



VALIDATION OPINION
of
the revision of monitoring plan
of the registered
CDM Project Activity

**Wind Power Project by
Sargam Retails Pvt. Ltd. in
Gujarat, India.**
(UNFCCC Reference No: 3724)

in
India

REPORT NO. 01 997 9105066035
VERSION 05, 2012-04-25

TÜV Rheinland (China) Ltd.

I. Project data:

Project title:	Wind Power Project by Sargam Retails Pvt. Ltd. in Gujarat, India.
Registration date:	11/11/2010
UNFCCC Reference No.	3724
Methodology:	AMS-I.D., version 15
GHG reducing measure/technology:	Displacement of electricity (from grid) through renewable energy technology.

Party	Project participant(s)	Party considered a project participant
India	Sargam Retails Private Limited (SRPL)	No

II. Verification data:

Contracting Entity:	Sargam Retails Private Limited (SRPL)
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Verification team

Role	Full name	Appointed for Sectoral Scopes	Affiliation
Team Leader	Mr. Asim Kumar Jana	1, 2, 3, 4, 5, 11, 12, 13	TÜV Rheinland (India) Pvt. Ltd.
Team Member /Trainee / Local Expert	Mr. Raj Kumar Deka Mr. Vikash Kumar Singh Mr. Chetan Swaroop Sharma	1, 2, 3 1, 3 -	TÜV Rheinland (India) Pvt. Ltd. TÜV Rheinland (India) Pvt. Ltd. TÜV Rheinland (India) Pvt. Ltd.
Technical Reviewer	Dr. Lixin Li	1, 3	TÜV Rheinland (China) Pvt. Ltd.

III. Validation report data:

Report No.: 01 997 9105066035	Current revision No.: 05	Date of current revision: 2012-04-25	Date of first issue: 2011-10-21
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Final approval: <input checked="" type="checkbox"/>	Released on: Dated: 2012-04-26 By: Mr. Praveen Urs	Designated Operational Entity (DOE): TÜV Rheinland (China) Ltd. Unit 707, AVIC Building, No.10B, Central Road, East 3rd Ring Road, Chaoyang District, Beijing, China 100022 Tel.: +86 10 6566 6660, Fax: +86 10 6566 6667 E-mail: ghg-doe@bj.chn.tuv.com
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Validation opinion — summary

Project participant of the registered CDM Project “Wind Power Project By Sargam Retails Pvt. Ltd. in Gujarat, India.” has identified the need of revising of the monitoring plan to improve accuracy and completeness of the monitoring information (Cp para 57 of CDM M&P and Procedures for Revising Monitoring Plans in Accordance with Paragraph 57 of the Modalities and Procedures for the CDM, Version-2, EB-49, Annex-28) and requested DOE to validate the revision of the monitoring plan.

The DOE (TÜV Rheinland (China) Ltd.) has carried out a validation of the revised monitoring plan in accordance with the

- “Procedures for revising monitoring plans in accordance with paragraph 57 of the Modalities and procedures for CDM” (§ 9 of Annex 28 of EB 49)

This revision enhances the level of accuracy and completeness of the monitoring plan.

Validation opinion in accordance with paragraph 9 of annex 28 of EB 49

(a) Level of accuracy and completeness

- ☒ TUV Rheinland herewith confirms that the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced.

The assessment of each proposed changes in the revised monitoring plan in comparison with the registered PDD are presented in the tabulated form as below:

Table (a).1

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
Changes in "section B.7.1"			
Parameter: EG_y			
Data Parameter:	No Change	No Change	NA
Data unit:	No Change	No Change	NA
Description:	Net Quantity of Electricity supplied to GETCO facility	Net Electricity supplied to grid by the project activity	<p>The description of the parameter has been changed inline with actual monitoring and as per the applied methodology (AMS-I.D. Version 15) monitoring requirement.</p> <p>This will increase the completeness of the monitoring plan.</p>
Source of data to be used:	Share Certificate used by GEDA/SLDC (State Load Dispatch Centre) (Net electricity supplied to grid indicated in share certificate will be crosschecked with the invoices raised by PP).	<p>Share Certificate¹ issued by GETCO/ GEDA/ SLDC (State Load Dispatch Centre)/ Authorized representative</p> <p>Foot note 1: Share certificate contains the information about the monthly net electricity supplied to grid by the WTGs of project activity which is issued by GETCO/ GEDA/ SLDC (State Load Dispatch Centre)/ Authorized representative.</p>	<p>As the Share certificate is issued either of GETCO/ GEDA/ SLDC (State Load Dispatch Centre)/ Authorized representative which is verified by the document review /P03/. The editorial correction increases the transparency of the monitoring plan.</p> <p>Moreover the sentence "Net electricity supplied to grid indicated in share certificate will be crosschecked with the invoices raised by PP" is deleted as the same is already given under "QA/QC Procedures to be applied" in the table for the same parameter. The deletion of the repetition is deemed correct.</p> <p>Footnote 1 is added to transparently describe the content of share certificate.</p> <p>This will increase the</p>

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
			completeness and accuracy of the monitoring plan.
Value of data:	No Change	No Change	NA
Description of measurement methods and procedures to be applied:	<p>Net Electricity generated is in kWh. However for the calculation purpose Net electricity generated is calculated / converted in MWh. The WEGs of a single customer (SRPL in this case) in a particular location are connected to a Vacuum Circuit Breaker metering yard (VCB) which in turn connects to a feeder that ultimately leads to the bulk main GETCO meter of accuracy class 0.2s, at the substation maintained by Enercon India Limited.</p> <p>Net electricity generated by SRPL wind farm will be monitored and reported by GEDA /SLDC (State Load Dispatch Centre) in its share certificate on the basis of the metering done at the bulk main meter connected to the incoming feeder of GETCO and the meters installed at the VCB metering yard.</p> <p>Data monitoring for electricity exported and electricity imported takes place at the VCB metering yard and GETCO meter at the substation. The electricity metered at the GETCO meter is proportionally divided among the customers connected to the meter on the basis of the pro-rata readings taken at the VCB end. There are three meters at the GETCO sub-station each of accuracy class 0.2s and one dedicated meter for SRPL at each VCB metering yard for twelve WEC.s of accuracy class ranging between 0.2s/0.5s.</p> <p>The emission reduction calculations are done on the basis of the net electricity</p>	<p>The share certificate having the net electricity supplied to grid by the WTGs of SRPL wind farm is made on the basis of monitored electricity through meters at the sending end of the 220 kV substation and at the meters installed at the 33 kV metering yard as per PPA / updated procedure by GUVNL.</p> <p>The value will be calculated from the measured parameters as given in the <u>"Apportioning Procedure for the project activity"</u> section B.7.2.</p> <p>The lower value of net electricity supplied to grid by the project activity obtained from the apportioning formula provided in section B.7.2. or the Share certificate will be used for the emission reduction calculations.</p> <p>The accuracy class of the substation meters is 0.2s and the accuracy class of yard meters ranging between 0.2s/0.5s</p>	<p>The correction is done on the basis of the actual implemented monitoring system. The share certificate is made by the utility company on the basis of the PPA / updated procedure.</p> <p>The "Data type: Calculated" and "Monitoring Frequency: Monthly" is now added in the revised monitoring plan.</p> <p>The correction increases the correctness of the monitoring system as verified during the site visit.</p>

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
	supplied as mentioned in the share certificate issued by GEDA/SLDC (State Load Dispatch Centre) on monthly basis.	Data Type: Calculated Monitoring Frequency: Monthly	
QA/QC procedures to be applied:	<p>Annual calibration of all the meters will be undertaken at required intervals and faulty meters will be duly replaced immediately.</p> <p>(Net electricity supplied to grid indicated in share certificate will be crosschecked with the invoices raised by PP).</p>	(Net electricity supplied to grid indicated in share certificate will be crosschecked with the invoices raised by PP).	<p>As this is a calculated parameter from the measured parameters ($EG_{y,Total}$, $EG_{WTG,y}$ and $EG_{Total\ WTG,y}$) hence the calibration is not applicable for this parameter.</p> <p>However the calibration of the meters used for the input parameters ($EG_{y,Total}$, $EG_{WTG,y}$ and $EG_{Total\ WTG,y}$) is mention under “QA/QC procedures to be applied:” in respective tables in B.7.1.</p> <p>During the time of validation and registration of the project activity, the calibration of all the meters was planned to be annually, However as the calibration of the meters installed (meters at the 33 kV metering yard and at the sending end of the 220 kV substation) is under the control of the state electricity utility and the GETCO (Gujarat Energy Transmission Corporation Limited) has given a letter to the O&M Contractor that the calibration of all the meters will be done in once in three year. The verification team has verified the letter /P02/ dated 29/01/2011 and found the same correct.</p> <p>The calibration frequency of the meters is reduced from “annually” to “once in three year”, which is not under the control of the PP. however the calibration frequency in the revised monitoring plan “once in three year” is within the limit as per the latest available version 17 of “General Guidelines to SSC CDM methodologies”.</p> <p>The net electricity exported by the project activity will be cross checked with duly acknowledged invoice by state utility.</p>

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
			The changes will not decrease the accuracy and the completeness of the monitoring plan.
Any comment:	The data will be archived electronically for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.	<p>The data will be archived electronically for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.</p> <p>In case the monitoring cycle and the billing cycle date does not match then a conservative approach will be adopted to monitor/calculate the net electricity supplied to the grid.</p>	The change confirms to the VVM requirement and will not decrease the conservativeness, accuracy and the completeness of the monitoring plan.
Parameter: $EG_{y,Total}$			
$EG_{y,Total}$ Description - Net Electricity supplied to grid by project as well as non-project activities recorded at the 33/220 kV sub-station.	Not incorporated.	Incorporated in the revised MP as required for apportioning calculation	<p>The parameter will be used to confirm the value of EG_y, which is taken from the share certificate. The change confirms to the VVM requirement and will increase the transparency, accuracy and the completeness of the monitoring plan.</p> <p>The justification of the change of calibration frequency is mentioned under the description “QA/QC Procedures to be applied” for the parameter EG_y in this table.</p> <p>The meters at 220 kV sub-station are bilateral and net electricity can be calculated from the monitored value of import and export of electricity at the substation.</p>
Parameter: $EG_{WTG,y}$			
$EG_{WTG,y}$ Description -	Not incorporated.	Incorporated in the revised MP as	The parameter will be used to confirm the value of EG_y , which is

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
Net Electricity supplied by the WTGs of SRPL recorded at 33 kV metering yard.		required for apportioning calculation	<p>taken from the share certificate. The change confirms to the VVM requirement and will increase the transparency,, accuracy and the completeness of the monitoring plan.</p> <p>The justification of the change of calibration frequency is mentioned under the description “QA/QC Procedures to be applied” for the parameter EGy in this table.</p> <p>The meters at 33 kV metering yard are bilateral and net electricity can be calculated from the monitored value of import and export of electricity.</p>
Parameter: EG_{Total WTG,y}			
EG _{Total WTG,y} Description - Net Electricity supplied by all the WTGs (project activity and non-project activities) connected to 33/220 kV sub-station recorded at 33 kV metering yard.	Not incorporated.	Incorporated in the revised MP as required for apportioning calculation	<p>The parameter will be used to confirm the value of EGy, which is taken from the share certificate. The change confirms to the VVM requirement and will increase the transparency,, accuracy and the completeness of the monitoring plan.</p> <p>The justification of the change of calibration frequency is mentioned under the description “QA/QC Procedures to be applied” for the parameter EGy in this table.</p> <p>The meters at 33 kV metering yard are bilateral and net electricity can be calculated from the monitored value of import and export of electricity.</p>
Changes in “section B.7.2”			
The revisions in section B.7.2 was done as per annex 28 EB 49. The validation team confirms that the revision increases the accuracy and completeness of the monitoring plan. Few of the major changes are highlighted below along with the validation opinion.			
Section B.7.2	The project activity AMS I.D, CDM project activities-Version 13, - Grid generation.	The project activity AMS I.D, CDM project activities-Version 15, - Grid generation.	<p>The applied methodology under the project activity is AMS-I.D. Version 15 which is also evident from the CDM project page http://cdm.unfccc.int/Projects/DB/SGSUKL1274284964.32/view.</p> <p>The methodology version 13 given in the section B.7.2 of the registered PDD was a typographical error and the same has been corrected in the revised</p>

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
			<p>monitoring plan.</p> <p>The revision increases the correctness of the monitoring system and does not reduce the accuracy and the completeness of the monitoring plan.</p>
Section B.7.2	“The monitoring methodology that will be incorporated for project-monitoring plan consist of metering the electricity generated by the individual WECs.”	“The monitoring methodology that will be incorporated for project-monitoring plan consist of metering the electricity generated by the individual WECs.”	<p>The metering is done in the 33 kV metering yard, which is dedicated to the PP WTG only. The yard meter may be connected to a single WTG or many WTGs of the PP only depending on the location of the WTGs.</p> <p>The revision increases the correctness of the monitoring system and does not reduce the accuracy and the completeness of the monitoring plan.</p>
Section B.7.2	Reading and correction of meters: a) The WTGs of a single customerThe details have been provided below:	Reading and correction of meters: a) The WTGs of a single customerThe details have been provided below:	The paragraphs were the repetition of the PPA clauses hence deletion of the paragraphs does not reduced the accuracy of measurement.
Section B.7.2	--	<p><i>Added heading “Description of calibration of WTG Controller” and sentence “The controller used for the WTG is SCS Controller is a micro-processor based intelligent controller which has been specially designed for control of wind turbines. It uses a Woodward Multi function Relay that has three current inputs from CT and three direct voltage inputs (690 Volts). The analog values of current / voltage is converted into digital signal internally using A/D Converters at</i></p>	<p>The DOE noted that the controller meter can’t be removed for calibration as it is an integral part of the woodward relay system.. This was verified from the letter submitted by the Technology Supplier /P01/ and also confirmed during OSV. Furthermore during the OSV, the verification team confirm by interviewing the O & M contractor and Technology Supplier that the same applies for all other WTG’s. Moreover the controller meters are not the basis of share certificate provided by the state utility company. As EGY is monitored from the share certificate, non calibration of the controller meter will not reduce the accuracy of the monitoring plan.</p>

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
		<p>very high sampling rate. A software program reads these values and displays instantaneous parameters such as voltage, current, power factor, kVAh, kVArh and kWh. These instantaneous values are then time integrated and displayed / stored. Woodward relay is having no display and needs special protocol to view energy readings as this relay is communicating digital signal through special communication protocol.</p> <p>Moreover, turbine cannot run without this relay hence it cannot be removed for calibration, hence, it is not possible to calibrate².” and foot note 2: As per letter provided by the technology supplier the inbuilt control panel meters cannot be calibrated.</p>	
Section B.7.2	--	<p>Added para under heading “Records”</p> <p>The above diagram indicates that there are three groups of the WTGs of the project activity, corresponding meters installed at 33 kV metering</p>	The para has been added in the revised monitoring plan for better understanding of the monitoring system.

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.												
		<p>yard³. All the WTGs of (PP + non PP) are connected to the Enercon substation.</p> <p>The list of meter's corresponding to the project activity WTGs have been provided below:</p> <table><tr><th>Location Number of WTGs of project activity</th><th>Meter Serial Number installed at the corresponding 33 kV metering yard</th><th>Meters at 33/220 kV substation</th></tr><tr><td>2082, 2083, 2084, 2118, 2119, 2120</td><td>KAB 107 84</td><td>GJ-073 2-A GJ-073 1-A</td></tr><tr><td>969, 970, 971, 972, 973</td><td>091 415 85</td><td></td></tr><tr><td>2047</td><td>KAB 107 88</td><td></td></tr></table> <p>Foot note 3: Depending on the capacity of the wind farm and considering the future expansion of the wind farm, additional WTGs and corresponding</p>	Location Number of WTGs of project activity	Meter Serial Number installed at the corresponding 33 kV metering yard	Meters at 33/220 kV substation	2082, 2083, 2084, 2118, 2119, 2120	KAB 107 84	GJ-073 2-A GJ-073 1-A	969, 970, 971, 972, 973	091 415 85		2047	KAB 107 88		
Location Number of WTGs of project activity	Meter Serial Number installed at the corresponding 33 kV metering yard	Meters at 33/220 kV substation													
2082, 2083, 2084, 2118, 2119, 2120	KAB 107 84	GJ-073 2-A GJ-073 1-A													
969, 970, 971, 972, 973	091 415 85														
2047	KAB 107 88														

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
		yard meters can be installed, which is beyond the control of the PP.	
Section B.7.2	--	<p><u>Apportioning Procedure for the project activity:</u></p> <p>Net Electricity supplied to grid by the project activity $(EG_y) = (EG_{WTG,y} / EG_{Total\ WTG,y}) \times EG_{y,Total}$</p> <p>Where</p> <p>$EG_{WTG,y}$: Net Electricity supplied by the WTGs of SRPL recorded at 33 kV metering yard.</p> <p>$EG_{Total\ WTG,y}$: Net Electricity supplied by all the WTGs (project activity and non-project activities) connected to 33/220 kV sub-station recorded at 33 kV metering yard.</p> <p>$EG_{y,Total}$: Net Electricity supplied to grid by project as well as non-project activities recorded at the 33/220 kV sub-station.</p>	<p>The para has been added in the revised monitoring plan to transparently demonstrate the apportioning calculation.</p> <p>The validation team has verified the apportion procedure against the confirmation from ENERCON (OEM) regarding the apportioning procedure /P06/.</p>
Section B.7.2	<p>The para under “Internal audits & Performance review”</p> <p>The records are regularly audited and checked by the SRPL Representative from project proponent during their site visit. The SRPL Representative visits once in a year and audit the records. The SRPL Representative will crosscheck the emissions reductions claimed in PDD</p>	<p>The para under “Internal audits & Performance review”</p> <p>The records are regularly audited and checked by the SRPL Representative based upon the daily power generation reports and share</p>	<p>Editorial corrections have been done.</p> <p>Moreover the sentence regarding the qualification has been deleted as the same is already given under the heading “Record Handling:” of the Registered monitoring plan.</p> <p>The correction will not reduce the completeness and the accuracy of the monitoring plan.</p>

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
	with respect to actual emissions reduction. For any deviation from the actual emission reduction values and reported values corrective action will be suggested by SRPL Representative to calculate the conservative emission reduction. All corrective actions will be recorded in the log book. The person taking readings at site are adequately trained and go through training procedures regularly. The above activities will be supervised by the Head, Wind Power project of Sargam Retail Private Limited.	certificates (GETCO/ GEDA/ SLDC (State Load Dispatch Centre) /Authorized representative). The SRPL Representative shall do the internal audit on yearly basis and will crosscheck the emissions reductions estimated in PDD with respect to actual emissions reduction. For any deviation from the actual emission reduction values and reported values corrective action will be suggested by SRPL Representative to calculate the conservative emission reduction. All corrective actions will be recorded and maintained.	
Section B.7.2	<p>The para under “Data Adjustments and Uncertainties”</p> <p>Partial days generation of the Month at 33 KVA metering point (kWh): X</p> <p>Total generation at 33 KV metering point (kWh) for the same month: Y (kWh/month)</p> <p>% Generation for partial days of generation (%): $Z = (X/Y) * 100$</p> <p>Generation as per BULK metering point GETCO generation report for the month (GEDA share report/SLDC): G (kWh/month)</p> <p>Partial days of generation as per GETCO generation report: $(G*Z/100)$</p>	<p>The para under “Data Adjustments and Uncertainties”</p> <p>The following generation apportioning procedure will be followed</p> <p>.....</p> <p>.....</p> <p>..... Report sent to Sargam Retails Pvt. Ltd. from GETCO.</p>	<p>The editorial corrections done were as per the actual practice at the site which was verified during the site visit.</p> <p>The apportioning procedure is removed as a simplified approach to monitoring plan.</p> <p>B.7.1 of the revised monitoring plan in Title “Any Comment” mentioned “<i>In case the monitoring cycle and the billing cycle date do not match, then a conservative approach will be adopted to monitor/calculate the net electricity supplied to the grid.</i>”</p> <p>The revision will not affect the conservativeness of the emission reduction calculation, hence the completeness and the accuracy of</p>

Elements of Comparison	Points in registered MP undergone changes	Proposed changes in revised MP	Assessment by the verification team with the reference of objective evidence, if relevant.
			monitoring plan is not reduced.
Section B.7.2	--	Other update/correction in the monitoring plan under section B.7.2 including correction in the name of O & M contractor.	<p>Validation team checked other update/ correction in the monitoring plan under section B.7.2 and found the same are appropriate. Validation team further confirms that the proposed revision in the monitoring plan does not impact the estimation of emission reductions for the activity. Furthermore more clarity has been given in the monitoring plan regarding the metering points as found during the OSV.</p> <p>Moreover the electrical layout is also updated as per the OSV understanding.</p> <p>The corrections will enhance the clarity, completeness and the accuracy of the monitoring plan.</p>

The assessment of each proposed changes as mentioned in Table (a).1 above in the revised monitoring plan with respect to frequency of measurement (of the monitoring parameters) and calibration requirements and QA/QC procedures (monitoring equipment) are presented in the tabular form as below:

Table (a).2

Monitoring parameter	Impact on frequency of measurement		Monitoring Equipment	Impact on calibration requirements	Impact on QA/QC procedures
EG _y	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/> No impact		Electricity meters (meter at 33 kV metering yard and 220 kV sub-station)	<input checked="" type="checkbox"/> Yes, with explanation: Refer explanation in Table (a).1 <input type="checkbox"/> No impact	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/> No impact
EG _{y,Total}	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/>		Electricity meters (meter at 33 kV metering yard and 220 kV	<input type="checkbox"/> Yes, with explanation:	<input type="checkbox"/> Yes, with explanation:

Monitoring parameter	Impact on frequency of measurement		Monitoring Equipment	Impact on calibration requirements	Impact on QA/QC procedures
	No impact		sub-station)	<input checked="" type="checkbox"/> No impact	<input checked="" type="checkbox"/> No impact
EG _{WTG,y}	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/> No impact		Electricity meters (meter at 33 kV metering yard and 220 kV sub-station)	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/> No impact	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/> No impact
EG _{Total WTG,y}	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/> No impact		Electricity meters (meter at 33 kV metering yard and 220 kV sub-station)	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/> No impact	<input type="checkbox"/> Yes, with explanation: <input checked="" type="checkbox"/> No impact

(b) Accordance with approved monitoring methodology

- ☒ TUV Rheinland herewith confirms that the proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity.

The project activity was registered on 11/11/2010 under version 15 of AMS-I.D., which is also the basis of first periodic verification. The proposed revised monitoring plan does not apply the latest version of AMS-I.D., however, correctly follows the applied methodology i.e. AMS-I.D. version 15 at the time of registration.

Nevertheless, the compliance of revised monitoring plan with monitoring methodology, i.e., § 17 of version 15 of AMS-I.D is demonstrated as below:

§ reference of Methodology	Requirements methodology (AMS.I.D, version 15)	Assessment of compliance
§17 (Monitoring)	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. Hourly measurement and monthly recording are required.	<p>The parameter that needs to be monitored as per the methodology is the net electricity supplied by the project activity to the grid.</p> <p>The net electricity supplied by the project activity to the grid is calculated based on the measured parameters (metered by the help of meters at 33 kV metering yard and 220 kV sub-station) as defined in section B.7 of the revised monitoring plan.</p> <p>As per the revised monitoring plan, the Monitoring parameter Net Electricity supplied to</p>

§ reference of Methodology	Requirements of methodology (AMS.I.D, version 15)	Assessment of compliance
		<p>grid, (EG_y) as mentioned in Share certificate issued by GETCO/ GEDA/ SLDC (State Load Dispatch Centre)/ Authorized representative will be cross-checked with the invoices raised by the PP for the project activity.</p> <p>Moreover the input electricity data is continuously measured and monthly recorded. So the monitoring parameter (EG_y) can be assumed to be continuously measured and monthly recorded and thus complying the para “Hourly measurement and monthly recording are required” of the applied methodology AMS-I.D. version 15.</p> <p>Validation team confirms that monitoring plan is in compliance with this paragraph of the applied methodology. This has been verified from the site visit and checked through documents review submitted by the PP.</p>
§18 (Monitoring)	For projects where only biomass or biomass and fossil fuel are used the amount of biomass and fossil fuel input shall be monitored.	Not applicable since the project activity is not a biomass or biomass and fossil fuel based power plant.
§19 (Monitoring)	For projects consuming biomass a specific fuel consumption of each type of fuel (biomass or fossil) to be used should be specified ex ante. The consumption of each type of fuel shall be monitored.	Not applicable since the project activity is not a biomass or biomass and fossil fuel based power plant.
§20 (Monitoring)	If fossil fuel is used, the electricity generation metered should be adjusted by deducting the electricity generation from fossil fuels using the specific fuel consumption and the quantity of fossil fuel consumed.	Not applicable since the project activity is not a biomass or biomass and fossil fuel based power plant.
§21 (Monitoring)	If more than one type of biomass fuel is consumed each shall be monitored separately.	Not applicable since the project activity is not a biomass or biomass and fossil fuel based power plant.
§22 (Monitoring)	The amount of electricity generated using biomass fuels calculated as per paragraph 20 shall be compared with the amount of electricity generated	Not applicable since the project activity is not a biomass or biomass and fossil fuel based power plant.

§ reference of Methodology	Requirements of methodology (AMS.I.D, version 15)	Assessment of compliance
	calculated using specific fuel consumption and amount of each type of biomass fuel used. The lower of the two values should be used to calculate emission reductions.	

(c) Previous verification findings

- ☒ TUV Rheinland herewith confirms that the findings of previous verification reports, if any, have been taken into account.
- ☐ No findings from previous verifications had to be considered.

No previous verification has been done. Hence this criteria is not applicable.

Reference of Objective Evidence:

Documents provided by the project participant(s):

Reference	Documents
/P01/	Letter by Enercon (dated: 07/08/2011) regarding the calibration of the controller meter.
/P02/	Letter from GETCO dated 29/01/2011 regarding the calibration of the meters (33 kV meter and the 220 kV substation meter).
/P03/	Monthly Share certificate corresponding to the WTGs of the project activity.
/P04/	Invoice raised by PP to state utility duly acknowledged by state utility.
/P05/	Revised monitoring plan dated 25 April 2012
/P06/	Confirmation from ENERCON (OEM) regarding the apportioning procedure.

Background investigation and other referred documents/websites:

Reference	Document
/B01/	Approved CDM Methodology AMS-I.D. version 15: "Grid connected renewable electricity generation"
/B02/	Kyoto Protocol (1997)
/B03/	Decision 3/CMP.1, Decision 4/CMP.1 and Decision 1/CMP.2, paragraph 28

Reference	Document
/B04/	Registered PDD for CDM project “Wind Power Project by Sargam Retails Pvt. Ltd. in Gujarat, India”, (Registered on 11/11/2010) UNFCCC Project ref. no. 3724.
/B05/	Validation Report for CDM project “Wind Power Project by Sargam Retails Pvt. Ltd. in Gujarat, India” issued by SGS United Kingdom Limited (SGS).
/B06/	CDM Validation and Verification Manual (Version 01.2 as per EB 55 annex 01)
/B07/	Procedure for revising monitoring plans in accordance with para 57 of the Modalities and Procedures for the CDM, Annex 28 of EB 49
/B08/	Websites referred <ul style="list-style-type: none">• http://cdm.unfccc.int/index.html

Qualification

Jana, Asim Kumar /

Emission Trading

United Nations Framework Convention on Climate Change

Auditor No.:

(AuditorenRegNr)

Appointed:
(Zugelassen)

☒ ja

Qualification Level:
(Qualifikationsstufe)

External:
(Externer)

☐ ja

Add. reviewer:
(Zusätzlicher Prüfer)

☐ yes

EAC Scopes:
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)
CDM 03 - Energy demand
CDM 04 - Manufacturing industries
CDM 12 - Solvents use
CDM 02 - Energy distribution
CDM 11 - Fugitive emissions from production and consumption of
halocarbons and sulphur hexafluoride
CDM 13 - Waste handling and disposal
CDM 05 - Chemical industry

Add. qualification:
(zus. Qualifikation)

First Appointment:
(Erstberufung)

06/01/2009

Valid to:
(Gültig bis)

05/31/2012

Remarks:

2010-10: revised to meet Accreditation Standard Ver.02:
- CDM 01: valid for TA1.1, 1.2
- CDM 02: valid for TA2.1, 2.2
- CDM 03: valid for TA3.1
- CDM 04: valid for TA4.5 - Other WHR and Fuel switch projects
- CDM 05/11/12: valid for TA5.1 / 11.1 / 12.1
- CDM 13: valid for TA13.1 - Waste handling and disposal

Languages:

Hindi
English

Experience Exchange

Date

Location

Remarks

Accreditation(s)

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next Monitoring:
(nächste Beurteilung)

Remarks:

History of scope allocation

Date: 2009-06-03
Change: EAC CDM, CDM, CDM, CDM added
By: Manfred Brinkmann
Reason: scope 4 limited to fuel switch

History

Created:	04/21/2009 07:24:07 PM	Asim Kumar Jana/Ind/TUV
Modified:	01/06/2011 12:03:30 PM ZE9	Manfred Brinkmann/Jpn/TUV
	01/06/2011 11:55:54 AM ZE9	Manfred Brinkmann/Jpn/TUV
	09/12/2010 06:07:27 PM ZE9	Manfred Brinkmann/Jpn/TUV

Qualification

Deka, Raj Kumar /

Emission Trading

United Nations Framework Convention on Climate Change

Auditor No.:

(AuditorenRegNr)

Appointed:
(Zugelassen)☒ jaQualification Level:
(Qualifikationsstufe)

Lead Auditor

External:
(Externer)☐ jaAdd. reviewer:
(Zusätzlicher Prüfer)☐ yesEAC Scopes:
(EAC Branchen)CDM 01 - Energy industries (renewable - / non-renewable sources)
CDM 02 - Energy distribution
CDM 03 - Energy demandAdd. qualification:
(zus. Qualifikation)First Appointment:
(Erstberufung)

10/23/2010

Valid to:
(Gültig bis)

10/22/2013

Remarks:

CDM 01: limited to TA 1.2 (Renewable Energies)
CDM 02: incl. TA 2.1, 2.2
CDM 03: incl. TA 3.1

Languages:

Hindi
English

Experience Exchange

Date

Location

Remarks

Accreditation(s)

Monitoring

Latest Monitoring:
(letzte Beurteilung)Next Monitoring:
(nächste Beurteilung)

Remarks:

History of scope allocation

Date:
Change:
By:
Reason:

Date:
Change:
By:
Reason:

Date: 2010-10-24
Change: EAC CDM, CDM, CDM added
By: Manfred Brinkmann
Reason: CDM 01: limited to TA 1.2 (Renewable Energies)

History

Created:	07/02/2008 10:58:00 PM ZE9	Manfred Brinkmann/Jpn/TUV
Modified:	10/24/2010 11:27:19 AM ZE9	Manfred Brinkmann/Jpn/TUV
	10/24/2010 11:27:13 AM ZE9	Manfred Brinkmann/Jpn/TUV
	10/24/2010 11:26:55 AM ZE9	Manfred Brinkmann/Jpn/TUV
	07/02/2008 10:58:29 PM ZE9	Manfred Brinkmann/Jpn/TUV

Qualification

Singh, Vikash Kumar /

Emission Trading

United Nations Framework Convention on Climate Change

Auditor No.:
(AuditorenRegNr)

Appointed:
(Zugelassen)

☒ ja

Qualification Level:
(Qualifikationsstufe) Auditor

External:
(Externer)

☐ ja

Add. reviewer:
(Zusätzlicher Prüfer) ☐ yes

EAC Scopes:
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)
CDM 03 - Energy demand

Add. qualification:
(zus. Qualifikation)

First Appointment:
(Erstberufung)

10/27/2011

Valid to:
(Gültig bis)

10/26/2014

Remarks:

Valid for TA 1.2, 3.1

Languages:

Hindi
English

Experience Exchange

Date

Location

Remarks

Accreditation(s)

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next Monitoring:
(nächste Beurteilung)

Remarks:

History of scope allocation

Date:

2011-10-28

Change: EAC CDM, CDM added
By: Manfred Brinkmann
Reason:

History

Created:	05/26/2011 05:03:47 PM	Vikash Kumar Singh/Ind/TUV
Modified:	11/27/2011 07:30:37 PM ZE9	Manfred Brinkmann/Jpn/TUV
	10/28/2011 10:23:54 PM ZE9	Manfred Brinkmann/Jpn/TUV
	05/26/2011 05:04:57 PM	Vikash Kumar Singh/Ind/TUV

Qualification

Li, Lixin /

Emission Trading**United Nations Framework Convention on Climate Change**

Auditor No.:

(AuditorenRegNr)

Appointed:

(Zugelassen)

☒ ja

Qualification Level:

(Qualifikationsstufe)

External:

(Externer)

☐ ja

Add. reviewer:

(Zusätzlicher Prüfer)

☒ yes

EAC Scopes:

(EAC Branchen)

CDM 01 – Energy industries (renewable – / non-renewable sources)
CDM 03 – Energy demand

Add. qualification:

(zus. Qualifikation)

First Appointment:

(Erstberufung)

2010/09/07

Valid to:

(Gültig bis)

2013/09/06

Remarks:

Appointed as Technical Reviewer for
TA 1.1, 1.2
TA 3.1

Languages:

Experience Exchange

Date

Location

Remarks

Accreditation(s)

Monitoring

Latest Monitoring:

(letzte Beurteilung)

Next Monitoring:

(nächste Beurteilung)

Remarks:

[View / Edit Monitoring](#)**History of scope allocation**

Date:

Change:

By:

Reason:

Date:

Change:

By:

Reason:

Date: 2010-11-08
Change: EAC CDM, CDM added
By: Manfred Brinkmann
Reason: Appointed as Technical Reviewer for

History

Created:	2010/08/13 11:09:24 ZE8	Lixin Li/Bj/Chn/TUV
Modified:	2010/11/08 09:28:17	Manfred Brinkmann/Jpn/TUV
	2010/11/08 09:28:07	Manfred Brinkmann/Jpn/TUV
	2010/11/08 09:27:39	Manfred Brinkmann/Jpn/TUV
	2010/08/13 11:09:41 ZE8	Lixin Li/Bj/Chn/TUV