



Verification and certification report form for GS project activities
(Version 01.0)

VERIFICATION AND CERTIFICATION REPORT

Title of the project activity	Wind Energy Project in Gujarat
Reference number of the project activity	GS 4426 (CDM 6484)
Version number of the verification and certification report	034
Completion date of the verification and certification report	21/02/2017 02/12/2016
Monitoring period number and duration of this monitoring period	01/05/2014 to 31/03/2016 (Both days inclusive)
Version number of monitoring report to which this report applies	043
Crediting period of the project activity corresponding to this monitoring period	01/05/2014 to 30/09/2022
Project participant(s)	Vish Wind Infrastructure LLP
Host Party	India
Sectoral scope(s), selected methodology(ies), and where applicable, selected standardized baseline(s)	Sectoral Scope 1 - Energy industries (renewable/ non-renewable sources) ACM0002, Version 13
Estimated GHG emission reductions or net anthropogenic GHG removals for this monitoring period in the registered PDD	194,425 tCO ₂ e
Certified GHG emission reductions or net anthropogenic GHG removals for this monitoring period	178,089 ⁺ tCO ₂ e
Name of DOE	Earthood Services Private Limited
Name, position and signature of the approver of the verification and certification report	Dr.Kaviraj Singh Managing Director

⁺ Amount of total emission reductions achieved during the current monitoring period is based on the CERs verified for the period 01/05/2014 to 30/06/2015 (already issued) and from 01/07/2015 to 31/03/2016 (under issuance).
Request for issuance for the emission reductions achieved during the period 01/07/2015 to 31/03/2016 is already submitted to UNFCCC and issuance is awaited. Hence the emission reductions for the current monitoring period under GS shall be deemed final only once ERs for the concerned period get issued.

SECTION A. Executive summary

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

The project activity consists of 63 WTGs (0.8 MW capacity each), making the total installed capacity to be 50.4 MW in the district of Kutch and Jamnagar in Gujarat, India. The WTGs are of Wind World (E-53) make. The WTGs at Kutch site have been commissioned on 31/03/2012 and at Jamnagar site between 02/10/2011 and 03/10/2011. The same was verified against the commissioning certificates/13/.

All 63 WTGs are 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 from 01/05/2014 to 31/03/2016 (including both days) are 178,089tCO₂e.

This verification is an independent and objective review for the additional Gold Standard (GS) requirement, ~~for the two separate and subsequent monitoring periods for the project activity "Wind Energy Project in Gujarat" (GS-4426 & UN 6484). This verification report doesn't include the verification of the GHG parameters but only review the additional requirements for GS labelling the already issued CER. The monitoring period which starts from 01/05/2014 to 30/06/2015 has already been issued the carbon credit by CDM-EB and the monitoring period 01/07/2015 to 31/03/2016 has been submitted for request for issuance to CDM-EB and currently in the process of issuance of carbon credit.~~ ~~The emission reduction which are being verified for the period 01/07/2015 to 31/03/2016, in this report, will only be deemed final after the successful issuance of the same period and emissions from the CDM-EB.~~ of already verified and issued emission reductions for the project activity "Wind Energy Project in Gujarat" (GS-4426 & UN 6484), for the period 01/05/2014 to 31/03/2016. The verification [report](#) addresses the implementation and operation of the GS PA and tests the data and assertions set out in the monitoring report based on the following:

- (i) The registered GS/CDM PDD and Passport
- (ii) The approved methodology mention in the PDD and passport
- (iii) The registered POA-DD & CPA-DD and monitoring plan
- (iv) UNFCCC criteria referred to in the Kyoto Protocol criteria and the CDM modalities and procedures as agreed in the Bonn Agreement and the Marrakech Accords
- (v) The latest Gold Standard (GS) tool kit
- (vi) CDM Validation and Verification Standard (VVS)
- (vii) CDM Project Standard (PS) and Project Cycle Procedure (PCP)
- (viii) Relevant decisions, guidance and clarifications of the CMP and CDM Executive Board and any other information and references relevant to the project activity's reported emission reductions

The verification has considered both quantitative and qualitative aspects on stated/reported emission reductions. The monitoring report (all versions) and corresponding supporting documentation was assessed in accordance with the rules defined by UNFCCC, as appropriate to the PA. The verification is not meant to provide any consulting or recommendations to the [PPCME](#)/others. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

The verification process is conducted as per internal CDM Quality Manual, which includes the following steps;

- a) Contract with PP and appointment of verification team and technical review team (refer Section B.1 and B.2 of this report)
- b) Completeness check of Monitoring Report
- c) Desk review (refer Section C.1 of this report) of Monitoring Report and corresponding ER sheet by verification team and planning of onsite audit (including sampling approach (refer Section C.4 of this report) to be applied)
- d) On site audit (refer Section C.2 of this report) (physical implementation and interview with relevant stakeholders) by verification team
- e) Follow up activities e.g., interviews
- f) Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (refer Section C.5 of this report)

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- g) Independent technical review (refer Section D of this report) of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidences)
- h) Reporting and closure of TR comments/findings (refer Section C.5 of this report) (CARs/CLs/FARs) and final approval for the decision made (refer Section E and F of this report).
- i) Issuance of final verification report to contracted PP (or authorized representatives) and submission of request for issuance, as appropriate.

Based on the outcome of the verification process of the registered PA "Wind Energy Project in Gujarat" for the monitoring period 01/05/2014 to 31/03/2016, we confirm that the implementation of referenced registered PA is complying with applicable GS and CDM rules and regulations as stated in the Monitoring Report (final) Version 043 dated 09/02/2017/02/11/2016. Earthood Services Private Limited is able to certify that the emission reductions from the registered GS PA (4426) "Wind Energy Project in Gujarat" in 'India' during the period 01/05/2014 to 31/03/2016 (including both days) amount to 178,089 tCO₂e. Therefore, this is being submitted for request for issuance, as per GS and UNFCCC procedures as applicable.

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	Soni	Ravi Kant	Central office	Y	Y	Y	Y
2.	Verifier	IR	Soni	Ravi Kant	Central office	Y	Y	Y	Y
3	Meth Expert and Technical Expert	IR	Soni	Ravi Kant	Central office	Y	Y	Y	Y
4	Trainee		Not applicable						

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	Singh	Kaviraj	Central office
2.	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.	Not applicable because no GHG parameters are required to be verified	NA	NA	NA

C.2. Consideration of materiality in conducting the verification

>> not applicable

SECTION D. Means of verification**D.1. Desk review**

The verification is performed primarily as a desk review of the documents submitted at various stages of assessments. The review is performed by assessment team using dedicated protocols (checklists). The assessment team cross checks the information provided in the documents (MR) and information from sources other than those used, if available, and also conducts independent background investigations. Earthood conducted a desk review as under;

- a) A review of the data and information presented to verify their completeness
- b) A review of the monitoring plan (as described in PDD and passport), 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) A review of calculations and assumptions made in determining the GHG data and emission reductions;
- d) 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

The list of documents reviewed during the verification is provided under appendix 3 of this report.

D.2. On-site inspection

Duration of on-site inspection:30/08/2016 to 31/08/2016				
No.	Activity performed on-site	Site location	Date	Team member
1.	<p>An assessment of the implementation of sustainability monitoring plan and operation of the registered project activity as per the registered passport; A review of information flows for generating, aggregating and reporting the monitoring parameters; Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the Passport; 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;</p> <p>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. Interview and feedback of the relevant stakeholders about the PA.</p>	Kutch	31/08/2016	Ravi Kant Soni
2	<p>An assessment of the implementation of sustainability monitoring plan and operation of the registered project activity as per the registered passport; A review of information flows for generating, aggregating and reporting the monitoring parameters; Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the Passport; 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;</p> <p>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. Interview and feedback of the relevant stakeholders about the PA.</p>	Jamnagar	30/08/2016	Ravi Kant Soni

D.3. Interviews with project participants

No.	Interviewee			Date	Subject
	Last name	First name	Affiliation		
1.	Borah	Deepjyoti	Vish Wind Infrastructure LLP (VWIL)	30/08/2016 and 31/08/2016	Monitoring of sustainable development parameters
2.	Vasara	Kishor	WWIL	30/08/2016	Monitoring of sustainable development parameters
3.	Katyal	Puneet	Vish Wind Infrastructure LLP (VWIL)	30/08/2016	Monitoring of sustainable development parameters
4.	Chouhan	Ritesh	WWIL	31/08/2016	Monitoring of sustainable development parameters
5	Baria	K.D	WWIL	31/08/2016	Monitoring of sustainable development parameters

D.4. Interviews with local stakeholders

Earthood as a part of validation procedure conducted a comprehensive interaction with stakeholders. It was done during the site visit on 30/08/2016 and 31/08/2016. It included interaction with the local villagers and, representatives of PP. Earthood team have interviewed the local stakeholders and they were questioned for various topics as summarized below;

- Effect of project on their livelihood and income
- Any problem related to wind turbine installation in nearby areas
- Does the noise generated by wind turbines disturbs any of their activity or comfort
- Are they happy with the benefits and development as CSR activity of the PP
- General feedback about wind farms
- Do they know about the grievance and feedback back register/mechanism?
- Any concerns or feedback; Positive (P) and Negative (N)

No.	Name of Stakeholder	Address	Feedback (Positive/Negative/Concerns)
1.	Hemat Bhadhiya	Local villager	Positive
2.	Kakar Singh	Local villager	Positive
3.	Hasmukh	Local villager	Positive
4.	Vira Bhai	Local villager	Positive
5.	Dharmendra	Local villager	Positive
6.	Hitesh K.	Local villager	Positive
7	Inayat Nasar	Local villager	Positive

D.5. Sampling approach

>>Not applicable as complete setoff data is verified.

D.6. Clarification requests, corrective action requests and forward action requests 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 with the registered PDD	-	-	-
Post-registration changes	-	-	-
Compliance of the monitoring plan with the monitoring	CL #1,	CAR #3 and	-

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methodology including applicable tool and standardized baseline		CAR #4	
Compliance of monitoring activities with the registered monitoring plan	-	-	-
Compliance with the calibration frequency requirements for measuring instruments	-	-	-
Assessment of data and calculation of emission reductions or net removals		CAR #2	-
Others (please specify)	-	-	-
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 05.1 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 finding was raised
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 verification

>>This is first verification. No FAR request from validation

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

Means of verification	<p>The project activity replaces the energy which is being generated mainly by fossil fuel based power generation plants connected to grid and therefore contributes to sustainable development.</p> <p>The project activity consists of 63 WTGs of E-53 Wind World make with individual capacity of 800 kW and aggregates to 50.4 MW in total. All turbines of project activity got commissioned between 02/10/2011 and 31/03/2012 /13/. The WEGs have been in operation during the current monitoring period in compliance with the description provided in the GS Passport.</p> <p>The project implementation, with reference to GS passport, was checked on site to confirm the following:</p> <ul style="list-style-type: none"> • The monitoring system including the measurement of parameters, data collection and archiving was also implemented and operated inline to the GS passport/1/,/3/. • The emission reduction was achieved in compliance with applied methodology, GS passport. • The project contributes to the sustainable development which includes, but not limited to, enhancement of local economy, creating employment and many other benefits to the rural population.
Findings	No issues identified and hence finding was not raised for this section
Conclusion	<ul style="list-style-type: none"> • 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 GS project activity are in place and that the project participants have operated the project activity as per the GS Passport. • No information with regard to data and variables was identified that may surpass the estimated quantity of ERs in the GS Passport. • The emission reductions achieved during the current monitoring period are 178,089 tCO₂e within the estimated quantity (194,425 tCO₂e) in the GS Passport for the comparable period.

E.4. Post-registration changes**E.4.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline**

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

E.4.2. Corrections

>> Not applicable

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

>>Not applicable

E.4.4. Inclusion of a monitoring plan to a registered project activity

>>Not applicable

E.4.5. Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

>> Not applicable

E.4.6. Changes to the project design of a registered project activity

>>No changes to the project design identified during the verification

E.4.7. Types of changes specific to afforestation and reforestation project activities

>> Not applicable

E.5. Compliance of monitoring activities with the registered monitoring plan

Means of verification	Compliance of the monitoring activities related to parameters used in the emission reduction calculations were already verified during the site visit. The monitoring plan outlined in the revised approved PDD is in accordance with the applied methodology and correctly applied by the registered CDM project activity. During the site visit the verification team has verified the sustainability monitoring plan and found to be in compliance with the registered passport.
Findings	No issues identified in section hence finding was not raised.
Conclusion	The monitoring plan outlined in the GS Passport is in accordance with the applied methodology /08/ and correctly applied by the project activity.

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E.5.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	Data and parameters fixed ex-ante are already verified during the CDM verification /19/ & /20/), hence no further verification is required.
Findings	No finding was raised.
Conclusion	The scope of work in the current verification is limited to the labelling of already verified and issued CERs. Hence no further assessment is required.

E.5.2. Data and parameters monitored (Carbon Verification)

The verification of monitoring parameters are in accordance with the monitoring plan described in the registered PDD; the emission reductions (ER) achieved during the period from 01/05/2014 to 31/03/2016 ~~30/06/2015~~ included in the current monitoring period are already issued under the 2nd and 3rd CDM Verification ~~and ER for the period 01/07/2015 to 31/03/2016 are currently under issuance at UNFCCC /19./20/.~~

E.5.3. Data and parameters monitored (Sustainability Verification)

E.5.3.1: Quality of Employment

Means of verification	Criteria/Requirements	
	Measuring /Reading /Recording frequency	It is sustainable development parameter. Quality of employment generated by the project activity is monitored. Project participant conducts various activities on regular basis for improving the <u>skills and thereby</u> quality of employment of its employees. Various indicators of quality of employment viz. quality job creation, working conditions, health care facilities, skill build-up through workshops and trainings, putting safeguard in place and living standard of the plant staff are monitored as and when such activities are organised/12,15,16/.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes The measuring and recording frequency is in line with the monitoring plan of registered passport. The project passport requires the quality of employment to be monitored on annual basis. The assessment team confirms that the monitoring of quality of employment with reference to various parameters viz. training, occupational health, safety of employees and working environment is being done on annual basis /12,15,16,17/.
	How were the values in the monitoring report verified?	The following training programmes in order to enhance the safety awareness, operational skills and occupational health management have been organised during the current monitoring period; Trainings and workshops" organized in Kutch site /12(i)/ to : i. Training on Skills and Competency matrix, at Rasaliya Office , on 29/08/2014 ii. Soft skills trainings & safety related training workshop, at Rasaliya Substation on 22/09/2014. iii. Skill and Competency training, SAP training etc. at Rasaliya Office (Kutch), on 29/09/2014 iv. SAP training at Rasaliya Office (Kutch), on 30/09/2014. v. Internal Safety training at Rasaliya Substation (Kutch), on 09/09/2015. vi. Technical training on Substation and Line, at Rasaliya Substation (Kutch) on 07/10/2015 "Trainings and workshops" organized in Jamnagar site/12(ii)/: vii. Refreshers training module, at Lalpur site (Jamnagar), on 14/09/2015 viii. S.H.E training at Lalpur Site (Jamnagar), on 20/06/2016 and 10/07/2016.

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	If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data has been cross checked with the quantitative information about the quality of employment which includes the records of HR, training, health care facilities etc. are maintained /9,12/.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Counting of the number of trainings and respective attendees is done by a training attendance sheet which states the programme name, venue, faculty, date and timing, attendee details (employee code, name, designation and department). Each training attendance sheet has a unique form number. Numbers of jobs created has been categorized and records are maintained accordingly. Records of any activity related to the quality of employment is maintained by HR.
Findings	CAR #4 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the sustainability monitoring plan (as per measurement methods and procedures to be applied). The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.5.3.2: Human and institutional capacity

Means of verification	Formatted Table	
	Criteria/Requirements	
	Measuring /Reading /Recording frequency	It's a sustainable development parameter which monitors the number of villagers directly or indirectly benefited by the CSR activity initiatives, referring to the project, undertaken by the project proponent. This parameter is monitored on annual basis.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The number of local villagers, directly and indirectly benefited by the project activity, is monitored annually which is found in line to the frequency set in passport /3/.
	How were the values in the monitoring report verified?	<p>Project proponent has initiated the number of CSR programmes pertaining to capacity building, health, education etc. The main CSR activities verified are as below;</p> <ul style="list-style-type: none"> • Developments of roads, pass ways and animal water facility in connected villages/18/. • Monetary contribution to gram panchayat and communities for social welfare/11(i) & (ii)/ • Organized tree plantation programs and yoga training at schools/18/ • Donation of books, stationery and sport kits for nearby village schools at both the sites/11 (iii) & (iv)/ • Distributed water purifiers free in the nearby village schools at both the sites/18/ • Organized health camps and blood donation camps/18/ <p>The verification team is in opinion that estimation of the exact number of local villagers who have been benefited by these initiatives is very difficult. However, taking note of the type of CSR activities initiated/18xx/ and observation of the stakeholders interviews and time duration of monitoring period, it can be concluded that the villagers of the nearby</p>

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		project sites have been benefitted convincingly. It is also important to note that the social initiatives take care of long term and broad impacts.
	If applicable, has the reported data been cross-checked with other available data?	The parameter was verified using documented evidence like, CSR & Sustainability record, cash payment vouchers, attested letters from organizations concerned, photographs relevant to particular activity, stakeholder interview and on-site observation and found okay /07,10,11,18/.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes during the site visit it is assured that the project proponent has appropriately maintained the records for the CSR activities, hence it can be confirmed that the QA/QC process is in place.
Findings	CAR #3 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the sustainability monitoring plan (as per measurement methods and procedures to be applied). The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.5.3.3: Quantitative employment and income generation

Means of verification	Criteria/Requirements	
	Measuring /Reading /Recording frequency	This is a sustainable development parameter to monitor the total number of employment opportunities created. Total number of job created for the local population is monitored on annual basis or at least once in monitoring period.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The monitoring frequency is in line with the passport /3/.
	How were the values in the monitoring report verified?	Total number of job created by the project is 24 which includes technical WWIL staff, security guards and office boy. This is verified from the HR records that all local guards belongs to the local areas/9/. Also, most of the staff of VWIL is from the local areas however it does have some senior personal from outside. The local contracts were also found from the local nearby areas. The assessment team has interviewed the guards and observed that almost all of the personnel were unemployed before taking up the job of security guards with the project developer. Therefore, the assessment team is in opinion that the project activity contributes to the livelihood of the poor. In addition to the direct jobs created, quite a few indirect jobs were created by the project activity like frequent visits to the project site by various stakeholders of the project (project developers, technicians, auditors, vendors and suppliers) gives rise to a demand for various support services in the local area. This results in increased livelihood options and income generation for the local population and estimation of such number is a bit difficult task.
	If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross checked with the HR records maintained by the project proponent and interviewing the local stakeholders during the site visit.

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	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The HR department monitors and maintains the up to date records of total number of job created, necessary QA/QC processes in place.
Findings	CL #1 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the sustainability monitoring plan (as per measurement methods and procedures to be applied). The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.5.4. Implementation of sampling plan

Means of verification	Not applicable
Findings	Not applicable
Conclusion	Not applicable

E.6. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	The requirements have already been verified and CERs for the current monitoring period has been issued by CDM EB/13/
Findings	Not applicable
Conclusion	No further verification is required in this regard.

E.7. Assessment of data and calculation of emission reductions or net removals

E.7.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	<p>The assessment team has verified the verification reports for the following verifications<u>following verifications</u> i.e</p> <ul style="list-style-type: none"> For the period 01/04/2013 to 30/06/2015 the amount of CERs issued were 206,529tCO₂/19/. For the period 01/07/2015 to 31/03/2016, the amount of CERs issued <u>verified</u> were <u>as</u> 62,768tCO₂ and request for issuance is submitted to UNFCCC/20/. <p>Since the current monitoring period starts from 01/05/2014, hence the emission reduction for the period from 01/05/2014 to 30/06/2015 is calculated multiplying the verified values of EGy for that particular period and emission factor <u>as</u>:</p> $= 121,555.515 * 0.94881 = 115,333\text{tCO}_2$ <p>Hence total emission reductions achieved during the current monitoring period is verified as:</p> $115,333(01/05/2014 \text{ to } 30/06/2015) + 62,768(01/07/2015 \text{ to } 31/03/2016) = 1,78,089 \text{ tCO}_2 \text{ (Rounded down value has been considered)}$ <p>Note: Following the conservative approach, the monthly values of baseline emissions have been rounded down, hence the final value arrived above is less than the submission but the most conservative, hence accepted. The calculation of baseline emissions and ERs can be further referred through the ER spreadsheet for the current monitoring period.</p>
Findings	CAR #2 was raised and resolved
Conclusion	<p>The verification team confirms that</p> <ol style="list-style-type: none"> The complete data was available and is duly reported; Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals were followed; Appropriate emission factors and other reference values were correctly

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	<p>applied.</p> <p>d) There is no pro-rate approach (para 403(e) of CDM VVS Version 09) 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.</p>
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E.7.2. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	The requirements have already been verified and CERs for the current monitoring period has been issued by CDM EB/13/
Findings	Not applicable
Conclusion	No further verification is required in this regard.

E.7.3. Calculation of leakage GHG emissions

Means of verification	The requirements have already been verified and CERs for the current monitoring period has been issued by CDM EB/13/
Findings	Not applicable
Conclusion	No further verification is required in this regard.

E.7.4. Summary of calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	The assessment team has verified the verification reports/19/ covering the current monitoring period and confirmed that CERs have already been issued.
Findings	Not applicable
Conclusion	No further verification is required

E.7.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification	Not applicable
Findings	Not applicable
Conclusion	Not applicable

E.7.6. Remarks on difference from estimated value in registered PDD

Means of verification	Not applicable
Findings	Not applicable
Conclusion	Not applicable

E.7.7. 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	As verified from the verification reports available at UNFCCC project webpage, that those CERs for the period from 01/05/2014 to 31/03/2016 <u>30/06/2016</u> have already been <u>issued</u> . The assessment team has checked the ER calculation sheet/6/ and emission reductions for the current monitoring period (01/05/2015 to 31/03/2016) is verified as 1,78,089 tCO ₂
Findings	Not applicable
Conclusion	Earthood confirms that the monitoring system with reference to GS sustainable development parameters is in place for already issued emission reductions from the CDM project activity (UN 4700) "Wind Energy Project in Gujarat" in India for the monitoring period 01/05/2014 – 31/03/2016 which amount to 1,78,089 tonnes of CO ₂ .

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SECTION F. Internal quality control

A draft verification report prepared by assessment 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 Gold Standard and CDM 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 validation team. The report approved by Quality Manager is endorsed by Managing Director, who is overall responsible to ensure quality, before final release. The further details of applicable procedures and responsibilities about Earthood Quality Management System (QMS) are available on its website (www.earthood.in)

SECTION G. Verification opinion

Earthood Services Private Limited (Earthood), contracted ~~by Vish Wind Infrastructure LLP~~, has performed the independent verification of the emission reductions for the GS Project "Wind Energy Project in Gujarat" in "India" for the monitoring period 01/05/2014 to 31/03/2016 as reported in the Monitoring Report, Version 04 ~~dated 09/02/2017~~ ~~02/11/2016~~. The 'Vish Wind Infrastructure LLP' is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. Earthood commenced the verification against the baseline and monitoring methodology "Consolidated baseline methodology for grid connected electricity generation from renewable sources", Version 13 the monitoring plan contained in the PDD Version 06 dated 23/07/2013, GS Passport Version 03 dated 20/04/2016 and Monitoring Report Version 04 ~~dated 09/02/2017~~ ~~02/11/2016~~.

ESPL confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. This verification report has been prepared using the latest available template specified by UNFCCC and complies with the instructions to follow as per para 406 and 407 of CDM VVS Version 9. The verification activities were conducted in accordance with ESPL's CDM Quality Manual System as per the steps indicated under Section A of this report.

As a result, it is confirmed that the emission reductions from the GS PA (6484) "Wind Energy Project in Gujarat" are correctly reported in the Monitoring Report (final) Version 03 dated 02/11/2016 and corresponding ER sheet for the monitoring period 01/05/2014 to 31/03/2016 (including both days) amounted as 1,78,089 tCO₂e. Therefore, this will be submitted as part of request for issuance as per CDM PCP Version 9 & GS tool kit 2.2.

Note:

~~It is to be noted that the current monitoring period involves the amount of CERs issued during the period starting from 01/07/2015 to 31/03/2016 under CDM. ESPL would like to confirm that amount of CERs for the period from 01/07/2015 to 31/03/2016 are verified as 62,768 tCO₂e and request for issuance for this period has been submitted to UNFCCC which is currently under process. In case if any issues raised by UNFCCC during the process that may impact on amount of CERs verified, shall be addressed in this report.~~

SECTION H. Certification statement

ESPL's 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 are fairly stated in the Monitoring Report (final) Version 03 dated 02/11/2016. ESPL, based on outcome of verification activities, certifies in writing that, during the monitoring period 01/05/2014–31/03/2016 (including both days), the registered GS PA "Wind Energy Project in Gujarat" in the registered GS PA achieved the verified amount of 1,78,089 tCO₂e reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PA.

The verified amount of emission reductions is stated below as per each CPAs and as per commitment period;

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Emission Reductions (Amount) in this monitoring period		
Year	Duration	Emission reduction
2014	01/05/2014 to 31/12/2014	66,527tCO ₂ e
2015	01/01/2015 to 31/12/2015	98,728tCO ₂ e
2016	01/01/2016 to 31/03/2016	12,834 tCO ₂ e
Total	Nil	1,78,089tCO ₂ e

Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM PCP	Clean Development Mechanism Project Cycle Procedure
CDM PS	Clean Development Mechanism Project Standard
CDM VVS	Clean Development Mechanism Validation and Verification Standard
CEA	Central Electricity Authority
CER	Certified Emission Reduction
CL	Clarification Request
DOE	Designated Operational Entity
DNA	Designated National Authority
EB	Executive Board
ER	Executive Board
ESPL	Earthhood Services Private Limited
FAR	Forward Action Request
GEDA	Gujarat Electricity Development Authority
GETCO	Gujarat Electricity Transmission Company
GHG	Greenhouse Gas(es)
GS	Gold Standard
GUVNL	Gujarat Urja Vikas Nigam Limited
IPCC	Intergovernmental Panel on Climate Change
JMR	Joint Meter Reading
MP	Monitoring Plan
MR	Monitoring Report
PDD	Project Design Document
PPA	Power Purchase Agreement
PP	Project Participant
PRC	Post Registration Changes
PS	Project Standard
RMP	Revised Monitoring Plan
VVS	Validation and Verification Standard
UID	Unique Identification number
UNFCCC	United Nations Framework Convention on Climate Change
WTG	Wind Turbine Generator
WWIL	Wind World (India) Limited

Appendix 2. Competence of team members and technical reviewers

Competence Statement	
Name	Ravi Kant Soni
Country	India
Education	B. Tech. (Mechanical Engineering) M. Tech. (Energy Management)
Experience	7 Years
Field	Energy and Climate Change

Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-I.C., ACM0002		
Local Expert	YES(India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.2)	YES		
Reviewed by	Abhishek Mahawar	Date	09/09/2016
Approved by	Kaviraj Singh	Date	09/09/2016

Competence Statement			
Name	Kaviraj Singh		
Country	India		
Education	Ph.D. (Environmental Engineering), IIT Delhi		
	M.Phil. (Energy & Environmental), DAVV Indore		
Experience	8 Years		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.2)	YES		
TA Expert (13.1)	YES		
TA Expert (13.2)	YES		
TA Expert (15.2)	YES		
▲			
Reviewed by	Abhishek Mahawar	Date	30/03/2014
Approved by	Ashok Gautam	Date	30/03/2014

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Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
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1	PP	GS Passport	Version 03, dated 20/04/2016	Other
2	ESPL	GS Validation Report,	Version 02,dated 27/01/2016	Other
3	PP	ER spreadsheet (initial)	Version 01, dated 17/07/2016	PP
4	PP	Monitoring Report	Version 1 dated 17/07/2016	PP
4.1		Monitoring Report	Version 2 dated 30/09/2016	PP
4.2		<u>Monitoring Report</u>	<u>Version 03 dated 02/11/2016</u>	
5	PP	Monitoring Report (final)	Version 04 3 dated 09/02/2017 02/11/2016	PP
6	PP	ER spreadsheet (final)	Dated 02/11/2016	PP
7	ESPL	On site verification activities including physical inspection and interviews of the personnel	-	Other
8	UNFCC C	Methodology ACM0002	Version 13	Other
9	PP	HR records for various parameters viz. total number of employees, type of employment, quality of employment etc.	-	PP
10	ESPL	Photographs of working staff at site and security guards	-	Other
11	PP	<ul style="list-style-type: none"> i. Cash payment voucher in the name of Rasaliya gram panchayat ii. Cash payment voucher in the name of Nana Kadiya Prathmik School,Nakhatrana,Kutch iii. Cash payment voucher in the name of Lalpur gram panchayat iv. Cash payment voucher in the name ofTebhada Primary School(Vadisala 1,2) 	-	PP
12	PP	<p>Training records (Attendance and photographs)</p> <p>(i)“Trainings and workshops” organized in Kutch site:</p> <ul style="list-style-type: none"> • Training on Skills and Competency matrix, at Rasaliya Office , on 29/08/2014. • Soft skills trainings & safety related training workshop, at Rasaliya Substation on 22/09/2014. • Skill and Competency training, SAP training etc. at Rasaliya Office (Kutch), on 29/09/2014. • SAP training at Rasaliya Office (Kutch), on 30/09/2014. • Internal Safety training at Rasaliya Substation (Kutch), on 09/09/2015. • Technical training on Substation and Line, at Rasaliya Substation (Kutch) on 07/10/2015 <p>(ii) “Trainings and workshops” organized in Jamnagar site:</p> <ul style="list-style-type: none"> • Refreshers training module, at Lalpur site (Jamnagar), on 14/09/2015 	-	PP

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		<ul style="list-style-type: none"> S.H.E training at Lalpur Site (Jamnagar), on 20/06/2016 and 10/07/2016. 		
13	UNFCCC	UNFCCC project web page http://cdm.unfccc.int/Projects/DB/DNV-CUK1340349635.01/view	-	Other
14	GS	GS project webpage https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000010036	-	Other
15	PP	Records of Safety system and procedures implemented on site	-	PP
16	PP	Records of health care and first aid facilities for employees available on/off site	-	PP
17	PP	Policy, procedure and records for occupational safety	-	PP
18	Others	CSR and Sustainability Report, Gujarat	February 2016	PP
19	ESPL	CDM verification report: For the period: 01/04/2013 to 30/06/2015 (Ref: https://cdm.unfccc.int/Projects/DB/DNV-CUK1340349635.01/iProcess/ESPL1438575382.15/view)	-	Other
20	ESPL	CDM verification report: For the period : 01/07/2015 to 31/03/2016 (Ref: https://cdm.unfccc.int/Projects/DB/DNV-CUK1340349635.01/iProcess/ESPL1468926487.83/view)	-	Other

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

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

FAR ID	Xx	Section no.	-	Date:DD/MM/YYYY
Description of FAR				
No FAR remaining from validation				
Project participant response				Date:DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date:DD/MM/YYYY
NA				

Table 2. CL from this verification

CL ID	01	Section no.		Date :28/09/2016
Description of CL				
MR section D.4: Indicator -Quantitative employment and income generation : Number of persons employed for the project activity is 24 but it is not clear how many persons were employed for particular designation i.e technical staff/security guards/Labour etc. Please clarify and submit the relevant appropriate evidences for the same.				
Project participant response				Date : 30/09/2016
The details of employment are recorded internally; such employment records also include the particular designation of the employee. The documents pertaining to the same have been submitted to DOE for further verification.				
Documentation provided by project participant				

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Records of employment (separately submitted for Lalpur and Kutch Site).	
DOE assessment	Date: 25/10/2016
Designations of the of the employee is verified through the employment records submitted by the PP for the both the sites and found to be appropriate, hence accepted. CL #1 is closed	

Table 3. CAR from this verification

CAR ID	02	Section no.	E.7	Date : 28/09/2016
Description of CAR				
ER calculations for each vintage is provided in the ER calculation sheet but not provided in the MR. Please clarify. ER sheet (Tab: Generation details): It is mentioned that delay in calibration of meters is identified & addressed during the current monitoring period but as stated in the MR (P.17), there is no delay in calibration indentified during the current monitoring period. Please clarify the ambiguity observed.				
Project participant response				Date : 30/09/2016
The vintage wise estimation of emission reductions are now included in the MR. Please refer to the section E.1 of the MR, version 02. ER Sheet: PP would like to clarify that the earliest due dates for meter testing for the energy meter no. GJU60957 and GJU61308 (as referred in the section C of the MR) at Lalpur site was on 3rd Sep 2013 and 18th Dec 2013, respectively. However, there was delay in both the cases and next immediate testing for the meters were conducted on 14-Sep-2014 for both the meters. Hence correction factor is applicable for the period "Sep 2013 to Sep 2014" for the Lalpur site, which is a conservative approach. Therefore, the initial applicable months of the current monitoring period, i.e. May 2014 to Sep 2014 have been applied with error factor. This is also consistent with the CDM verification. The same information is now included in the MR, section C. Hence, the information in both MR and ER sheet are now consistent.				
Documentation provided by project participant				
MR version 02, dated 30/09/2016 ER sheet, version 02, dated 30/09/2016				
DOE assessment				Date: 25/10/2016
Vintage wise estimation of ER is reported in section E.1 of the revised MR. Delay in calibration of the meters is satisfactorily applied for the concerned period, found to be consistent with CDM monitoring period. Information's updated in the revised MR and ER sheet are found to be correct and consistent. Value of parameter $EG_{facility,y}$ (At Lalpur site) reported in the ER sheet for the month July 2015 and February 2016 is inconsistent with share certificate and invoice for the respective months. CAR #2 is open.				
Project participant response				Date : 02/11/2016
The values pertaining to the parameter $EG_{facility,y}$ (At Lalpur site) for the month of July 2015 and February 2016 are now corrected, hence same are now consistent with the Share Certificates and Invoices of the respective months. Please refer to the revised ER sheet and the revised MR.				
Documentation provided by project participant				
Revised ER sheet, version 03, dated 2 nd Nov 2016 Revised MR, version 03, dated 2 nd Nov 2016				
DOE assessment				Date: 20/11/2016
The PP has corrected the values pertaining to the parameter $EG_{facility,y}$ (At Lalpur site) for the month of July 2015 and February 2016 in the revised ER sheet and found to be consistent with source documents, hence accepted. CAR #2 is closed.				

CAR ID	03	Section no.	E.5.3	Date : 28/09/2016
Description of CAR				

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Section D.4 Indicator :Human and Institutional capacity-	
PP is requested to provide the complete references (dates/location/name of gram panchayat) for the each activity/initiative listed under this parameter and also submit the relevant evidences.	
Please clarify if the initiatives have been undertaken by the PP in the form of health camps, infrastructure supports for schools to facilitate better access to health and education for the local public are recoded internally. If yes then please submit the evidence.	
Project participant response	Date : 30/09/2016
The further references pertaining to the parameters included under the Indicator 'Human and Institutional Capacity' are now included in the table, under the Section D.4. Also, a few footnote references are included (footnote #5) pertaining to the parameter ref. 10. All evidences to support the parameters and its references have been submitted to DOE. Also a report on Sustainable Development is being submitted to DOE which includes the references to all such parameters.	
Yes, the initiatives taken up by PP in the areas of health, education, infrastructure, socio-cultural development etc. had been documented internally, in the form of a Sustainability Report. This report describes the activities and also the photographic evidences of the real action/project/program executed by PP in the respective sites. PP is submitting the signed copy of the Sustainability Report to DOE for further reference.	
Documentation provided by project participant	
MR version 02, dated 30/09/2016	
Report: Sustainable Development, Gujarat, Feb 2016	
DOE assessment	Date: 25/10/2016
The PP has provided the complete references (dates/location/name of gram panchayat) for the each activity/initiative listed under the parameter (Human and Institutional capacity), found to be satisfactory. All the initiatives have been undertaken by the PP in the form of health camps, infrastructure supports for schools to facilitate better access to health and education for the local public are recoded internally in the report titled "Sustainable Development, Gujarat" ,Feb 2016, the same is verified through the report submitted, found to be satisfactory.	
CAR #3 is closed.	

CAR ID	04	Section no.		Date : 28/09/2016
Description of CAR				
MR section D.4 (Grievance Mechanism): Please clarify why the name of concern person who had raised comments/suggestions is not mentioned in this section. Also submit the evidences regarding the objections/suggestions recorded as a part of grievance mechanism.				
Project participant response				Date : 30/09/2016
The details of the persons submitting comments/ suggestions etc. are recorded in the register book kept in the respective substations, as per the provision prescribed under the GS Passport. Only the summary of the same has been included in the MR section D.4, under Grievance Mechanism.				
However, PP has now revised the section and name references are included in the comments table. Please refer to the revised MR version 02.				
Documentation provided by project participant				
MR. Version 02, dated 30/09/2016				
DOE assessment				Date: 25/10/2016
Identification of the person who had raised comments/suggestions is mentioned in section D.4 of the revised MR. Updated information's are verified through the evidences submitted and found to be consistent.				
CAR #4 is closed.				

Table 4. FAR from this verification

FAR ID	Xx	Section No.		Date:DD/MM/YYYY
Description of FAR				
No FAR raised in this verification				
Project participant response				Date:DD/MM/YYYY
NA				
Documentation provided by project participant				

NA	
DOE assessment	Date:DD/MM/YYYY
NA	

Document information

Version	Date	Description
01.0	23March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: project activities, verifying and certifying		