.

B.2. Post-registration changes

B.2.1. Temporary deviations from Certified Key Project Information, Project Design Document, Monitoring & Reporting Plan, applied methodology or applied standardized baseline

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

B.2.2. Corrections

There have not been any corrections to project information or parameters fixed at validation during the current monitoring period.

B.2.3. Changes to start date of crediting period

Changes regarding state date of crediting period has been informed to UNFCCC via email by PP and same is approved. Please refer UN web page of same project.

The earlier crediting period was from 31/10/2012 to 30/10/2022 and it is changed to 31/10/2013 to 30/10/2023.

B.2.4. Permanent changes from registered monitoring plan, applied methodology or applied standardized baseline

Not Applicable

B.2.5. Changes to project design of approved project

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

SECTION C. Description of monitoring system applied by the project

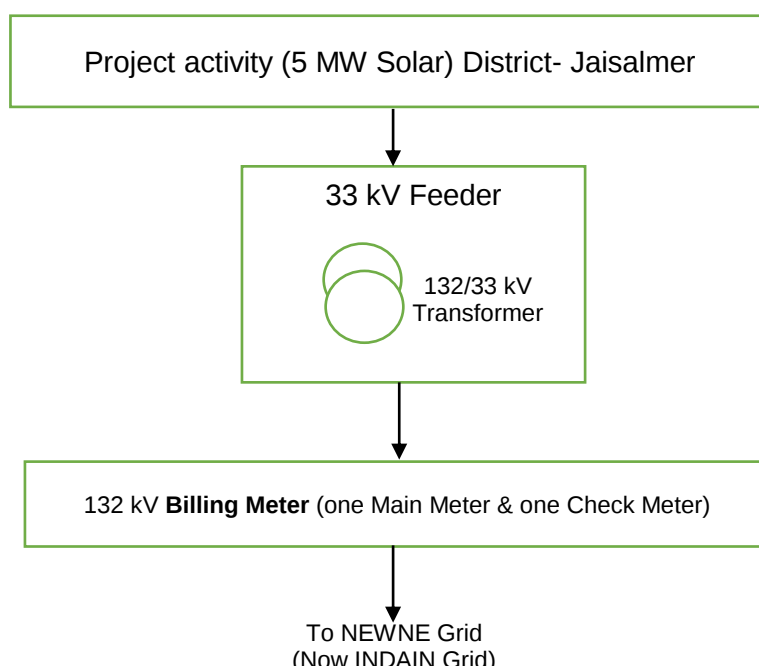
The project proponent is following the following operational & management structure in order to monitor the emission reduction. The organization structure for the proposed power plant comprises of a General Manager as the in-charge for the entire power plant operations and maintenance. He is positioned at site and directly reports to the Chief executive officer. He is supported by Site Manager and Site supervisor.

The day-to-day operation like planning the routine maintenance, safety and environmental control are placed under the care of the Site manager. The organizational structure and responsibilities on project operation, monitoring, data recording and ER calculation has been mentioned below:



Designation	Responsibilities
Chief Executive officer (CEO)	• Holds complete control over monitoring aspects • Pertaining to the project • Review of Monitoring report • Training of the staff. • Emission reduction calculation is maintained by the CEO for verification.
General Manager	• Entire power plant operation & maintenance • Periodic checking of recorded & stored data. • Emission reduction calculation & Monitoring • Report preparation.
Site Manager & Site Supervisor	• Day to day Operation • Storage of data • Data Recording

Layout of metering arrangement for project activity is as follows:



Calibration Details:

The electricity meters are under the custody of the DISCOM and calibrated by DISCOM as per their standard procedures. However, project proponent had ensured that the meters calibrated at least once in three years. The calibration details of meters involved in the project activity is tabulated below:

Parameters	Main Meter	Check Meter
Serial Number	11071570	11071571
Accuracy Class	0.2s	0.2s
Make	Larsen & Turbo Limited	Larsen & Turbo Limited
Calibration Date	30-Nov-2014	30-Nov-2014
Calibration Due Date	29-Nov-2017	29-Nov-2017
Calibration Date	8-Mar-2018	8-Mar-2018
Calibration Due Date	7-Mar-2021	7-Mar-2021
Meter Change and Calibration date	11-Sep-2019	
New Serial Number	16113796	
Accuracy Class	0.2s	
Make	Larsen & Turbo Limited	
Calibration Due Date	10-Sep-2022	

The period 29 November 2017 to 08 March 2018 is not covered under the validity of calibrated energy meters. Therefore, error factor as per the accuracy class (0.2%) of meters is applied during the duration. As a conservative approach, full month from November 2017 to March 2018 have been considered for the application of error factor. Also, the Main meter was changed and calibrated on 11-09-2019.

SECTION D. Data and parameters

D.1. Data and parameters fixed ex ante or at renewal of crediting period

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	$EF_{grid, CM, y} / EF_{grid, CO2, y}$
Unit	tCO ₂ / MWh
Description	Combined Margin Emission Factor (or CO ₂ Emission Factor) of the NEWNE Grid
Source of data	“CO ₂ Baseline Database for Indian Power Sector” version 06.0 published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO ₂ Baseline Database for Indian Power Sector” is available at www.cea.nic.in
Value(s) applied)	0.948
Choice of data or measurement methods and procedures	Combined Margin Emission Factor has been calculated by the Central Electricity Authority, Govt. of India in accordance the <i>“Tool to Calculate the emission Factor for an Electricity System”</i> (Version 02.2.0, Annex 12, EB 61).
Purpose of data	Calculation of baseline emission
Additional comments	Computation with data published by authorized Government agency and statistics available in the public domain will ensure the reliability of the parameter. The value of the parameter will be kept fixed during the entire crediting period.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	$EF_{grid, BM, y}$
Unit	tCO ₂ / MWh
Description	Build Margin Emission Factor (or CO ₂ Emission Factor) of the NEWNE Grid
Source of data	“CO ₂ Baseline Database for Indian Power Sector” version 06.0 published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO ₂ Baseline Database for Indian Power Sector” is available at www.cea.nic.in
Value(s) applied)	0.812
Choice of data or measurement methods and procedures	Build Margin Emission Factor has been calculated by the Central Electricity Authority, Govt. of India in accordance the <i>“Tool to Calculate the emission Factor for an Electricity System”</i> (Version 02.2.0, Annex 12, EB 61).
Purpose of data	Calculation of baseline emission
Additional comments	Computation with data published by authorized Government agency and statistics available in the public domain will ensure the reliability of the parameter. The value of the parameter will be kept fixed during the entire crediting period.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	$EF_{grid, OM, y}$
Unit	tCO ₂ / MWh
Description	Operating Margin Emission Factor (or CO ₂ Emission Factor) of the NEWNE Grid
Source of data	“CO ₂ Baseline Database for Indian Power Sector” version 06.0 published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO ₂ Baseline Database for Indian Power Sector” is available at www.cea.nic.in
Value(s) applied)	0.994
Choice of data or measurement methods and procedures	Operating Margin Emission Factor has been calculated by the Central Electricity Authority, Govt. of India in accordance the <i>“Tool to Calculate the emission Factor for an Electricity System”</i> (Version 02.2.0, Annex 12, EB 61).
Purpose of data	Calculation of baseline emission
Additional comments	Computation with data published by authorized Government agency and statistics available in the public domain will ensure the reliability of the parameter. The value of the parameter will be kept fixed during the entire crediting period.

D.2. Data and parameters monitored

Relevant SDG Indicator	7.2.1 Renewable energy share in the total final energy consumption	
Data / Parameter	EG_{BL,y}	
Unit	MWh	
Description	Quantity of net electricity supplied to the grid in year y	
Source of data	The data for the net energy supplied to the grid is calculated from the electricity exported from the project to the grid and the electricity imported from the grid. Electricity export and import value are directly considered from the Joint Meter Readings (JMR) signed by NVVN (NTPC Vidyut Vyapar Nigam) and M/s Precision Technik Private Limited.	
Value(s) applied	Monitoring duration	Values
	01/09/2017 to 31/12/2017	2883.22
	01/01/2018 to 31/12/2018	8788.12
	01/01/2019 to 31/12/2019	8482.10
	01/01/2020 to 01/02/2020	621.95
	Total	20775.38
Measurement methods and procedures	Main meter and Check meter with 0.2 accuracy class having facilities to measure export & import of energy are installed. The meters are sealed, maintained and calibrated by the DISCOM. Net electricity supplied to the grid is calculated based on export & import data (Net electricity supplied to grid = Export electricity – Import electricity). The export and import energy is measured continuously using above mentioned Main & Check meters. Export & Import readings of Main & Check meters are taken on monthly basis by authorized officer of NVVN in the presence of PP or representative of PP. The Reading of main & Check meter (both Export & Import readings) are recorded in log book on monthly basis. Check meter reading are considered when Main meter is found to be defective or stopped. The emission reduction from the project activity is computed based on JMRs and same would be crosschecked by the invoices prepared by M/s Precision Technik Private Limited to NVVN.	
Monitoring frequency	Monthly	
QA/QC procedures	The electricity meters are under the custody of the DISCOM and are calibrated by DISCOM as per their procedures. However, the project proponent ensures that the meters is being calibrated at least once in three years. Calibration certificates is maintained at the plant and the net energy export figures would be cross-verified against the monthly invoices. This approach is considered reliable and credible.	
Purpose of data	Calculation of baseline emissions	
Additional comment	The recorded data is checked periodically by the General Manager and discussed thoroughly with the Site Manager. The report is prepared by General Manager and is reviewed and maintained by the CEO for Verification. The data is achieved for the period of two years beyond the crediting period.	

Relevant SDG Indicator	8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training
Data/parameter	Quality of employment
Unit	-
Description	Quality of employment
Source of data	The training records for project activity

Value(s) applied	Monitoring duration	Values
	01/09/2017 to 31/12/2017	1
	01/01/2018 to 31/12/2018	3 (2 local+ 1 from O&M team)
	01/01/2019 to 31/12/2019	4 (2 local+ 2 from O&M team)
	01/01/2020 to 01/02/2020	1
	Total	9
Measurement methods and procedures	List of trainings and number of attendees	
Monitoring frequency	Annual	
QA/QC procedures	-	
Purpose of data	To Monitor the SDG 8 Indicator	
Additional comment	-	

Relevant SDG Indicator	8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities				
Data/parameter	Quantitative employment and income generation				
Unit	-				
Description	Quantitative employment and income generation				
Source of data	Employment records for project activity				
Value(s) of monitored parameter	Monitoring duration	Values			
	01/09/2017 to 31/12/2017	2			
	01/01/2018 to 31/12/2018	5			
	01/01/2019 to 31/12/2019	5			
	01/01/2020 to 01/02/2020	1			
	Monitoring Duration	01/09/2017 to 31/12/2017	01/01/2018 to 31/12/2018	01/01/2019 to 31/12/2019	01/01/2020 to 01/02/2020
	Male/female	1 Male/1 female	3 male and 2 female	3 male and 2 female	1 male
	Skilled	1 Man Skilled	3 Male Skilled	2 Women skilled	1 Male Skilled
	Un-Skilled	1 Women unskilled	2 Women unskilled	3 male unskilled	-
	Above number of jobs are permanent and full time in nature. Additional short-term services create temporary jobs. Both Male and female are employed as per the requirement of the organization and skill level and therefore equal pay is provided related to work done irrespective of the gender.				
Monitoring equipment	Plant employment records for number of employments and income of peoples greater than local level				
Measuring/reading/recording frequency:	Annual				
Calculation method (if applicable):					
QA/QC procedures	-				
Purpose of data	To Monitor the SDG 8 Indicator				
Additional comment	-				

Relevant SDG Indicator/Safeguarding Principle	SDG 13: Climate Action	
Data/parameter	Emission Reductions	
Unit	tCO ₂ e	
Description	Emission Reductions achieved during monitoring period	
Source of data	Calculated as per registered PDD and as per methodology	
Value(s) applied	Monitoring duration	Values
	01/09/2017 to 31/12/2017	2733
	01/01/2018 to 31/12/2018	8331
	01/01/2019 to 31/12/2019	8041
	01/01/2020 to 01/02/2020	590
	Total	19695
Measurement methods and procedures	This is calculated as per methodology requirement	
Monitoring frequency	As per monitoring period	
QA/QC procedures	This is calculated parameter , thus no QA/QC is required	
Purpose of data	To Monitor the SDG 13 Indicator	
Additional comment	-	

D.3. Implementation of sampling plan

Sampling is not required for the project activity.

SECTION E. Calculation of SDG outcomes

E.1. Calculation of baseline value or estimation of baseline situation of each SDG outcome

SDG 07: Affordable and Clean Energy

The value for affordable and clean energy is the summation of monthly net electricity supplied to the grid. The values are sourced from Monthly Joint Meter Reading records. The summation for current monitoring period is 20775.38 MWh.

SDG 08: Decent work and economic growth

The values for Decent work and economic growth is sourced from HR records/ Letter from O&M contractor and training records. 09 training conducted and 13 people are employed during the current monitoring period.

Further, the project participant ensures the proper health & safety trainings, environment policy to be followed during operation. The training documents are submitted to the DOE.

SDG 13: Climate Action

Calculation of baseline emission is as follows;

$$BE_y = EG_{BL, y} \times EF_{CO_2, grid, y}$$

Where,

$$EG_{BL, y} = 20775.38 \text{ MWh}$$

$$EF_{CO_2, grid, y} = EF_{grid, CM, y} = 0.948 \text{ tCO}_2\text{e/MWh}$$

Hence,

$$BE_y = 20775.38 \text{ MWh} \times 0.948 \text{ tCO}_2\text{e/MWh}$$

$$= 19,695 \text{ tCO}_2\text{e (Rounddown values)}$$

E.2. Calculation of project value or estimation of project situation of each SDG outcome

SDG 7: Ensure access to affordable, reliable, Sustainable and modern energy for all	Method: Monitored through energy meter. Net electricity is calculated from the electricity exported and imported from the grid. The reading noted by the NVVN (NTPC Vidyut Vyapar Nigam) and M/s Precision Technik Private Limited representative on monthly basis and provided in the share certificate. Frequency: Monthly QA/QC procedures: Net electricity supplied to the grid by the project activity will be cross checked with invoices submitted to Electricity Board. Purpose: To measure the electricity produced and supplied to the grid SDG.
SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Method: Ongoing data collection Frequency: Annually Purpose: To identify and record the number of trainings provided to the employees as well as employment generated due to project activity
SDG 13: Take urgent action to combat climate change and its impacts	Method: Monitored through energy meter and further calculated using emission factor. Net electricity is calculated from the electricity exported and imported from the grid. The reading noted by the NVVN (NTPC Vidyut Vyapar Nigam) and M/s Precision Technik Private Limited representative on monthly basis and provided in the share certificate. Further, the emission factor is calculated and kept fixed throughout the crediting period of the project using “Tool to calculate the emission factor for an electricity system”, v02.2.0 and referencing data from CEA database v6. Frequency: Every monitoring period Purpose: To calculate emissions avoided due to the project activity

E.3. Calculation of net benefits as difference of baseline and project values or direct calculation for each SDG outcome

Item	Baseline estimate	Project estimate	Net benefit
SDG 7: Affordable and Clean Energy	-	20775.38 MWh	20775.38 MWh
SDG 8 (Quantitative employment and income generation)	-	13 People employed directly from the project activity	13 People employed directly during the current monitoring period
SDG 8: Decent Work and Economic Growth- Quality of employment	-	09 employee training Conducted during the current monitoring period	09 employee training Conducted during the current monitoring period
SDG 13: Climate Action	19,695 tCO ₂ e	-	19,695 tCO ₂ e

E.4. Summary of ex-post values of each SDG outcome for the current monitoring period

Item	Baseline estimate	Project estimate	Net benefit
SDG 7: Affordable and Clean Energy	-	20775.38 MWh	20775.38 MWh
SDG 8 (Quantitative employment and income generation)	-	13 People employed directly from the project activity	13 People employed directly on regular basis
SDG 8: Decent Work and Economic Growth- Quality of employment	-	09 employee training Conducted during the current monitoring period	09 employee training Conducted during the current monitoring period
SDG 13: Climate Action	19,695 tCO ₂ e	-	19,695 tCO ₂ e

E.5. Comparison of actual value of outcomes with estimates in approved PDD

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
SDG 7: Affordable and Clean Energy	19106.51	20775.38
SDG 8 (Quantitative employment and income generation)	10	13 people employed directly
SDG 8 (Quality of employment)	03	9 employee training conducted during the current monitoring period
SDG 13: Climate Action	19,107 tCO ₂ e	19,695 tCO ₂ e

E.6. Remarks on difference from estimated value in approved PDD

The actual emission reduction for the monitoring is increased by 3.08%. The increase in actual emission reductions is due to more number of sunny days in the monitoring period, which is not in control of the project owner.

SECTION F. Stakeholder inputs and legal disputes

F.1. List all inputs/grievances which have been received for the project during the monitoring period together with their respective answers/actions

As a part of continuous feedback from stakeholders, the grievances register is being placed at site and is being continuously monitored and addressed through the grievances cell on regular basis and maintained in a register at site office.

During the monitoring period, no grievances have been received.

Further, the project is implemented on a barren land not in a high conservation value area therefore it does not involve any human resettlement. This can be demonstrated from the list of High Conservation Reserves of India that the project is not located in any of the areas³. Also, the project land is owned by the Project

³ <http://natureconservation.in/state-wise-list-of-conservation-reserves-of-india-updated/>

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Participant and mutually decided fair price is paid to the prior owner considering regional market value and precedent agreement copy is provided to DOE.

F.2. List all inputs/grievances from previous monitoring period where follow up action is to be verified in this monitoring period

Not Applicable

F.3. Provide details of any legal contest or dispute that has arisen with the project during the monitoring period

Not Applicable

Appendix 1. Major Breakdown Details

Date	Time Duration	Breakdown	Description
3-Sep-2017	7:00	8:00	Ground Fault
8-Sep-2017	11:20	11:20	TL work
10-Sep-2017	2:50	2:50	TL work
11-Sep-2017	10:50	10:50	Ground Fault(2 inverter)
12-Sep-2017	8:00	8:00	Ground Fault(2 inverter)
13-Sep-2017	3:10	3:10	Ground Fault(2 inverter)
15-Dec-2017	8:00	8:00	Inv-1 is in standby mode due to internal fault
5-Jan-2018	8:00	2:50	Inv-1 is in standby mode due to internal fault
6-Jan-2018	8:00	8:00	Ground Fault
10-Feb-2018	8:00	8:00	Ground Fault
13-Mar-2018	7:00	7:00	Ground Fault
16-Apr-2018	11:20	11:20	Ground Fault
22-Jun-2018	2:50	2:50	Ground Fault
1-Nov-2018	10:50	10:50	Inv-1 is in standby mode due to internal fault
12-Dec-2018	8:00	8:00	Inv-1 is in standby mode due to internal fault
12-Mar-2019	9:45	9:45	Inverter 10 fault
15-May-2019	8:00	8:00	Inverter 10 fault
3-Jun-2019	7:00	7:00	Ground Fault(2 inverter)
17-Jul-2019	11:20	11:20	Ground Fault
18-Aug-2019	2:50	2:50	Ground Fault
12-Oct-2019	10:50	10:50	Ground Fault
6-Jan-2020	8:00	2:50	Ground Fault

Appendix 2. Training Records

Sl. No.	Training Topic	Description	Trainer	Date
1.	VCB Training	- Preventive maintenance of battery charger and how to check batteries life. - How to properly check battery charger. - How to clean battery charger by blower.	Govind Patel	13/09/2017
2.	EHS Awareness	- Overview of EHS Management system - ISO 14001 & OHSAS 18001- Concept - EHS Manual - Work Permit System - Safety Observation - Lock Out Tag Out - EHS activities at site	EHS Officer	11/01/2018
3.	Heat Stroke	Do & Don't during Heat Stroke	Dr. Arvind	20/03/2018
4.	First Aid and Emergency Situation Handling	- First Aid Training - Emergency Situation Handling	Govind patel	23/06/2018
5.	Preventive Maintenance of Battery Charger and Module Cleaning	- Preventive maintenance of battery charger and how to check batteries life. - How to properly check battery charger - How to clean battery by blower	Govind patel	06/01/2019
6.	Oil Spill Control	Do & Don't during oil spill.	Ram Nath	25/07/2019
7.	Training on Solar DC	DC circuits	Ram Nath	19/09/2019
8.	Safety and Self Defensive Training	Safety and Self-defence training	Rohit Saina	12/12/2019
9.	Fire Training	- Operating Fire Extinguisher - Different type of fire outbreak - Handling Energy Situations	EHS Officer	17/01/2020