



**Verification and certification report form for
CDM project activities
(Version 03.0)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	Renewable Power Project by Emami Power Ltd UNFCCC ref.No-10393
Scale of the project activity	☒ Large-scale ☐ Small-scale
Version number of the verification and certification report	02
Completion date of the verification and certification report	19/08/2020
Monitoring period number and duration of this monitoring period	Monitoring period number-01 03/08/2017 – 30/09/2019; including first and last days of monitoring period
Version number of the monitoring report to which this report applies	03
Crediting period of the project activity corresponding to this monitoring period	Renewable crediting period ,Start date: 03/08/2017 Length: 07 years (03/08/2017 to 02/08/2024)
Project participants	Emami Power Limited
Host Party	India
Applied methodologies and standardized baselines	Selected Methodology: ACM0002 Version 17.0 – “Grid-connected electricity generation from renewable sources” Selected standardized baseline: N/A
Mandatory sectoral scopes	Sectoral scope : 1- Energy industries (renewable - / non-renewable sources)
Conditional sectoral scopes, if applicable	Not applicable
Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD	68,500 tCO ₂ e
Certified amount of GHG emission reductions or GHG removals for this monitoring period	60,717 tCO ₂ e
Name and UNFCCC reference number of the DOE	Earthood Services Private Limited UNFCCC ref.No- E-0066
Name, position and signature of the approver of the verification and certification report	Sign Dr. Kaviraj Singh Managing Director

SECTION A. Executive summary

The project activity involves electricity generation by solar energy and supplying the generated electricity to the Indian Grid. The project being a renewable energy generation activity, it leads to removal of fossil fuel dominated electricity generation. The project activity results in reductions of greenhouse gas (GHG) emissions that are real, measurable, and verifiable and plays beneficial role in the mitigation of climate change.

The project activity involves electricity generation by solar power and supplying the same to the Indian grid. This is renewable energy generation which will replace the fossil fuel dominated grid connected electricity generation. The project activity involves the installation of 20 MW AC (22.5 MWp DC) solar power project Villages: Udelhedi, Naharpur, Mannakhedi, Kumrada, Tehsil: Roorkee in Haridwar district of Uttarakhand, India. The project activity was commissioned on 30/03/2017 as verified against the commissioning certificates/16/.

The project is fully functional and the assessment team verified this during the site visit. The assessment team confirms that the total emission reductions achieved under this monitoring period 03/08/2017 – 30/09/2019 (including both days) is 60,717 tCO₂e.

The basic details of the project activity are mentioned below:

Project title	Renewable Power Project by Emami Power Ltd
UNFCCC registration number	10393
ESPL Ref.No-	CDM.VER.19.31
Date of registration	21/08/2017
Sectoral scope	1 - Energy industries (renewable/ non-renewable sources).
Methodology/ies applied	Approved consolidated baseline methodology ACM0002, Version 17.0
Project participant	Emami Power Limited
Location of Project Activity	Haridwar district, Indian State of Uttarakhand
Geographical coordinates	Latitude: 29° 45' 11.18" N, Longitude: E 77° 49' 18.76" E

Scope of verification

The scope of the verification was limited to the monitoring period covered under the current monitoring period 03/08/2017 to 30/09/2019 of the registered CDM PA "Renewable Power Project by Emami Power Ltd". The verification is the periodic independent review and *ex post* determination by Earthood of the monitored reductions in GHG emissions that have occurred as a result of the registered CDM project activity during the defined monitoring period.

The scope of the verification is to establish/verify that:

- The project activity has been implemented and operated as per the registered PDD, and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- The monitoring report and other supporting documents provided are complete in accordance with the latest applicable version of the completeness checklist for requests for issuance of CERs, verifiable, and in accordance with applicable CDM requirements;
- The actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan, any revised approved monitoring plan, the approved methodology including applicable tool(s) and/or, where applicable, the approved standardized baseline;
- The data recorded and stored as per the monitoring methodology including applicable tool(s) and, where applicable, the standardized baseline.

Verification process

The verification process involves an agreement with project participant for verification scope and defined monitoring period in accordance with latest valid CDM PS. The monitoring report version 01, dated 14/10/2019 was published and verification was performed as per latest valid CDM Standards i.e., CDM PS, VVS and latest valid CDM PCP for PAs/1,2 & 3/. The desk review, onsite assessment, interview, reporting of findings, preparation of draft verification report followed by independent technical review (internal quality check) were performed as stated in further sections of this report.

Conclusion

Earthood has performed the first verification of the CDM project “Renewable Power Project by Emami Power Ltd” having UNFCCC Ref. Number 10393. The verification includes confirming the implementation of the project as per description in the PDD, the monitoring plan of the PDD and the application of the monitoring methodology as per ACM0002. ver. 17 - Grid-connected electricity generation from renewable sources /12/. Earthood confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. The emission reductions from the CDM project activity 10393 “Renewable Power Project by Emami Power Ltd” in India during the period 03/08/2017 to 30/09/2019 (first and last days included) amount to 60,717 tCO₂e.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader and Local Expert	IR	Gautam	Ashok	Central office	Y	Y	Y	Y
2.	Verifier and methodological expert	EI	Kumar	Vivek	Central office	Y	N	N	Y
3	Technical Expert	IR	Gautam	Ashok	Central office	Y	Y	Y	Y

B.2. Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Garg	Shreya	Central Office
2.	Expert to TR	IR	Garg	Shreya	Central Office
3.	Approver	IR	Singh	Kaviraj	Central Office

SECTION C. Application of materiality

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Omissions and misstatements in data transfer from hand written data in the JMR to ER calculation sheet.	Low	Ineffective quality control of data transfer due to unclear QA/QC procedure.	Quality procedure followed at site to be checked. It is to be demonstrated by the PP that how to transfer data and how this can be crosschecked. Relevant site personnel has been interviewed to confirm whether procedure is actually conducted.

2.	Missing data due to failure of measurement equipment	Low	The monitoring plan defines emergency procedures in case malfunctioning or failure of meter. Further, check meters are also installed onsite.	It is to be checked if related main meters are installed as per monitoring plan. Relevant site personnel has been interviewed to confirm whether the emergency procedure is known to them. To be checked if the equipment is malfunctioning and the accuracy and reliability of data for the concerned period cannot be ensured, the relevant emission reductions have been claimed or not.

C.2. Consideration of materiality in conducting the verification

In accordance with CDM VVS for PAs, Version 02.0 para 326 the prescribed thresholds for materiality for CDM PAs are as under;

Emission Reductions (tCO ₂ e)/year	500,000 or more	300,001 to 499,999	300,000 or less	Small Scale CDM PAs	Micro Scale CDM PAs
Materiality Threshold (para 326)	0.5%	1.0%	2.0%	5.0%	10.0%

The applicable materiality threshold is 2% as project activity.

Particulars / Monitoring Report	MR Version (Public)	MR Version (Revised/Final)
Emission Reductions Achieved (tCO ₂ e) in this monitoring period	62,096 tCO ₂ e	60,717 tCO ₂ e
Applicable Threshold (%) as per para 326(c) of CDM VVS for PAs Version 02.0	2%	2%

The verification team has identified the impact of errors observed and those were corrected by PP during verification for all monitoring parameter at individual level. The extrapolated impact on ERs is also provided for parameters individually and in aggregated manner in the end.

Monitored Parameter (Symbol / Description)	Reporting Frequency	Number of Discrete Data (Total)	Sample selected for verification	Type of error identified	Impact on ERs	
					ERs impacted (Sample)	ERs impacted (Population based on extrapolation)
EG _{PJ,y} Quantity of net electricity generation	Monthly	26(100%)	26 (100%)	Value of ERs achieved in the monitoring period as reported in the published MR was not	No impact.	No impact

supplied by the project plant/unit to the grid in year y in MWh				consistent with ER sheet. Value of the parameter for September 2019 reported in the ER sheet was not consistent with the same as recorded in the JMR.		
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Based on the above table it can be confirmed that the applicable materiality threshold is not breached for the registered PA as per CDM VVS. Complete set of data were verified and no errors were identified during the verification of data from their respective source.

SECTION D. Means of verification

D.1. Desk/document review

A desk review was conducted by the verification team that included

- a) A review of the data and information presented to verify its completeness;
- b) A review of the registered monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- c) An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

A complete list of documents/evidences reviewed is included as Appendix 3.

D.2. On-site inspection

Duration of on-site inspection: 31/01/2020				
No.	Activity performed on-site	Site location	Date	Team member
1	An assessment of the implementation and operation of the registered CDM project activity as per the registered PDD.	Haridwar district of Uttarakhand.	31/01/2020	Ashok Gautam
2	A review of information flows for generating, aggregating and reporting the monitoring parameters;	Haridwar district of Uttarakhand.	31/01/2020	Ashok Gautam
3	Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan;	Haridwar district of Uttarakhand.	31/01/2020	Ashok Gautam
4	A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;	Haridwar district of Uttarakhand.	31/01/2020	Ashok Gautam
5	A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;	Haridwar district of Uttarakhand.	31/01/2020	Ashok Gautam
6	A review of calculations and assumptions made in determining the GHG data and emission reductions;	Haridwar district of Uttarakhand.	31/01/2020	Ashok Gautam
7	An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters;	Haridwar district of Uttarakhand.	31/01/2020	Ashok Gautam

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			

1.	Sahni	Amit	Plant Head(EPL)	31/01/2020	Electricity Generation Records (monthly energy statements, Invoices and break up sheets), Reliability & accuracy of readings considered for emission reduction calculations, Calibration procedure	Ashok Gautam
2.	Boudhanwala	Dharamesh	Site Incharge(L&T)	31/01/2020	Monitoring and measuring system, Collection of measurements, Observations of established practices and Data Verification of monitoring parameters	Ashok Gautam
3.	Tiwari	Abhishek	Electrician (O&M) PREPL	31/01/2020	Calibration procedure of meters	Ashok Gautam
4.	Pandey	Ashutosh	Electrician (O&M) PREPL	31/01/2020	Monitoring and measuring system, Collection of measurements, Observations of established practices and Data Verification of monitoring parameters	Ashok Gautam

D.4. Sampling approach

No sampling approach has been applied by the verification team as all the monthly reported figures in the MR/06/ and the ER sheet/08/ were checked from the actual records.

D.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form	-	-	-
Compliance of the project implementation and operation with the registered PDD	-	-	-
Post-registration changes	-	-	-
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines	-	CAR #1	-

Compliance of monitoring activities with the registered monitoring plan	-	-	-
Compliance with the calibration frequency requirements for measuring instruments	-	CAR #2	-
Assessment of data and calculation of emission reductions or net removals	-	CAR #3	-
Assessment of reported sustainable development co-benefits	-	-	-
Global stakeholder consultation	-	-	-
Others (please specify)	CL#1(inconsistency/typo error)-	-	
Total	1	3	-

SECTION E. Verification findings

E.1. Compliance of the monitoring report with the monitoring report form

Means of verification	The monitoring report form used is CDM-MR-FORM version 07.0, which was the appropriate form, and the latest version available at the time of verification. All the sections of the form were filled as per the guidelines and gave all the relevant details.
Findings	No issues identified and hence finding was not raised for this section.
Conclusion	The monitoring report is found to be complying with the monitoring report form.

E.2. Remaining forward action requests from validation and/or previous verifications

This is first verification of the project activity. There are no FAR(s) from validation /10 /that need to be closed during this verification.

E.3. Compliance of the project implementation and operation with the registered project design document

Means of verification	This project activity is the generation of electricity from solar PV supplying the generated electricity to the Indian grid . The project is located in Haridwar district of Uttarakhand state in India and has an installed capacity of 20 MW AC (22.5 MWp DC). This was confirmed from document review of commissioning certificate /16/. The commercial operation of the project activity had been started on 30/03/2017, which was verified vide commissioning certificate/16/ . The technical specifications of equipments (Solar PV module, Inverter, Transformers were verified through the nameplate details (imprinted/placed at the equipment) physically checked during the site visit and were found to be consistent with the details provided in the registered PDD /09/. The project is located between latitude 29°,45',11.18"N and longitude 77°,49',18.76" E. Location of the project was verified through Google Map (https://www.gps-coordinates.net/) and found consistent with the same mentioned in the registered PDD and MR. During the site visit ,the assessment team has observed that the project activity having dedicated metering arrangement at project site. There is one set of energy meters (Main and check meter) installed at site and electricity exported and imported by the project activity is continuously monitored through these meters. The project activity is further connected at 132 kV DISCOM substation where the generated electricity fed to the Indian grid. The PP has signed PPA/19/ with state utility for the sale of electricity to the grid and has been supplying electricity in compliance with the PPA as confirmed from the monthly invoices /14/. The project was registered as a CDM project on 21/08/2017 /13/. The PP has considered a renewable crediting period for the project activity from 03/08/2017 to 02/08/2024. This is the first verification of the project activity
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	covering the period from 03/08/2017 to 30/09/2019. The project activity is fully functional and the assessment team verified this during the site visit/21/. In addition to the physical inspection of the site, the following documents have been reviewed by the assessment team during the site visit to verify the project implementation: i. Commissioning certificate/16/ ii. Power Purchase Agreement/19/ iii. Invoices raised by the PP to State utility /14/ iv. Testing certificates of all energy meters/17/ The information relating to the project implementation, provided in the Monitoring Report/05/ is consistent with that stated in the registered PDD/09/. The data and variables provided in the monitoring report are the same as stated in the registered PDD. Total emission reductions achieved under this monitoring period 03/08/2017 to 30/09/2019 (including both days) is 60,717 tCO_{2e}.
Findings	No finding was raised
Conclusion	• In view of the information's verified during the site visit, the verification team is able to confirm that all physical features (technology, project equipment, and monitoring and metering equipment) of the registered CDM project activity are in place and that the project participants have operated the project activity as per the registered PDD. • No information with regard to data and variables was identified that may surpass the estimated quantity of Ers in the registered PDD. • The emission reductions achieved during the current monitoring period are (60,717 tCO_{2e}), that is within the estimated quantity (68,500 tCO_{2e}) in the registered PDD for the comparable period.

E.4. Post-registration changes

E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents¹

>> There are no temporary deviations from registered monitoring plan or applied methodology. It was verified and confirmed from the registered PDD/09/; the applied methodology/12/ and the on-site verification.

E.4.2. Corrections

>> There are no corrections during the current monitoring period.

E.4.3. Changes to the start date of the crediting period

>> There is no change to the start date of the crediting period. It was verified and confirmed from the UNFCCC project webpage/13/.

E.4.4. Inclusion of a monitoring plan

>> Not applicable

E.4.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents

>> There are no permanent changes from the registered monitoring plan/09/ or applied methodology/12/ during the current monitoring period.

E.4.6. Changes to the project design

>>Not applicable

¹ Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

E.4.7. Changes specific to afforestation and reforestation project activities

>> Not applicable

E.5. Compliance of the registered monitoring plan with applied methodologies, applied standardized baselines, and other applied methodological regulatory documents

Means of verification	The monitoring plan as contained in the registered PDD /09/ has been reviewed against the monitoring requirements of the applied methodology ACM0002 Version 17.0. Monitoring plan in the registered PDD includes the parameter $EG_{PJ,y}$ – Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh. As per the applied methodology ACM0002 version 17.0 “Quantity of net electricity generation supplied by the project plant/unit to the grid in year y” shall be measured through electricity meters. In accordance with the registered monitoring plan this parameter ($EG_{PJ,y}$) is directly monitored through the dedicated metering system installed at project site. This parameter “Quantity of net electricity generation supplied by the project plant/unit to the grid in year y” ($EG_{PJ,y}$) is being calculated as difference of Electricity exported to the state electricity board by the project activity (EG_{export}) and Electricity imported from the grid by the project activity (EG_{import}) and those are being measured by energy meters of accuracy class 0.2s located at project site. These export and import parameters are measured continuously and at least monthly recording. This is in line with methodology and is accepted. Joint Meter Reading is being taken jointly by the officials of state utility and project participant's representative and accordingly JMR Report is being prepared. The monitoring methodology applies consistently the choice of the option selected for monitoring of baseline emissions. The monitoring plan provide procedures for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period. The final MR has been reviewed and confirmed that the procedure for data uncertainty, emergency preparedness, roles and responsibility, operational and management structure are appropriately described. The monitoring plan completely describes all measures to be implemented for monitoring of all parameters required. The monitoring plan described the positioning of the equipment. Calibration frequency for Energy meters is once in 5 years. Also CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006 /22/ which is considered as national standard mentions that “All interface meters shall be tested at least once in five years.” Hence calibration frequency once in 5 years considered for the project activity is found to be appropriate. In view of the above discussion, it has been concluded that the PP got sufficient ability to implement the monitoring plan. Values of the parameter “Quantity of net electricity generation supplied by the project plant/unit to the grid in year y” is directly sourced from the monthly “JMR” issued by state utility(UPCL) /15/. The JMRs are prepared and endorsed by UPCL, an external government agency and the PP has no influence in the entire procedure. Hence, the data issued by the state electricity board through the JMR is deemed authentic. During the site visit, it was observed that, the project activity is connected to the grid through an appropriate power evacuation system. Appropriate metering system and calculation procedures are transparently described in the monitoring plan to enable accurate determination of emission reductions achieved by the project activity.
Findings	No finding was raised.
Conclusion	The monitoring plan outlined in the registered PDD is in accordance with the applied methodology /12/ and correctly applied by the registered CDM project activity.

E.6. Compliance of monitoring activities with the registered monitoring plan**E.6.1. Data and parameters fixed ex ante or at renewal of crediting period****E.6.1.1 Operating Margin Emission Factor of NEWNE Electricity Grid ($EF_{grid,OM,y}$ tCO_{2e} /MWh)**

Means of verification	The value of this parameter is considered as 0.9941. This was checked with the registered PDD /09/ and CO2 Baseline Database for Indian Power Sector", version 11 published by the Central Electricity Authority, Ministry of Power, Government of India /20/.
Findings	No finding was raised
Conclusion	The value in the monitoring report /06/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PDD (page 24). The applied value is correct and justified.

E.6.1.2 Build Margin Emission Factor of NEWNE Electricity Grid ($EF_{grid,BM,y}$ tCO_{2e} /MWh)

Means of verification	The value of this parameter is considered as 0.9285. This was checked with the registered PDD /09/ and CO2 Baseline Database for Indian Power Sector", version 11 published by the Central Electricity Authority, Ministry of Power, Government of India /20/.
Findings	No finding was raised
Conclusion	The value in the monitoring report /06/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PDD/09/ (page 24). The applied value is correct and justified.

E.6.1.3 Combined Margin Emission Factor of NEWNE Electricity Grid ($EF_{grid,CM,y}$ tCO_{2e} /MWh)

Means of verification	The value of this parameter is considered as 0.9777. This was checked with the registered PDD /09/ and CO2 Baseline Database for Indian Power Sector", version 11 published by the Central Electricity Authority, Ministry of Power, Government of India /20/.
Findings	No finding was raised.
Conclusion	The value in the monitoring report /06/ and corresponding emission reduction calculations spreadsheet /08/ are consistent with the registered PDD/09/ (page 25). The applied value is correct and justified.

E.6.2. Data and parameters monitored

Quantity of net electricity generation supplied by the project plant/unit to the grid in year y , $EG_{PJ,y}$ (MWh)

Means of verification	Criteria/Requirements		Assessment/Observation	
	Measuring /Reading /Recording frequency		The parameter is calculated as difference of EG_{Export} and EG_{Import} and recorded monthly basis in line with the approved monitoring plan. $EG_{PJ,y} = EG_{Export} - EG_{Import}$ Where, EG_{Export} = Electricity exported by the project activity to the grid EG_{Import} = Electricity imported by the project activity to the grid	
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)		Yes. In line with the approved monitoring plan, this parameter is recorded on monthly basis in the breakup sheets issued by state utility.	
	Monitoring equipment		This parameter is measured through ABT meters installed at substation. The accuracy of the monitoring equipment used to	

		measure the values is 0.2s, which is as per the revised approved PDD/09/ which is as per the norm defined in the PPA/19/. Details of the energy meters is provided under section E.7 of this report.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate this parameter is 0.2s as verified from the physical inspection of the project activity, which is as per the registered CDM PDD/09/ which is as per the norm defined in the PPA/19/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. Calibration certificates/18/ are verified and confirmed that accuracy of monitoring instruments is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is once in 5 years /09/.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. The calibration frequency is in line with the monitoring plan as outlined in the registered PDD/09/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by state utility(UPCL) which is a NABL Accredited entity/17/.
	How were the values in the monitoring report verified?	The monthly values of this parameter are directly sourced from JMRs prepared by state utility /15/. The PP has correctly reported the monthly values in the emission reduction spread sheet/08/. The value of $EG_{PJ,y}$ for the current monitoring period is 62,113 MWh.
	If applicable, has the reported data been cross-checked with other available data?	Monthly reported values of $EG_{PJ,y}$ for the current monitoring period were further cross-checked with the monthly invoices raised by the PP /14/ to state utility and found to be consistent.

	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, all the stakeholders, namely, the Grid Authority (UPCL)), and the PP implemented the adequate QA/QC procedures. The electricity exported and imported by project activity is recorded by main and check meters (billing meters) installed at project site. All the tri-vector energy meters have the capability of continuous measurement, which was verified during the site visit. Joint meter reading is taken by the officials of UPCL in the presence of the PPs representative at the metering points. JMR records the readings of both the main and check meter. Both values have been checked and are found to be comparable..
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	CAR #1 was raised and resolved.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.3. Implementation of sampling plan

Means of verification	Not applicable
Findings	Not applicable
Conclusion	Not applicable

E.7. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	As per the monitoring plan in the registered PDD/09/ the meters are to be tested and calibrated once in 5 years. The calibration frequency has been followed in the current monitoring period. The project activity metering has been physically inspected during the site visit. The details of monitoring equipment involved in the project activity and their calibration dates are mentioned in Annexure- 1 of the MR/06/ and are summarised in the tables below. All the meters are of accuracy class of 0.2s and a calibration frequency of once in 5 years.			
	Meter Sr.No	Date of calibration	Validity of calibration	Is there any delay in calibration?
	Main meter(old) :UKD02649	30/03/2017	29/03/2022	N
	Check meter(old): UKD02652	30/03/2017	29/03/2022	N
	Mainmeter(New):UKD03071	12/12/2018	11/12/2023	N
	Check meter(new): UKD03072	12/12/2018	11/12/2023	N
The above meter details have been verified through the following means: i. Physical inspection of the meters during the site visit				

	ii. Interviewing the staff at project site iii. Calibration certificates of old and new meters It is evident from the above table that calibration for all the meters has been conducted as per the calibration frequency mentioned in the registered PDD/09/. It is also noted that all the existing old meters were replaced with new ABT meters by state utility. The assessment team has verified the meter replacement certificates/18/ and confirmed that the new meters were of same make ,accuracy class (0.2s) as old one and calibrated before installation. As per the clause 14.5 of the PPA, <i>“the UPCL shall test all the metering equipment for accuracy in presence of representative of project participant and either party (PP and/or UPCL) may, however, elect to get the meters tested at anytime they so desire at their own cost, in presence of the other party”</i>. Furthermore as per clause 14.12 of PPA <i>“During the period of checking and calibration of both meters simultaneously, another export and import meter duly calibrated and supplied by Solar Photovoltaic Plant would be installed by UPCL. For this purpose, one spare set of meters of relevant standard as per 14.1 clause would be required to make available with the Solar Photovoltaic Power Plant at all times”</i>. As indicated in the meter replacement certificate, the state utility (UPCL) has calibrated the energy meters during the current monitoring period, hence the existing meters were replaced with another set of meters in line with the provisions as mentioned under clause 14.12 of PPA. Also the replacement of meters is completely under preview of state utility and PP has no control over the same as confirmed through interviews of site personnel and PPA signed by the PP with state utility/21/. It is verified through the registered PDD and PPA signed by the PP with state utility that the state utility (UPCL) is the buyer of generated electricity and sole entity responsible for calibration of meters. During the site visit, the assessment team has verified the latest calibration reports of meters installed at site and confirmed that the meters were working satisfactorily, and the errors observed within permissible limits. The assessment team has checked the monthly JMRs that mention the identification of meters whose data used to prepare JMRs. The meters are duly approved, installed, tested, sealed and in the custody of the state utility. The PP has no control over the same. CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006 /22/ which is considered as national standard mentions that “All interface meters shall be tested at least once in five years.” Hence, the calibration frequency of once in 5 years, mentioned in the registered PDD for the meters is appropriate.
Findings	CAR #2 was raised and resolved
Conclusion	The assessment team has confirmed that the calibration is conducted at the frequency following the relevant industry standard as specified by the methodology /03/ and the monitoring plan contained in the registered PDD /09/. Therefore, the requirements of paragraph 371 of CDM-VVS for PAs, version 02.0 have been met.

E.8. Assessment of data and calculation of emission reductions or net removals

E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	The verification team verified that a) A complete set of data for the monitoring period was available for the monitoring period and the verification of each monitoring parameter is elaborated under Section E.6.2 of this report. The complete monitoring data is also presented in the corresponding ER sheet /08/ of final Monitoring Report /06/. b) The information provided in the monitoring report was crosschecked with other sources, wherever appropriate and available, and such information is also included under Section E.6.2 of this report.
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	c) The calculations of baseline emissions as presented in the corresponding ER sheet of final Monitoring Report were checked and found to be consistent with the formulae and methods described in the registered monitoring plan and the applied methodology. d) All assumptions used in the emission calculations were found appropriate and therefore justified e) Appropriate emission factors and other reference values have been correctly applied. This has also been elaborated under Section E.6.1 of this report. f) No standardized baseline was prescribed in the registered PDD and therefore it has not been applied. The baseline emissions are the product of net electricity supplied to the grid expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor. Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors. $BE_y = EG_{PJ,y} * EF_{grid, CM, y}$ Where: BE_y = Baseline emissions in year y (tCO_{2e} /yr) $EG_{PJ,y}$ =Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr) $EF_{grid,CM,y}$= Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” (tCO_{2e} /MWh) As per the applied methodology ACM0002 version 17.0, if the project activity is the installation of a new grid-connected renewable power plant/unit at a sitewhere no renewable power plant was operated prior to the implementation of the project activity, then: $EG_{PJ,y} = EG_{facility,y}$ Where, $EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh) As per the registered PDD, combined margin emission factor is 0.9777 tCO_{2e} /MWh. Hence the baseline emissions for the project activity for the current monitoring period are as follows. $BE_y = EG_{facility,y} * EF_{grid, CM, y}$ $BE_y = 62,113 * 0.9777 = 60,717 tCO_{2e}$ Note: Start date of current monitoring period is 03/08/2017, however as per the JMR, billing cycle was from 01/08/2017 to 31/08/2017. Hence, the PP has calculated the value of $EG_{PJ,y}$ for the period from 03/08/2017 to 31/08/2017 using standard apportioning method as reported in ER calculation sheet. The approach followed by the PP is found to be appropriate hence accepted.
Findings	CAR #3 was raised and resolved.
Conclusion	In line with the paragraph 374 of VVS for PAs version 02.0, the verification team confirms that: a) The complete data was available and is duly reported; b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section E.6.2 of this report); c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals were followed; d) Appropriate emission factors and other reference values were correctly applied.

E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

Means of verification	The registered PDD/09/ and applied monitoring methodology/12/ does not prescribe any project emissions to be considered. The onsite visit and project design also did not reveal any potential source to be considered in this regard.
Findings	No finding was raised
Conclusion	No project emissions were required to be calculated.

E.8.3. Calculation of leakage GHG emissions

Means of verification	The registered PDD/09/ and applied monitoring methodology/12/ does not prescribe any leakage emissions to be considered. The onsite visit and project design also did not reveal any potential source to be considered in this regard.
Findings	No finding was raised
Conclusion	No leakage emissions were required to be calculated.

E.8.4. Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	As elaborated above, the entire emission reductions from the project activity were based on baseline emissions. The calculations presented in this regard in the final monitoring report and corresponding ER calculation sheet were found appropriate and complying with the provisions prescribed in the monitoring plan of registered PDD/09/ and applied methodology. The verification team confirms that an audit trail that contains the evidence and records that validated the stated figures were checked and found acceptable.
Findings	No finding was raised
Conclusion	The verification team confirms that a) The complete data was available and is duly reported; b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section E.6.2 of this report); c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project emissions and leakage emissions were followed; d) Appropriate emission factors and other reference values were correctly applied. e) There is no pro-rate approach was applied in the current monitoring period as entire monitoring period falls into period that is after the end of first commitment period of Kyoto Protocol. The total number of ERs achieved during the current monitoring period is 60,717 tCO_{2e}.

E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification	As verified and evident from the final Monitoring Report /06/ and corresponding ER sheet /08/, the actual emission reductions achieved by the project activity in the current monitoring period were found lesser than (11% lower) the estimated quantity in the registered PDD/09/ for the comparable period.	
	Estimated Ers for comparable period as per registered PDD (tCO _{2e})	Actual Ers achieved in the current monitoring period (tCO _{2e})
	68,500	60,717
Findings	No finding was raised	
Conclusion	The actual emission reductions achieved by the project activity are lower than the estimated quantity of ERs in the registered PDD/09/. Accordingly, it was accepted by the verification team.	

E.8.6. Remarks on difference from estimated value in registered PDD

Means of verification	The actual emission reductions were less than the estimation in the registered
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	PDD/09/ for an equivalent length of the monitoring period therefore no further explanation is required.
Findings	No finding was raised
Conclusion	The actual ERs are less than the estimated quantity of ERs as given in the registered PDD/09/, which is appropriate and accepted.

E.8.7. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards

Means of verification	Based on the assessment done in section E.8.1 to E.8.6, the verification team is able to certify that the emission reductions from the CDM project activity 10393 “Renewable Power Project by Emami Power Ltd” in India during the period 03/08/2017 to 30/09/2019 (including both days) is 60,717 tCO _{2e} .		
		First commitment period (up to 31 Dec 2012) (tCO _{2e})	01 Jan 2013 onwards (tCO _{2e})
	Emission Reductions	NA	60,717
Findings	No finding was raised		
Conclusion	Actual GHG emission reductions achieved during period starting from 1 st January 2013 onwards was verified as 60,717 tCO _{2e} .		

E.9. Assessment of reported sustainable development co-benefits

Means of verification	Not applicable
Findings	Not applicable
Conclusion	Not applicable

E.10. Global stakeholder consultation

Means of verification	Not applicable
Findings	Not applicable
Conclusion	Not applicable

SECTION F. Internal quality control

>> The draft verification report that is prepared by verification team is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable CDM rules/requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team.

During the technical review process additional findings may be identified or the closed out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to UNFCCC. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that needs to be resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized on behalf of Earthood Services Private Limited.

SECTION G. Verification opinion

>> Earthood Services Private Limited (ESPL), contracted by Emami Power Limited, has performed the independent verification of the emission reductions for the CDM project activity 10393 “Renewable Power Project by Emami Power Ltd” in India for the monitoring period 03/08/2017 to 30/09/2019 (including both days) as reported in the Monitoring Report (public) Version 01 dated 14/10/2019. The Emami Power Limited is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

ESPL commenced the verification based on the baseline and monitoring methodology ACM 0002 Version 17.0, the monitoring plan contained in the registered PDD Version 02 dated 30/06/2017 and Monitoring Report (public) Version 01 dated 14/10/2019.

ESPL verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. ESPL planned and performed the verification by obtaining evidence and other information and explanations that ESPL considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

The verification team confirms that:

- The project activity was found completely implemented as per the description given in the registered PDD.
- The actual operation conforms to the description in the registered PDD.

SECTION H. Certification statement

>> Earthood Services Private Limited (ESPL), contracted Emami Power Limited, has performed the independent verification of the emission reductions for the CDM project activity 10393 "Renewable Power Project by Emami Power Ltd" in India for the monitoring period 03/08/2017-30/09/2019 (including both days) as reported in the Monitoring Report (Final) Version 03 dated 01/06/2020. The Emami Power Limited is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity.

ESPL commenced the verification on the basis of the baseline and monitoring methodology ACM0002 Version 17.0, the monitoring plan contained in the PDD Version 02 dated 30/06/2017, Monitoring Report (public) Version 01 dated 14/10/2019 as per the methodology described under Section D of this report.

ESPL verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. ESPL planned and performed the verification by obtaining evidence and other information and explanations that ESPL considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion, the GHG emissions reductions reported for the project activity for the period 03/08/2017-30/09/2019 are fairly stated in the Monitoring Report (final) Version 03 dated 01/06/2020. The GHG emission reductions were calculated correctly based on the approved baseline and monitoring methodology ACM0002 Version 17.0 and the monitoring plan contained in the PDD Version 02 dated 30/06/2017.

Earthood Services Private Limited is able to certify that the emission reductions from the CDM project activity 10393 "Renewable Power Project by Emami Power Ltd" in India during the period 03/08/2017 – 30/09/2019 (including both days) amount to 60,717 tCO_{2e}.

Verified and certified emission reductions as per commitment period:

Commitment period	Amount
Upto 31/12/2012 (1 st commitment period)	Not Applicable/Nil
From 01/01/2013 onwards	60,717 tCO _{2e}

Appendix 1. Abbreviations

Abbreviations	Full texts
General	
ACM	Approved Consolidated Methodology
AM	Approved Methodology
AMS	Approved Methodology for SSC Projects
BE	Baseline Emission
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CH ₄	Methane
CL	Clarification Request
CM	Combined Margin
CME	Coordinating/Managing Entity
CO ₂	Carbon di oxide
CP	Crediting Period
CPA DD	Component Project Activity Design Document
DNA	Designated National Authority
DR	Desk Review
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Green House Gas
GSC/GSP	Global Stakeholder Consultation Process
GW	Giga Watt
GWh	Giga Watt hour
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
Kw	kilo Watt
kWh	kilo Watt hour
LoA	Letter of Approval/Authorization
LSC	Local Stakeholder Consultation Process
MoC	Modalities of Communication
MoV	Means of Validation
MP	Monitoring Plan
MW	Mega Watt
MWh	Mega Watt hour
N ₂ O	Nitrous Oxide
OM	Operating Margin
PCP	Project Cycle Procedure
PDD	Project Design Document
PE	Project Emission
PLF	Plant Load Factor
PoA DD	Programme of Activities Design Document
PP	Project Participant
PS	Project Standard
RFR	Request for Registration
Tco _{2e}	Tonnes of Carbon di oxide equivalent
TPH	Tonnes Per Hour
UNFCCC	United Nations Framework Convention on Climate Change
V	Version
VVS	Validation and Verification Standard
Project Specific	

ABT	Availability Based Tariff
DISCOM	Distribution Company
EPC	Engineering and Procurement Contractor
GOI	Government of India
JMR	Joint Meter Reading
L&T	Larsen & Toubro
O&M	Operation and Maintenance
PREPL	Param Renewable Private Limited
PPA	Power Purchase Agreement
QA/QC	Quality Assurance/Quality Control
RMP	Revision in Monitoring Plan
UPCL	Uttarakhand Power Corporation Limited

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Ashok Gautam		
Country	India		
Education	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)		
Experience	16 Years +		
Field	Energy, Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-I.A., AMS-I.C., AMS-I.E, AMS-II.D., AMS-II.G., AMS-III.E., AMS-III.H., AMS-III.Q, AMS-III.Z., AMS-III.AV., AM0029, AM0025, AM0056, ACM0001, ACM0002, ACM0004, ACM0012, ACM0006, AM0018, ACM0009, AM0034, AMS.I.B, ACM0003		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1)		
Reviewed by	Shreya Garg	Date	23/10/2019
Approved by	Anshika Gupta	Date	23/10/2019

Competence Statement	
Name	Shreya Garg
Country	India
Education	M.Sc. (Climate Science & Policy), TERI University
Experience	6 Years +
Field	Climate Change
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES

Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	Date	01/03/2018
Approved by	Ashok Gautam	Date	01/03/2018

Competence Statement			
Name	Vivek Kumar Ahirwar		
Country	India		
Education	B.E. (Mechanical Engineering) M.Tech (Energy Management)		
Experience	10 Years +		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	ACM0002, AMS.I.D		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	YES (1.1, 1.2, 13.1)		
Reviewed by	Shreya Garg	Date	11/09/2018
Approved by	Anshika Gupta	Date	11/09/2018

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	UNFCCC	Standard: CDM PS for PAs	Ver. 02.0	Others
2	UNFCCC	Standard: CDM PCP for PAs	Ver. 02.0	Others
3	UNFCCC	Standard: CDM VVS for PAs	Ver. 02.0	Others
4	UNFCCC	Form: CDM-MR-FORM	Ver. 07.0	Others
5	Emami Power Limited	Monitoring Report (published)	Ver.01,dated 14/10/2019	PP
5.1	Emami Power Limited	Monitoring Report	Ver.02,dated 21/02/2020	PP
6	Emami Power Limited	Monitoring Report	Ver.03,dated 01/06/2020	PP

		(revised/final)		
7	Emami Power Limited	ER Spread sheet (draft)	Ver.01,dated 14/10/2019	PP
8	Emami Power Limited	ER Spread sheet (revised/final)	Ver.02,dated 21/02/2020	PP
9	Emami Power Limited	Registered PDD	Ver.02,dated 30/06/2017	Others
10	DOE(Applus+Certification)	Validation report	Version 02,dated 06/10/2017	Others
11	MITCON Consultancy	Plant layout	-	PP
12	UNFCCC	ACM0002	Version 17.0 dated 13/05/2016	Others
13	UNFCCC	Project Webpage	https://cdm.unfccc.int/Projects/DB/Applus1501710196.92/view	Others
14	Emami Power Limited	Monthly Invoices raised by the PP to state utility	For the period 03/08/2017 to 30/09/2019	PP
15	UPCL	Monthly JMRs issued by state utility	For the period 03/08/2017 to 30/09/2019	PP
16	UPCL	Commissioning certificate	Dated 31/03/2017	PP
17	UPCL	Calibration certificates for both the meters	Old meters- dated 30/03/2017 New Meters: Dated 10/10/2018	PP
18	UPCL	Meter replacement certificate	Dated 12/12/2018	PP
19	UPCL	Power Purchase Agreement between Uttarakhand Power Corporation Limited and Emami Power Limited	Dated 31/03/2016	PP
20	CEA	CO ₂ Baseline Database for Indian Power Sector	Ver.11	Others
21	ESPL	Site visit observation and photographs	Dated 31/01/2020	PP
22	CEA	CEA Notification No. 502/70/CEA/DP&D	Dated 17/03/2006	Others

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. Remaining FAR from validation and/or previous verifications

FAR ID	xx	Section no.	-	Date: DD/MM/YYYY
Description of FAR				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				

DOE assessment	Date: DD/MM/YYYY
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Table 2. CL from this verification

CL ID	01	Section no.	A	Date: 07/02/2020
Description of CL				
Section E.2 of MR: It is stated that the project activity generates electricity using wind power. Please reconfirm the source of power generation through project activity.				
Project participant response				Date : 21/02/2020
Typographical error is regretted. The same has been corrected in MR Version 02.				
Documentation provided by project participant				
MR Version 02				
DOE assessment				Date: 28/02/2020
The project activity generates electricity using solar power, typo error is rectified in section E.2 of the MR, found satisfactory, hence accepted. CL #1 is closed.				

Table 3. CAR from this verification

CAR ID	01	Section no.	E.6.2	Date: 07/02/2020
Description of CAR				
1. The value of $EG_{PJ,y}$ for September 2019 reported in the ER sheet is not consistent with the same as recorded in the JMR. 2. The value of grid emission factor and $EG_{PJ,y}$ as reported in the ER calculation sheet is inconsistent with the MR. 3. Please clarify why the line diagram indicating the metering points for project activity is not provided in the MR. (in Section C of MR)				
Project participant response				Date : 21/02/2020
1, The values has been revised as per JMR for the month of Sep 2019 2. The value of grid emission factor and $EG_{PJ,y}$ has been represented consistently in MR and ER Sheet. 3. The single line diagram of project site has been represented in MR Version 02.				
Documentation provided by project participant				
MR Version 02				
DOE assessment				Date: 28/02/2020
1. The value of $EG_{PJ,y}$ for September 2019 is corrected in the ER sheet and found consistent with the same as recorded in the JMR. 2. The value of grid emission factor and $EG_{PJ,y}$ is corrected in the ER calculation sheet and found consistent with the MR. 3. Single line diagram indicating the metering points for project activity is provided in the MR and found to be satisfactory				
CAR #1 is closed.				

CAR ID	02	Section no.	E.7	Date: 07/02/2020
Description of CAR				
Please clarify why the calibration details of all energy meters (ABT) used covering the current monitoring period are not provided in the MR. During the site visit, it is verified that existing energy meters were replaced with new ABT meters, please clarify why this information is not provided in MR together with the reason for replacement.				
Project participant response				Date : 21/02/2020
The calibration details of energy meters used during present monitoring period has been mentioned in MR Version 02. The energy meters were replaced during the current monitoring period and the same information has been presented in MR Version 02 the replacement of meter was done based upon the juridication of state electricity board and the same has been represented transparently.				
Documentation provided by project participant				

MR Version 02 New main and Check meter replacement certificate Old meter test report	
DOE assessment	Date: 28/02/2020
The PP has provided the calibration details of all energy meters (ABT) used covering the current monitoring period in the MR, found consistent with the calibration certificates. Old meters were replaced with new ABT meters by state utility as per the norms prevailing in the state. PP has reported the calibration details of both old and new meters along with the replacement details in the MR, found to be appropriate, hence accepted. CAR #2 is closed.	
CAR #2 is re-opened	Date: 05/04/2020
Description of CAR : Please provide further information about the reason for replacement of existing energy meters with new meters and also submit the relevant regulatory documents/reference.	
Project participant response	Date: 01/06/2020
As per the PPA Clause no. 14.12 "During the period of checking and calibration of both meters simultaneously, another export and import meter duly calibrated and supplied by Solar Photovoltaic Plant would be installed by UPCL. For this purpose, one spare set of meters of relevant standard as per 14.1 clause would be required to make available with the Solar Photovoltaic Power Plant at all times". Thus following the same practice as mentioned in PPA, the main and check meters were replaced with another set of meters which were in standby mode and were being used for billing purpose during the current monitoring period. The PPA extract justifying the above statement is being submitted to the Verification team.	
Documentation provided by project participant	
PPA Metering Regulations	
DOE assessment	Date: 31/07/2020
As per the practice followed at site, during the calibration existing meters are to be removed and new calibrated meters installed, these meters are available with PP all the time. During the current monitoring period, the same procedure is followed hence existing meters were replaced with new meters. This procedure is in accordance with clause 14.12, hence found to be satisfactory. CAR #2 is closed.	

CAR ID	03	Section no.	E.8.1	Date: 07/02/2020
Description of CAR				
1. Since the current monitoring period starts from 03/08/2017, hence please clarify why the specific period for August 2017 is not mentioned in the ER calculation sheet (Ref: Tab –Generation details, Cell B4). 2. ER sheet (Tab- Aug17): Please clarify why the generation period from 01/03/2017 to 01/04/2017 is mentioned under row 3. 3. Please clarify how it is appropriate to consider the daily generation data from 01/08/2017 to 31/08/2017 while apportioning of generation from 03/08/2017 to 01/09/2017. Also, submit the source document for daily generation data for August 2017. 4. The value of emission reductions achieved in the current monitoring period as reported in the MR is inconsistent with the ER calculation sheet.				
Project participant response				Date : 21/02/2020
1. Typographical error is regretted. The values has been revised as requested. 2. Typographical error is regretted. The values has been revised as requested. 3. Typographical error is regretted. The values have been revised as requested. Daily generation values have been considered for export and import from 01/08/2017 to 31/08/2017 for apportioning of power generation as per the current monitoring period. 4. Typographical error is regretted. The values has been revised as requested.				
Documentation provided by project participant				
MR Version 02 ER Sheet Version 02				
DOE assessment				Date: 28/02/2020

The PP has indicated specific period for August 2017 as the billing cycle is different for this particular month. The PP has rectified the typo error regarding the generation period in the ER sheet, found to be satisfactory. Start date of current monitoring period is 03/08/2017, however as per the JMR, billing cycle was from 01/08/2017 to 31/08/2017. Hence the PP has calculated the value of $EG_{P,J,y}$ for the period from 03/08/2017 to 31/08/2017 using standard apportioning method as reported in ER calculation sheet. The approach followed by the PP is found to be appropriate hence accepted.

The PP has corrected the value of emission reductions achieved in the current monitoring period in the MR and found consistent with the ER calculation sheet, hence accepted.

CAR #3 is closed.

Table 4. FAR from this verification

FAR ID	xx	Section No.		Date: DD/MM/YYYY
Description of FAR				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	31 May 2019	Revision to: • Ensure consistency with version 02.0 of the “CDM validation and verification standard for project activities” (CDM-EB93-A05-STAN); • Make structural and editorial improvements.
02.1	11 January 2018	Editorial revision to correct the numbering of appendices in the instructions.
02.0	31 October 2017	Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: project activities, verifying and certifying		