Verification and certification report form for CDM project activities

(Version 02.1)

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	20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan
Version number of the verification and certification report	~~03~~04
Completion date of the verification and certification report	~~25/12/2018~~ 12/02/2019
Monitoring period number and duration of this monitoring period	01st Monitoring, 30/03/2017 to 31/07/2018 (first and last day included)
Version number of the monitoring report to which this report applies	~~02~~03
Crediting period of the project activity corresponding to this monitoring period	Renewable crediting period of of 07 years, starting from 30/03/2017 (Retroactive crediting start date)
Project participants	Janardan Wind Energy Pvt. Ltd. (JWEPL)
Host Party	India
Applied methodologies and standardized baselines	ACM0002 "Grid-connected electricity generation from renewable sources" Version 17.0
Mandatory sectoral scopes linked to the applied methodologies	Sectoral scope: 1 Energy industries (renewable - / non-renewable sources)
Conditional sectoral scope(s) linked to the applied methodologies	NA
Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD	34,882 tCO_2e/year (46,732 tCO_2 for the Monitoring Period i.e., 489 days)
Certified amount of GHG emission reductions or GHG removals for this monitoring period	50,801 tCO_2e
Name and UNFCCC reference number of the DOE	EPIC Sustainability Services Private Limited (E-0062)
Name, position and signature of the approver of the verification and certification report	 K. Sudheendra, Director and Head Operations

SECTION A. Executive summary

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EPIC Sustainability Services Private Limited (EPIC) has been contracted by Infinite Solutions to undertake the first periodic independent verification of the GS project activity titled "20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan (GS ID 5575)". The objectives of this verification are to verify and certify emission reductions reported for project activity for the monitoring period of 30/03/2017 to 31/07/2018 (first and last day included); and to verify that the data reported are complete and transparent.

This report summarizes the findings of the verification of the project, performed on the basis of Gold Standard for the Global Goals (GS4GG)[1] (SDG 7: Affordable and Clean Energy, SDG 8: Decent Work and Economic Growth, SDG 13: Climate Action based on MR), UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to the Kyoto Protocol, the CDM rules and modalities as agreed in the Bonn Agreement, the Marrakech Accords and the CDM Executive Board's decisions.

The verification team has, based on the recommendations in the Validation and Verification Standard for Project Activities, version 1.0[2], GS4GG and employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generations of CERs. The verification is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design

The scope of the verification is the independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the project activity. The verification is based on the registered Project Design Document[3] (hereinafter called registered PDD) and its corresponding validation report[4]. These documents were reviewed against the requirements of GS4GG, Kyoto Protocol and CDM Modalities and Procedures and related rules and guidance.

The purpose of the project activity is to generate electricity using renewable energy source i.e., solar PV modules & sell the electricity generated to the Indian electricity grid. The project activity therefore displaces an equivalent amount of electricity which would have otherwise been generated by fossil fuel dominant electricity grid and there by reduces the associated CO_2 emissions.

The project activity involves installation of 10 MW_{AC} (Project-I) & 10 MW_{AC} (Project-II), totaling to 20 MW_{AC} (corresponding to 22.5 MWp) solar power project under Jawaharlal Nehru National Solar Mission (JNNSM) Phase-II, Batch-II (DCR1 Category). M/s Janardan Wind Energy Pvt. Ltd. (JWEPL) has installed a 20 MW solar power project at Sanwreej Village, Phalodi Teshil, Jodhpur Disrtict, Rajasthan, India to generate clean electricity with utilization of solar energy. The project activity aims to harness solar energy through installation of PV with total installed capacity of 20 MW_{ac} (corresponding to 22.5 MWp). The project activity replaces anthropogenic emissions of greenhouse gases (GHGs) in the atmosphere by displacing an equivalent amount of electricity generated through the operation of existing / proposed fossil fuel based power plants implemented by JWEPL.

The project activity thus utilizes renewable natural resources, namely solar energy in the region for electricity generation, thus reducing the consumption of depleting non-renewable natural resources and associated GHG emissions, thereby leading towards sustainable development.

The project is owned by M/s. JWEPL and commissioned as 10 MW_{AC} (Project-I) & 10 MW_{AC} (Project-II) on 30/03/2017 and 18/04/2017 respectively. The generated electricity is supplied to NTPC Vidyut Vyapar Nigam (NVVN) Ltd. under a Power Purchase Agreement (PPA). The verification team has reviewed the commissioning certificates[4] and Power Purchase Agreements (PPA)[5] for confirmation of the same. EPIC has, by means of a desk review and an on-site visit, assessed the physical features of the CDM project activity proposed in the registered PDD, and whether the project participants have operated the project activity as per the registered PDD. The technical details of the project equipment are:

Solar PV modules

Module Supplier	Module Model	Capacity (p)	Number	Total Capacity (MWp)
TATA Power Solar Systems Ltd.	TP 303 series	303	19520	5.91456
	TP 306series	306	9920	3.03552
	TP 312series	312	9600	2.9952
	TP 309series	309	19200	5.9328
	TP 312series	312	9760	3.0451

	TP 315series	315	9760	3.0741
			TOTAL CAPACITY	**22.4928**

Inverters

Sl No.	Make	10 MW (Project – I)	10 MW (Project – II)
1	Manufacturer	Sungrow Power	
2	Model	SG2500	SG2500
3	Rated Capacity	2500 kVA	2500 kVA
4	No. of Inverters	4	4
5	Rated Input Voltage(Max.Input Voltage)	1000V	1000V

Transformers

Sl No.	Make	10 MW (Project – I)	10 MW (Project – II)
1	Manufacturer	Danish Private Limited	Danish Private Limited
2	Model	Oil Cooled	Oil Cooled
3	Rated Capacity	2800KVA	2800KVA
4	No. of Transformers	4	4
5	Rated Input Voltage	33 KV/360V	33 KV/360V

Metering Equipment Details

Sl No.	Make	10 MW (Project – I)	10 MW (Project – II)
1	Manufacturer	Secure Make	Secure Make
2	Type	ABT meters	ABT meters
3	Accuracy Level	0.2S	0.2S
4	Total no of meter (Site and Substation)	4	4

The verification team, based on the site visit and document review, was able to conclude that the project activity has been commissioned and the implemented project activity physical features viz., make, model and its operation are as per the registered PDD. The start date of the current (first) monitoring period is 30/03/2017 which is line with the registered PDD.

The monitoring report for this monitoring period is in compliance with the monitoring plan of the registered PDD. The project activity was registered by applying the small scale methodology ACM0002, version 17.0[/6/] and the verification was carried out in accordance with the applied methodology. It was confirmed during the site visit that the project activity during the current periodic verification is in accordance with the applicability criteria of the methodology.

It is the responsibility of EPIC to express an independent GHG verification opinion on the GHG emissions reductions and on the calculation of GHG emission reductions from the project for this monitoring period based on the reported emission reduction in the monitoring Report.

EPIC's verification approach was based on the requirements as defined under the GS4GG, Kyoto Protocol, Marrakech accord, as well as those defined by the CDM Executive board. EPIC's approach was risk-based, drawing on an understanding of the risks associated with reported GHG emissions data and the controls in place to mitigate these. The examination includes assessment of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for this monitoring period.

The verification team has planned and performed the work to obtain the information and explanations that is considered necessary to provide sufficient evidence for it to give reasonable assurance that the amount of calculated GHG emission reductions for this monitoring period were fairly stated.

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/document review	On-site inspection	Interviews	Verification findings
1.	Team Leader	IR	D	Siddaramu	Central office, Bangalore	√	√	√	√
2.	Technical Expert	IR	R	Madhukar Gowda	Central office, Bangalore	√	√	√	√

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	Radhamadhavan	Vijayaraghavan	Central office, Bangalore
2.	Approver-Head Operations	IR	Krishnachar	Sudheendra	Central office, Bangalore

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.	No risk	Nil	Not applicable	Complete verification of all the values indicated in the emission reduction spread sheet in documents such as JMR/Invoices/Monthly bills[/7/] and calibration certificates[/8/].

C.2. Consideration of materiality in conducting the verification

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In line with Guidelines for Application of materiality in verifications[/9/], a reasonable level of assurance is defined for the verification of the project by complete verification of all the values indicated in the emission reduction spread sheet with source documents such as credit notes, invoices at the document review stage and during onsite visit. There are no material errors, omissions or misstatements.

SECTION D. Means of verification

D.1. Desk/document review

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The verification was performed primarily based on the review of the monitoring report, version 01[/10/] and the supporting documentation. This process included review of data and information presented to verify their completeness and review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment used including calibration requirements,

and the QA/QC procedures, and an evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of emission reduction.

The initial MR[/10/] version 1.0 submitted by the project participant and additional background documents related to the emission reductions are reviewed as an initial step of the verification process. The subsequent step involved the identification of corrective action requests and clarification requests (CAR and CR) which are presented in Appendix 4 of this report. As a result of these findings, the MR is revised to MR version 2.0[/11/]. A complete list of all documents and records reviewed is as attached in Appendix 03 of this report.

D.2. On-site inspection

Duration of on-site inspection: 28 - 29th September 2018				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	An on-site assessment was conducted as a part of verification activity and involved: 1) an assessment of the implementation and operation of the GS project activity as per the registered PDD 2) a review of information flows for generating, aggregating and reporting of the monitoring parameters 3) interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan 4) a cross-check between information provided in the MR and data from other sources 5) a check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the PDD and the applied methodology 6) a review of calculations and assumptions made in determining the GHG data and ERs, and 7) an identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters	Sanwreej Village, Phalodi Teshil, Jodhpur Disrtict, Rajasthan, India	28/09/2018 and 29/09/2018	Dr.R.Madhukar Gowda & Dr.D.Siddaramu

D.3. Interviews

No.	**Interviewee**			**Date**	**Subject**	**Team member**
	Last name	**First name**	**Affiliation**			
1.	Kumar	Mr.Ashwin	AGM, JWEPL	28/09/2018 to 29/09/2018	As above On the Project Implementation, Monitoring team, QA/QC procedure, etc.,	As above As above As above
2.	Singla	Mr. Sandeep	Sr.Manager, JWEPL			
3.	-	Mr.Manaram,	Site In-charge, JWEPL	29/09/2018		
4.	Prajapat	Mr.Lalit	O&M, JWEPL			
5.	Prakash	Mr. Om	Engineer, JWEPL			
6.	Bishnoi	Mr.Sunil	Technical Team, JWEPL			
7.	-	Mr. Dilleep				
8.	Paliwal	Mr.Narayan				
9.	Maurya	Mr. Dhananag				
10.	Singh	Mr. Ankit				
Stakeholders						

11.	-	Mr. Pancharam	Sanwreej village	29/09/2018	On the Project Implementation, LSC and their feedback on the project	
12.	Ram	Mr. Satana				
13.	Lal	Mr. Mohan				

D.4. Sampling approach

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No sampling is used, the project is located at single site and the verification team has visited the solar project site. The verification team has reviewed all the documents like commissioning certificates, PPA, invoices, JMRs/electricity share certificate etc.

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	00	00	00
Compliance of the project implementation and operation with the registered PDD	CL01	00	00
Post-registration changes	00	00	00
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines	00	00	00
Compliance of monitoring activities with the registered monitoring plan	00	00	00
Compliance with the calibration frequency requirements for measuring instruments	00	00	00
Assessment of data and calculation of emission reductions or net removals	00	00	00
Assessment of reported sustainable development co-benefits	00	00	00
Global stakeholder consultation	00	00	00
Others (please specify)	00	00	00
Sustainable development indicators	CL02, CL03 and CL04	00	00
Jobs opportunities		00	00
Waste disposal	CL05	00	00
Training /Employment	CL06	00	00
Stakeholder Consultation	CL07	00	00
Document submission	CL08	CAR01	00
Total	**08**	**01**	**00**

SECTION E. Verification findings

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

Means of verification	The verification team has determined whether the monitoring report was completed using the valid version of the applicable Monitoring Report Form, (i.e., Gold standard for the global goals - Monitoring report, version 01, June 2017). The verification team has checked whether all the sections of the monitoring report follows the guidelines provided in the template.
Findings	No CAR/CLs are raised in this section.
Conclusion	The verification team concludes that the monitoring report[11] is completed using the valid version 01, June 2017 of the applicable monitoring report form and has followed the guidelines contained in the FORM.

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

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This is the first verification of the project activity, the verification team has reviewed the validation report and observed that there is no open issue i.e., no FARs were found that required action. And during this verification process, EPIC has not raised any forward Action Request (FAR).

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

Means of verification	The verification team determined the conformity of the actual implemented project activity and its operation with the registered PDD. EPIC has, by means of a desk review and an on-site visit, assessed whether all physical features of the proposed CDM project activity proposed in the registered PDD are in place, and that the project participants have operated the GS project activity as per the registered PDD[/2/].
Findings	CL01 was raised in this section.
Conclusion	The verification team has reviewed the commissioning certificates[/12/], Power Purchase Agreements (PPA)[/5/], electricity generation records. The implemented project activity's physical features viz., MW capacity, make, model and its operation, connected sub-station, monitoring and metering equipment, location, Grid connectivity are as per the registered PDD[/2/], thus comply with requirement of para 381 of VVS version 01.0 (EB 93, Annex 5).

Project capacity	Technology Used	Location	Date of commissioning	Grid Connectivity
20 MW	Solar PV panels (TATA Power Solar Systems Ltd.) of 303, 306, 309, 312 and 315 capacity	Sanwreej Village, Phalodi Teshil, Jodhpur Disrtict, Rajasthan, India	Project I (10 MWAC) on 30/03/2017 and Project II (10 MWAC) on 18/04/2017	Indian grid

The project is fully commissioned and operational since Project I-30/03/2017/ Project II-18/04/2017. The verification team analysed the actual power generation during the subject monitoring period in comparison with the estimate in the registered PDD. The annual electricity generation stated in the registered PDD was referred from the estimates provided by the third party PLF study (i.e., 20.532%). For the current monitoring period, there is an increase in emission reductions by 8.71% in comparison to the registered PDD estimate. Because, PP is claiming emission reduction for 489 days (i.e., from 30/03/2017 to 31/07/2018). As per the registered PDD 34,~~822~~ 882 tCO_{2e} are the estimated emission reduction for a period of 365 days. But, the actual achieved during the 1st monitoring period is 50,801 tCO_{2e}

Log book on break down maintenance and fault details are maintained by the O&M service providers in the control rooms at the project site. It was confirmed through the document review and during the site visit that the PP had operated the proposed CDM project activity as per the registered PDD during the current monitoring period. During the verification, EPIC did not find any other significant changes to the project activity compared with the registered PDD.

E.4. Post-registration changes

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

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There are no temporary deviations observed for this monitoring period.

E.4.2. Corrections

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There are corrections to project information fixed at validation during the current monitoring period.
During project conception phase, the total number of Solar PV Modules planned to achieve 20 MW_{AC} capacity was 72,960. However, actually there are 77,760 number Solar PV Modules installed and commissioned to achieve 20 MW_{AC}. The corrections are now included in section B.1-"Description of implemented project" of the MR

E.4.3. Change to the start date of the crediting period of the project activity

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No changes in the start date of the crediting period of the project activity. It is 30/03/2017.

E.4.4. Inclusion of a monitoring plan

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Not applicable, as monitoring plan was part of the PDD at the time of registration.

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

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There are no permanent changes observed from registered monitoring plan, monitoring methodology or standardized baseline, for this monitoring period.

E.4.6. Changes to the project design

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There is no such change observed for this monitoring period.

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

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Not applicable as the project does not involve afforestation and reforestation activity.

E.5. Compliance of the registered monitoring plan with the methodology including applicable tools and standardized baselines

Means of verification	The verification team determined whether the registered monitoring plan is in accordance with the applied methodology[/6/] (ACM0002, version 17.0) including applicable tools.
Findings	There is no CAR/CL raised in this section.
Conclusion	The verification team was able to confirm that the monitoring plan contained in the registered PDD is in accordance with the approved methodology applied by the project activity, i.e., ACM0002, version 17.0 and its applicable tools.

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

Means of verification	The verification team has determined whether the monitoring plan in the registered PDD[/2/] has been properly implemented and followed by the PP, and that the monitoring has been carried out in accordance with the registered monitoring plan; and determined whether all parameters including project emission parameters, baseline emission parameters and leakage parameters used for emission reduction calculation stated in the registered monitoring plan are monitored or used appropriately as per the registered PDD.
Findings	No CAR/CL raised in this section.
Conclusion	The baseline emissions as discussed in section B.6.1 of the PDD will include emissions that would have occurred in the absence of the project activity. The emission reduction calculation has been done as per the LSC methodology ACM0002 version 17. Baseline Emission (BE_y): $BE_y = EG_{facility,y} * EF_{grid,\ CM,y}$ ---------- (1) Where BE_y = Baseline Emissions in year y; (tCO_2) $EG_{facility,y}$ = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh) $EF_{grid,CM,y}$ = Grid emission factor (MWh/tCO_2) PP has estimated the baseline energy generation considering the capacity of the project activity, yearly generation hour and plant load factor.

	Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors according to the procedure prescribed in the "Tool to calculate the emission factor for an electricity system" version 6.0 which is sourced from CEA, Govt. of India and forms the part of emission reduction calculation. The baseline emission factor calculation is checked by the validation team and found that the calculation is transparent and conservative. For estimating the operating margin emission factor, PP calculated ex-ante Simple Operating Margin (OM). As per the "Tool to calculate the emission factor for an electricity system" version 6.0"": for grid power plants, use a 3-year generation-weighted average, based on the most recent data available at the time of submission of the CDM-PDD to the DOE for validation. Hence, PP considered the weighted average of latest net electricity generation and import of electricity and associated emission from CEA. The value of operating margin considered as 0.9941tCO_2 /MWh and the value of build margin as 0.9285tCO_2 /MWh (based on the latest one year data). The weighting for both operating margin is taken as 0.75 and build margin as 0.25 for wind/solar power generation projects. Validation team checked the estimation procedure and considered data and found transparent and conservative. Emission factor of the project considered is mentioned below: $EF_{grid,y}$ = 0. 9777 tCO_{2e}/MWh and it are fixed ex-ante for the crediting period. Combined margin emission factor value being considered is confirmed correct.

E.6.2. Data and parameters monitored

Means of verification	The verification team has determined whether the monitoring plan in the registered PDD[/2/] has been properly implemented and followed by the PP that the monitoring has been carried out in accordance with the registered monitoring plan; and determined whether all parameters including project emission parameters, baseline emission parameters and leakage parameters used for emission reduction calculation stated in the registered monitoring plan are monitored or used appropriately as per the registered PDD.
Findings	No CAR/CL is raised in this section.
Conclusion	According to the monitoring plan of the registered PDD, there is only one parameter to be monitored i.e., Net electricity supplied to the grid (calculated from electricity exported and imported) to the Indian grid by the project activity. As per the registered PDD, the Monthly joint meter reading reports provided by State electricity grid operators are the source of the monthly values of electricity exported and imported by the project activity. The net is then calculated from export and import. PP is using the same source for emission reductions calculations. As per the applied methodology ACM0002 version 17.0 "Monitoring shall consist of metering the net electricity supplied by the project activity to the grid. Measurement results shall be cross-checked with records for sold electricity/electricity invoices". Moreover, the meters are located at the HT side of the transformer and are of accuracy class of 0.2S. Electricity export to the grid and import from the grid is metered by main and check tri-vector energy meters. The main meter reading is taken jointly on a fixed day of every month for the preceding month at the delivery point and signed by the representatives of state utility and O&M personnel. In the event of failure of main meter, the check meter will be used in monitoring the electricity data. The agency is experienced in the monitoring system and is managing O&M of numerous other solar farm projects. The validation team therefore is of the opinion that the project participant through the O&M agency is capable of implementing the monitoring plan in the context of the project activity. Calibration of all the meters is done by state electricity board officials as per the industry standards i.e., Once in 5years. The energy meter recording the export and import from the grid at substation is under the control and supervision of state

electricity board officials. Similarly O&M contractor is responsible for monitoring of the generation data at CMS.

The verification team confirmed from the interview of O&M and Gujarat Urja Vikas Nigam Limited (GUVNL) officials that monthly readings are being taken in accordance with the PPA[/5/] requirement. The JMR[/7/] are raised by PP, to the GUVNL are used for cross-checking purpose. Further, it is also verified that according to PPA, the net electricity monitored at the energy meters is used for the financial transaction.

Meter details:

Energy Meter Serial No Details			Type
132 KV GSS Billing Meter (Project-I)	Main Meter (Plant End)	RJB90188	SECURE make energy meter with 0.2 accuracy class
	Check Meter (Plant End)	RJB90189	
	Main Meter (GSS End)	RJB90190	
	Check Meter (GSS End)	RJB90191	
132 KV GSS Billing Meter (Project-I)	Main Meter (Plant End)	RJB90193	
	Check Meter (Plant End)	RJB90194	
	Main Meter (GSS End)	RJB90195	
	Check Meter (GSS End)	RJB90196	

The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD. EG_y stated in the registered monitoring plan are monitored and reported appropriately. The monitoring report[/11/] lists the parameter required by the monitoring plan and the information flow (i.e., from data generation, aggregation, to recording, calculation and reporting) for these parameters is provided in the monitoring report[/11/].

The O&M team at the project site is trained by providing in-house training and on-job training by working at the site. A structured training programme is implemented for training to develop the competence of O&M personnel. Qualification and training needs were confirmed during the site visit and discussion with the O&M suppliers.

The team also confirmed that the monitoring report clearly describes the responsibilities for monitoring Responsibilities and authorities for monitoring and reporting in the MR are in accordance with those stated in the registered PDD.

During site visit, the shift in-charge and O&M were interviewed and the roles and responsibilities as briefed in section C of the MR were confirmed. The verification team confirmed that that neither a revision nor a deviation to the monitoring plan has been requested to the Executive Board.

QA/QC procedures

QA/QC procedures are described in the MR and consistently applied in accordance with the monitoring plan.

The registered PDD describes that the monitored data is to be measured continuously and recorded monthly. The monitored data is archived and is maintained for the entire crediting period plus 2 years both electronically and in paper mode.

The MR[/11/] describes the monitoring system, monitoring procedures, data collection and reporting, responsibilities of relevant staff/departments, emergency procedures, calibrations that were implemented and QA/QC procedures.

The verification team confirmed the data collection mechanism is as described in

	the Monitoring Plan of the registered PDD. It was confirmed that the QA/QC procedures implemented at the site are consistent with the registered PDD.

E.6.3. Implementation of sampling plan

Means of verification	No sampling is used, the project is located at single site and the verification team has visited the project site. No sampling plan is defined in the registered PDD and monitoring plan. All the data and information has been checked during verification assessment, thus no sampling plan has been applied in the Project.
Findings	Not Applicable
Conclusion	Not Applicable

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

Means of verification	The verification team determined whether the calibration of the measuring equipment that has an impact on the claimed emission reductions is conducted by the PP at a frequency specified in the registered monitoring plan.
Findings	No CAR/CLs are raised in this section.
Conclusion	The monitoring plan requires measurement of Net electricity supplied to grid by the project activity during period, y. The monitoring plan in the registered PDD mentions calibration frequency of the electricity meters as once in a year. The electricity generation data is recorded continuously and the JMR[7] is generated on a monthly basis. The metering arrangement is SECURE make bi-directional energy meters (main and check) located at the switch yard, at the project site itself. These meters record several parameters that are essential for normal operations, including the electricity exported & imported. These electricity meters are being used by PP for JMR[7]. The verification team has verified the calibration certificates[8], main meter and check meters were calibrated on 19/05/2018.

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 assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered CDM project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan.
Findings	There is no CAR/CL raised in this section.
Conclusion	The baseline emissions as discussed in section B.6.1 of the PDD will include emissions that would have occurred in the absence of the project activity. The emission reduction calculation has been done as per the LSC methodology ACM0002 version 17. Baseline Emission (BE_y): $BE_y = EG_{facility,y} * EF_{grid,\ CM,y}$ ---------- (1) Where BE_y = Baseline Emissions in year y; (tCO_2) $EG_{facility,y}$ = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh) $EF_{grid,CM,y}$ = Grid emission factor (MWh/tCO_2) PP has estimated the baseline energy generation considering the capacity of the project activity, yearly generation hour and plant load factor. Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors according to the procedure prescribed in the "Tool to calculate the emission factor for an

	electricity system" version 6.0 which is sourced from CEA, Govt. of India and forms the part of emission reduction calculation. The baseline emission factor calculation is checked by the validation team and found that the calculation is transparent and conservative. For estimating the operating margin emission factor, PP calculated ex-ante Simple Operating Margin (OM). As per the "Tool to calculate the emission factor for an electricity system" version 6.0"": for grid power plants, use a 3-year generation-weighted average, based on the most recent data available at the time of submission of the CDM-PDD to the DOE for validation. Hence, PP considered the weighted average of latest net electricity generation and import of electricity and associated emission from CEA. The value of operating margin considered as 0.9941tCO_2 /MWh and the value of build margin as 0.9285tCO_2 /MWh (based on the latest one year data). The weighting for both operating margin is taken as 0.75 and build margin as 0.25 for wind/solar power generation projects. Validation team checked the estimation procedure and considered data and found transparent and conservative. Emission factor of the project considered is mentioned below: $EF_{grid,y}$ = 0. 9777 tCO_{2e}/MWh and it are fixed ex-ante for the crediting period. BE_y = 51,960*0.9777 t CO_2/ year PE_y = 0 Therefore, $ER_y = BE_y$ = 51,960*0.9777 t CO_2/ year = 50,801 t CO_2/ year. The verification team has checked all the monthly JMR[/7/] applicable for the monitoring period and found the parameter are monitored and recorded as per the monitoring plan in line with the registered PDD. The verification team has crosschecked the CER sheet[/13/] and monitoring report data with the JMR[/7/] and found all the values are matching.

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

Means of verification	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered CDM project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan.
Findings	There is no CAR/CL raised in this section.
Conclusion	The project emissions are regarded as zero according to the applied methodology and the registered PDD i.e., PE_y = 0

E.8.3. Calculation of leakage GHG emissions

Means of verification	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered CDM project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan.
Findings	There is no CAR/CL raised in this section.
Conclusion	The leakage emissions are regarded as zero according to the applied methodology and the registered PDD.

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

Means of verification	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered GS project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in

	accordance with the formulae and methods described in the registered monitoring plan.
Findings	There is no CAR/CL raised in this section.
Conclusion	Emission reductions in this monitoring period are: $ER_y = BE_y - PE_y - L_y$ $ER_y = 51,960*0.9777$ t $CO_2 = 50,801$ 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	The verification team has determined the CER achieved during this monitoring period with the estimated value and reason for increase if any.
Findings	There is no CAR/CL raised in this section
Conclusion	The verification team analyzed the actual power generation during the subject monitoring period in comparison with the estimate in the registered PDD. The annual electricity generation stated in the registered PDD was referred from the estimates provided by the third party PLF study (i.e., 20.532%) For the current monitoring period, there is an increase in emission reductions by 8.71% in comparison to the registered PDD estimate. Because, PP is claiming emission reduction for 489 days (i.e., from 30/03/2017 to 31/07/2018). As per the registered PDD 34,~~822~~ 882 tCO_{2e} are the estimated emission reduction for a period of 365 days. But, the actual achieved during the 1st monitoring period is 50,801 tCO_{2e}

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

Means of verification	The verification team has determined the CER achieved during this monitoring period with the estimated value and reason for decrease if any.
Findings	There is no CAR/CL raised in this section
Conclusion	The verification team analyzed the actual power generation during the subject monitoring period in comparison with the estimate in the registered PDD. The annual electricity generation stated in the registered PDD was referred from the estimates provided by the third party PLF study (i.e., 20.532%). For the current monitoring period, there is an increase in emission reductions by 8.71% in comparison to the registered PDD estimate. Because, PP is claiming emission reduction for 489 days (i.e., from 30/03/2017 to 31/07/2018). As per the registered PDD 34,~~822~~ 882 tCO_{2e} are the estimated emission reduction for a period of 365 days. But, the actual achieved during the 1st monitoring period is 50,801 tCO_{2e}

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	The verification team has determined the CER achieved during the first commitment period
Findings	There is no CAR/CL raised in this section
Conclusion	CER achieved in 2017 = 26,472 tCO_{2e} CER achieved in 2018 = 24,329 tCO_{2e}. Total amount achieved during the 1st monitoring period = 50,801 tCO_{2e}

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

Means of verification	Since it is a Gold Standard project, sustainable development co-benefits are assessed by as per Gold Standard sustainable indicators
Findings	CL02, CL03, CL04 and CL06 were raised in this section.
Conclusion	The verification team with discussion with PP and document review, confirms that Sustainable development co-benefits are reported in PoA-DD/MR. Further, it is also confirmed that PP will monitor the sustainable development co-benefits and It was explained that since Janardan Wind Energy Pvt. Ltd. is the project investor. The performance of the project with respect to sustainability indices and how the project contributes to the sustainability development is undertaken and verification of conformance of indices to the Gold standard requirements is detailed below.

Sl No.	SDG Indicator Monitored by PP in this Monitoring period	Verification Team Justification
1	SDG 7 : Affordable and Clean Energy - Quantity of net electricity supplied to the grid during the year y.	51, 960 MWh Calculated (based on the measured values of electricity exported and imported) The electricity exported & imported is measured by Energy meter installed at substation. Two sets of energy meters (main & check) are installed at sub-station. The export and import is measured using Main & Check meters installed at Sub-station. Authorized officer of NVVN in the presence of representative of PP will measure Export & Import readings of Main & Check meters on monthly basis. The meter reading is taken jointly and signed by the representatives of the NVVN and PP. Based on the readings, invoices/ monthly bills are raised by PP. These invoices and monthly bills are used for cross checking the meter readings taken for the respective project activity. The Project representatives are available during meter reading, the calculations of net electricity supplied to grid is completely under purview of (SEB/Discom officer) NTPC Vidyut Vyapar Nigam Ltd. In addition, accuracy class of meters and calibration frequency is under purview of SEB/Discom officer and Project owner do not have any control on it. PP gets the monthly credit report from where net electricity supplied to grid is obtained and used for emission reduction calculations. The verification team, visited the sub-station, checked the meters and share certificates. The applied value is correct
2	SDG 8: Decent Work and Economic Growth - Quantitative employment and income generation	Number of staffs involved in the project. The verification team, during the site visit by discussion with the PP/field staff and checking the employees records/register kept at site office confirms that 1. Total employees are 34. Out of which 6 are non-local and rest are local. 6 are permanent and 28 are on contract basis and 2. 04 training for the emplyoees/staff were provided incurring a expenditure of INR ~~11,188,333~~7,200,000 ~~is provided to the employees from start of the project till the end of~~ during this monitoring period.
3	SDG 8: Decent Work and Economic - Quality of employment Growth	Number of Trainings provided to project employees. PP had provided 04 Trainings to the

			employees in this monitoring period **Name of Trainings** / **Date of Training** Operation and maintenance of Inverter — 10/08/2017 Operation and maintenance of Transformer — 15/12/2017 Operation and maintenance of HT Panel — 05/03/2018 How to use the equipment of safety purpose like Fire Extinguisher, Fire Bucket, Safety Belt etc. — 20/07/2018 The verification team, during the site visit by discussion with the PP/field staff and checking the training records kept at site office confirms that 04 Trainings were conducted in this monitoring period.
	4	SDG 13: Climate Action - Air quality	Electricity generated from this project (i.e., Solar power plant) has substituted electricity generation from fossil fuel fired power plants that represent a large share of the Indian Power grid generation mix. Thus, besides greenhouse gases, all other air pollutants (e.g. SOx, NOx), particle and VOC emissions are avoided by the project activity. The verification team, therefore confirms that this project has a positive impact on air quality in the region. Net electricity generation serves as evidence of positive impact of the project activity on this indicator and is being monitored.
	This shows the positive impact of the project activity towards sustainability development, hence accepted by the verification team.		

E.10. Global stakeholder consultation

Means of verification	Not applicable
Findings	Not applicable
Conclusion	Not applicable

SECTION F. Internal quality control

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After the completion of assessment by the verification team all the relevant documentation is submitted to a qualified, Independent Technical reviewer as part of EPIC's internal quality control system. A Technical reviewer team is appointed to review the draft final verification report (Draft FVeR). The comments made by the Technical reviewer team are taken into consideration and incorporated in the final FVeR. The technical reviewer team assesses whether all the reporting requirements have been fulfilled and whether all the issues raised were closed satisfactorily by the verification team with justification. The technical review process can also raise issues in this regard which is resolved further by the verification team to the satisfaction of the technical reviewer. The technical reviewer team either accepts or rejects the report made by the verification team. The final report (after resolutions of all findings) is then submitted to the Head-operations for review and approval.

SECTION G. Verification opinion

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EPIC Sustainability Services Private Limited (EPIC) has been contracted by M/s. Infinite Solutions to undertake the first periodic independent verification of the registered GS project activity titled "20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan" (GS ID: 5575). The objectives of this verification are to verify and certify emission reductions reported for project activity for the monitoring period of 30/03/2017 to 31/07/2018 (first and last day included); and to verify that the data reported are complete and transparent.

The verification team determines the conformity of the actual project activity and its operation with the registered project design document. EPIC has, by means of a desk review and an on-site visit, assessed whether the physical features of the proposed GS project activity proposed in the registered PDD/02/ are in place, and that the project participants have operated the GS project activity as per the registered PDD/02/.

The verification team, based on the site visit and document review, was able to conclude that the project activity has been commissioned. The start date of the monitoring period is 30/03/2017 which is in line with the registered PDD.

The monitoring report for this monitoring period is in compliance with the monitoring plan of the registered PDD/2/. The verification team was is able to confirm that the monitoring plan contained in the registered PDD/2/ is in accordance with the approved methodology applied by the project activity, i.e., ACM0002, version 17.0 and its applicable tools. It was confirmed during the site visit that the project activity during the current periodic verification is in accordance with the applicability criteria of the methodology.

The management of project participants is responsible for the preparation and reporting of GHG emissions data, and the reported GHG emission reduction on the basis set out within the project monitoring plan. The development and maintenance of records and reporting procedures in accordance with the monitoring plan, including the calculation and determination of GHG emission reduction from the project is the responsibility of the management of the project. It is the responsibility of EPIC to express an independent GHG verification opinion on the GHG emissions reductions and on the calculation of GHG emission reductions from the project for this monitoring period based on the reported emission reduction in the monitoring Report.

EPIC's verification approach was based on the requirements as defined under GS4GG, Kyoto Protocol, Marrakech accord, as well as those defined by the CDM Executive board. EPIC's approach was risk-based, drawing on an understanding of the risks associated with reported GHG emissions data and the controls in place to mitigate these. The examination includes assessment of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for this monitoring period.

The verification team has planned and performed the work to obtain the information and explanations that is considered necessary to provide sufficient evidence for it to give reasonable assurance that the amount of calculated GHG emission reductions for this monitoring period were fairly stated.

The verification team has verified that the information included in the revised monitoring report is correct and that the emission reduction achieved has been determined correctly. Based on the information seen and evaluated, the verification team confirms the following:

Project title:	20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan
GS ID:	5575
Crediting period:	Renewable crediting period of 07 years, starting from 30/03/2017 (Retroactive crediting start date)
PDD/02/ Monitoring report/07/	Version 03, dated 11/07/2017 Version ~~02~~03, dated ~~10/12/2018~~ 09/02/2019
Methodology used for verification:	ACM0002, Version 17.0
Applicable monitoring period:	01st Monitoring, 30/03/2017 to 31/07/2018 (first and last day included)
Emissions reductions verified:	50,801 tCO_{2e}

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SECTION H. Certification statement

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EPIC Sustainability Services Private Limited (EPIC has carried out the first verification of the emission reductions that have been reported for the GS project activity “20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan” in India for the period 30/03/2017 to 31/07/2018.

The project participants are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

EPIC takes responsibility for issuance of an independent verification statement on the reported GHG emission reductions from the project activity.

The verification was done on the basis of the baseline and monitoring methodology ACM0002, Version 17.0, the validated PDD[3] dated 11/07/2017 and the monitoring report, version 02[11] dated 10/12/2018. The verification included checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied and the collection of evidence supporting the reported data.

The emission reductions are calculated correctly and EPIC could certify that the emission reductions from the CDM project activity “20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan” by Janardan Wind Energy Pvt. Ltd. (JWEPL) in Rajasthan, India during the period 30/03/2017 to 31/07/2018 is 50,801 tonnes of CO_2 equivalent.

Appendix 1. Abbreviations

Abbreviations	Full texts
AC	Alternate Current
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CEF	Carbon Emission Factor
CER	Certified Emission Reduction(s)
CL	Clarification request
CO_2	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
DNA	Designated National Authority
EF	Emission Factor
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GSS	Grid Sub Station
JNNSM	Jawaharlal Nehru National Solar Mission
JWEPL	Janardan Wind Energy Pvt. Ltd.
JMR	Joint Meter Readings
kV	Kilo Volt
kW	Kilo Watt
MP	Monitoring Plan
MR	Monitoring Report
MW	Mega Watt
NVVN	NTPC Vidyut Vyapar Nigam
O&M	Operation and Maintenance
PDD	Project Design Document
PPA	Power Purchase Agreement
PS	Project Standard
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers

The following validation team has been assigned to carry out the verification of the project.

Name	Dr.D.Siddaramu	Dr.R.Madhukar	Mr. R. Vijayaraghavan
Role	Team Lead Auditor	Technical Expert	Technical Reviewer
Competence in relevant sectors	Sector 1	Sector 1	Sector 1
Responsibility	Doc review, onsite, DVeR preparation, DVeR resolution and FVeR preparation	Onsite visit Technical inputs	Technical review

Dr. R. Madhukar, holds a Doctoral in Environmental Science. He has more than 9 years of experience in different industries, consultancy and research and development in Environmental Impact Assessment. He has three years' experience and has participated in the validation / verification of various CDM/VCS/GS/GHG globally. He has undergone extensive training on CDM validation and verification and has been qualified as Auditor for Sectoral Scope 1 under Technical Area "1.2-Renewables". He is also an ISO 26000 lead auditor

certified by Professional Evaluation and Certification Board (PECB). He has successfully completed the e-course on Carbon Monitoring in CDM Afforestation and Reforestation projects conducted by World Bank Institute. He has undergone extensive training on forestry audit requirements for various regimes including CDM, VCS, CCBA, Plan Vivo on several occasions. He has participated as part of the technical review team in various forestry projects across various regimes and has undergone training in methodologies and processes related to forestry auditing. He has on-site audit experience in forestry projects under VCS, CCB and Plan Vivo regimes.

Dr. D. Siddaramu, is a M.Sc., Ph.D in Environmental Science, with over 15 years of experience. A qualified Clean Development Mechanism (CDM) Lead Auditor, successfully registered more than 30 projects with United Nations Framework Convention on Climate Change (UNFCCC) and Verified Carbon Standard registry (VCS) registry; well versed with both National and International legal regime. Has hands on experience in Environmental Impact Assessment (EIA) studies pertaining to different Ecosystem; monitoring, collection & analyzing environmental samples and conducting socio-economic surveys; data analysis. He has undergone extensive training on CDM validation and verification and is a qualified auditor in accordance with procedures of EPIC sustainability services Pvt. Ltd.

Mr. R. Vijayaraghavan holds BE in Mechanical Engineering, M.Tech in Energy Conservation and Management and MBA in Technology Management. He is certified as Energy Auditor by Bureau of Energy Efficiency (BEE), Government of India. He has 12 years of working experience in energy sector including validation / verification of 150 CDM and VCS/GS projects and has undergone extensive training on CDM validation and verification and has been qualified as Lead Auditor with Sectoral Scope 1 and 13.

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	GS	GS4GG requirements standard documents	https://www.goldstandard.org/project-developers/standard-documents	GS
2	UNFCCC	Validation and Verification Standard	http://cdm.unfccc.int	UNFCCC
3	PP	Registered Project Design Document	http://cdm.unfccc.int/Projects/DB/RWTUV1323884923.93/view	PP
4	LGAI Technological Center, S.A.	Validation report		3rd Party
5	PPA	Power Purchase Agreements		3rd Party
6	UNFCCC	ACM0002, version 17.0	http://cdm.unfccc.int	UNFCCC
7	NVVN	JMR/Invoices/ monthly bills		3rd Party
8	PP	Calibration Certificates		PP
9	UNFCCC	Guidelines for Application of materiality in verifications	http://cdm.unfccc.int	UNFCCC
10	PP	Initial MR version 1.0		PP
11	PP	Final MR version3.0		PP
12	PP	Commissioning Certificates		PP
13	PP	CER calculations sheet		PP
14	PP	Employee Training records		PP
15	PP	Salary slips		PP
16	PP	Grievance mechanism records		PP
17	PP	Commissioning certificate		PP
18	PP	Employees records		PP
19	PP	O & M Agreement		PP

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

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

FAR ID	NA	**Section no.**	Document Review	**Date:** 10/10/2018
Description of FAR				
NIL				
Project participant response				**Date:** DD/MM/YYYY
NIL				
Documentation provided by project participant				
NIL				
DOE assessment				**Date:** DD/MM/YYYY

Table 2. CL from this verification

CL ID	01	**Section no.**	B.1 of GS passport version 04	**Date:** 10/10/2018
Description of CL				
As per section B.1, the number of solar PV Modules are indicated as 72,960, whereas from discussion with site personnel it is 77,160. Clarify				
Project participant response				**Date:** 05/12/2018
During project conception phase, the total 72,960 No. of Module was planned to achieve 20 MW AC capacity. However, actually 77,760 No. of Module have been commissioned to achieve 20 MW AC. Same can be cross-checked from the installation report and connectivity report in the name of project owner "Janardan Wind Energy Pvt. Ltd.", submitted along with this submission.				
Documentation provided by project participant				
Revised MR Commissioning Certificates				
DOE assessment				**Date:** 20/12/2018
The clarification by PP is accepted. The verification team during the site visit checked that the capacity is not changed due to the addition of solar PV modules and more over the same make modules are installed. The additionality and/or capacity is not changed, hence CL01 is closed.				

CL ID	02	**Section no.**	F.2 of GS passport version 04	**Date:** 10/10/2018
Description of CL				
The sustainable development indicators scored (-, 0 or +) indicated in section F.2 - Sustainable Development matrix, shall be justified with the help of reference document in SD Matrix and submit the reference document/s for all the sustainable development indicators				
Project participant response				**Date:** 10/12/2018

The parameters which have an impact (both positive and negative) have been included as the monitoring parameter in line with the GS version 2.2 requirements. Further during the transition the parameters were revised in line with GS4GG requirements. Request you to kindly refer the same. The MR has been prepared as per the approved transition report. Further the monitoring parameters and its supporting documents have been submitted to the DOE.
Documentation provided by project participant
1. Revised MR 2. Approved Transition Report 3. JMR & Invoices 4. Training Records 5. Employees record 6. O & M Agreement
DOE assessment **Date:** 20/12/2018
The verification team checked SD Matrix and reference document/s submitted for all the sustainable development indicators (i.e., salary slip, training records and employment records) and found ok. Hence CL02 is closed

CL ID	03	**Section no.**	Document review	**Date:** 10/10/2018
Description of CL				
PP shall provide the details on the number of jobs/opportunities created from the project				
Project participant response				**Date:** 10/12/2018
The total number of employment provided from the project activity is 34 and the employment record has been submitted to the DOE.				
Documentation provided by project participant				
Employment Record				
DOE assessment				**Date:** 20/12/2018
The verification team reviewed the employment records submitted and found that a total of 34 employments are provided from the project activity. Hence CL03 is closed.				

CL ID	04	**Section no.**	G of GS passport version 04	**Date:** 10/10/2018
Description of CL				
The PP is requested to provide more information on how the project activity has resulted in the improvement of livelihood of people in terms of various parameters discussed under Section G - Sustainability Monitoring Plan				
Project participant response				**Date:** 10/12/2018
The SDG 8.5 will be monitored in each monitoring period for the livelihood of poor i.e. the Quality of employment, Quantitative employment and income generation. The monitoring parameters have been included in the MR. Further the relevant documents such as salary slip, training records and employment record have already been submitted to the assessment team.				
Documentation provided by project participant				

*S*alary slip, Training records and Employment record
DOE assessment **Date:** 20/12/2018
The justification by PP on how the project activity has resulted in the improvement of livelihood of people is acceptable. The verification team checked the salary slip, training records and employment records submitted and found ok. Hence CL04 is closed

CL ID	05	**Section no.**	Document review	**Date:** 10/10/2018
Description of CL				
Clarify on the procedure adapted for disposal of waste and/or scraps generated from the project.				
Project participant response				**Date:** 10/12/2018
The wastes of the project during operational phase were handled in line with hazardous waste management rules and are disposed of accordingly by the operation and management. Thus the issue has been closed by mitigating the problem raised at validation time.				
Documentation provided by project participant				
NA				
DOE assessment				**Date:** 20/12/2018
The clarification by PP on wastes generation and disposal is found ok. As there is no waste generated during this monitoring period and the same has also been described under registered GS Passport is acceptable and ok. Hence CL05 is closed.				

CL ID	06	**Section no.**	E.3 to E.6	**Date:** 10/10/2018
Description of CL				
Clarify on the training provided and submit the evidence for Trainings expenditure of INR 21,00,000 as indicated under SDG 8: Decent Work and Economic Growth under section E.2, E.3, E.4, E.5 and E.6.				
Project participant response				**Date:** 10/12/2018
The records of the trainings conducted during this monitoring period have already been submitted to the assessment team. As the trainings are accounted as **numbers of trainings** therefore the expenditure for the same cannot be counted. Further INR 11,188,333 is the expenditure done by the PP for the operation and maintenance during the monitoring period which is on the data based on signed O&M. The sections E.2, E.3, E.4, E.5 and E.6 are now corrected and revised as per the requirement of the template.				
Documentation provided by project participant				
Revised MR *Training Records* *O & M Agreement.* *Revised ER sheet with O&M calculation for the MP*				
DOE assessment				**Date:** 20/12/2018
The clarification by PP on the expenditure is acceptable. The training records and income provided to the employees for the monitoring period is checked and found ok. Hence CL06 is closed				

CL ID	07	Section no.	F	Date: 10/10/2018
Description of CL				
PP to clarify whether any Stakeholder Consultation documentation and/or any revised Project documentation is made available to the stakeholders to encourage to comment on the project after commissioning				
Project participant response				**Date:** 10/12/2018
The stakeholder consultation took place at the time of validation and since then no another stakeholder meetings were conducted; however a grievance register is made available for the local stakeholder in case of any complaint. The same is submitted to the DOE for the assessment.				
Documentation provided by project participant				
NA				
DOE assessment				**Date:** 20/12/2018
The clarification by PP on the conducted stakeholder consultation during validation and keeping a grievance register at site for the local stakeholder in case of any complaint is accepted. Hence CL07 is closed				

CL ID	08	Section no.	Document review	Date: 10/10/2018
Description of CL				
PP to brief and submit documents for the procedures employed to 1. Gather concerns and comments by local stakeholders to improve and balance the Project's impacts. 2. 'Sustainable Development assessment' documentation. 3. Discussion on 'Input & Grievance Mechanism'				
Project participant response				**Date:** 10/12/2018
The Grievance register has been availed on the site for the local stakeholders in case of any comments or complaints. Further the parameters mentioned in the monitoring report details out the assessment of the sustainable development. Kindly refer the section D.2 of the monitoring report.				
Documentation provided by project participant				
Grievance register				
DOE assessment				**Date:** 20/12/2018
The verification team accepts the Grievance procedure employed by PP and from the documents submitted it is clear that Grievance register is kept at site for the local stakeholders in case of any comments/complaints. Further the parameters are mentioned in section D.2 of the monitoring report. Hence CL08 is closed.				

Table 3. CAR from this verification

CAR ID	01	Section no.	Document review	Date: 10/10/2018
Description of CAR				
PP to submit the following documents for verification 1. All the trainings records conducted in the monitoring period 2. The document related to technical lifetime 3. Grievance mechanism records				
Project participant response				**Date:** 10/12/2018

All the training records conducted during the monitoring period is submitted for the verification *The document mentioning the lifetime of the project as 25 years have already been submitted during the validation*
Documentation provided by project participant
Trainings records Technical lifetime Grievance register

DOE assessment	**Date:** 20/12/2018
The requested documents were submitted by PP for verification. The team checked the submitted document's and found ok. Hence CAR01 is closed.	

Table 4. FAR from this verification

FAR ID	NIL	**Section No.**	Site visit findings and Document review	**Date:** 10/10/2018
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

Version	*Date*	*Description*
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).
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