

GREEN ENERGY PROJECT AT KUTCH BY POWERICA LIMITED



A Promise For Power

Document Prepared By

POWERICA LIMITED

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Monitoring Period	14-Jul-2011 to 21-Oct-2012
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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The project activity involves commissioning and operation of a 21.6 MW wind power generation project at Bhachau, in the Kutch district of Gujarat by Powerica Ltd. The total installed capacity of 21.6 MW comprises of 12 WTGs, each with a capacity of 1.80 MW. The project provides electricity to the state of Gujarat by effective utilization of renewable resources. The technology has been supplied by Vestas. The project utilizes wind energy for exporting electricity which otherwise would have been generated through alternate fuels (most likely - fossil fuel) based power plants, contributing to reduction in specific emissions (emissions of pollutant) including GHG emissions. Electricity produced from the project activity is supplied to NEWNE grid of India.

The technical details of the WTGs involved in the project activity are as below.

Parameters	Value	Unit	Source/Reference
Make	-	Vestas	Supply agreement signed with Technology Supplier, Vestas
Model	-	V100	-do-
Rated Power	1800	kW	-do-
Rotor diameter	100	m	-do-
Swept area	7850	m ²	-do-
No. of Blades	3	-	-do-
Cut in wind speed	4	m/s	Technical specification for WTG model V 100 available at Vestas' official website ¹
Cut out wind speed	20	m/s	Technical specification for WTG model V 100 available at Vestas' official website
Hub Height	95	m	Supply agreement signed with Technology Supplier, Vestas
Generator Type	Asynchronous, with wound rotor, slip rings	-	Supply agreement signed with Technology Supplier, Vestas

All the WTGs involved in the project activity are already commissioned and operational. The WTGs are under operation since the date of commissioning and no event has been identified which may impact GHG emission reduction. The commissioning dates of all the WTGs are provided as below.

¹ http://www.vestas.com/Files/Filer/EN/Brochures/090721_Product-brochure_V_100-1.8MW-042009-EN.pdf

WTG ID	WTG No.	Date of Commissioning
VW 21	VWT/1800/11-12/2133	19-July-2011
VW 32	VWT/1800/11-12/2134	16-July-2011
NM82-4	VWT/1800/11-12/2135	14-July-2011
JW 27	VWT/1800/11-12/2136	16-July-2011
NM 82-3	VWT/1800/11-12/2309	29-Dec-2011
JW 30 New	VWT/1800/11-12/2316	31-Dec-2011
NM 82 07	VWT/1800/11-12/2311	29-Dec-2011
JW 09	VWT/1800/11-12/2312	31-Dec-2011
JW 10	VWT/1800/11-12/2313	31-Dec-2011
JW 12	VWT/1800/11-12/2314	31-Dec-2011
JW 13	VWT/1800/11-12/2315	31-Dec-2011
NM 82 06	VWT/1800/11-12/2310	29-Dec-2011

Summary of GHG emission reduction is tabulated as below;

Vintage	EG _{PG,y} (MWh)	ER _y (tCO ₂)
2011	5,738	5,443
2012	50,378	47,788
Total		53,231

1.2 Sectoral Scope and Project Type

Sectoral Scope 01: Energy Industries (renewable/non-renewable sources.)

Technical area: 1.2 Renewable Energy (Wind)

This is not a grouped project.

1.3 Project Proponent

Organization name	Powerica Limited
Contact person	Mr. Qazi Aamir
Title	(General Manager - Wind Div.)
Address	Godrej Coliseum, 9th flr., C wing, Sion-Trombay Road, Sion (E), Mumbai 400022, India
Telephone	(+91-22) 4001-2673
Email	aamir.qazi@powericaltd.com

1.4 Other Entities Involved in the Project

No other project participant is involved in the project.

1.5 Project Start Date

14-July-2011 (This is the commissioning date of the earliest commissioned WTGs involved in the project activity)

1.6 Project Crediting Period

The project is registered under CDM and applying for pre-CDM VCS verification since commission date till the start date of crediting period of the project under CDM. The earliest commissioning date of the WTG involved in the project is 14-July-2011 and start date of crediting period under CDM is 22-Oct-2012.

Thus,

The crediting period (for VCS): 14-July-2011 to 21-Oct-2012

Length of crediting period (for VCS): 465 days

1.7 Project Location

The detail information on the WTG locations along with their individual geographical co-ordinates is provided below.

WTG	HTSC No.	Village	District and State	Latitude (°N)	Longitude (°E)
VW 21	VWT/1800/11-12/2133	Vandhiya	Kutch, Gujarat	23° 12' 20"	70° 37' 30"

VW 32	VWT/1800/11-12/2134	Vandhiya	Kutch, Gujarat	23 ⁰ 12' 12"	70 ⁰ 37' 12"
NM82-4	VWT/1800/11-12/2135	Vandhiya	Kutch, Gujarat	23 ⁰ 12' 5"	70 ⁰ 35' 19"
JW 27	VWT/1800/11-12/2136	Jangi	Kutch, Gujarat	23 ⁰ 12' 49"	70 ⁰ 33' 35"
NM 82-3	VWT/1800/11-12/2309	Vandhiya	Kutch, Gujarat	23 ⁰ 11' 53"	70 ⁰ 35' 26"
JW 30New	VWT/1800/11-12/2316	Jangi	Kutch, Gujarat	23 ⁰ 11' 59"	70 ⁰ 31' 55"
NM 82 07	VWT/1800/11-12/2311	Vandhiya	Kutch, Gujarat	23 ⁰ 11' 53"	70 ⁰ 35' 58"
JW 09	VWT/1800/11-12/2312	Jangi	Kutch, Gujarat	23 ⁰ 12' 3"	70 ⁰ 33' 2"
JW 10	VWT/1800/11-12/2313	Jangi	Kutch, Gujarat	23 ⁰ 11' 56"	70 ⁰ 32' 48"
JW 12	VWT/1800/11-12/2314	Jangi	Kutch, Gujarat	23 ⁰ 12' 29"	70 ⁰ 32' 13"
JW 13	VWT/1800/11-12/2315	Jangi	Kutch, Gujarat	23 ⁰ 12' 12"	70 ⁰ 32' 16"
NM 82 06	VWT/1800/11-12/2310	Vandhiya	Kutch, Gujarat	23 ⁰ 11' 59"	70 ⁰ 35' 47"

1.8 Title and Reference of Methodology

Title	Consolidated baseline methodology for grid-connected electricity generation from renewable sources
Reference	ACM0002
Version number	12.3.0

1.9 Other Programs

- Emission Trading Programs and Other Binding Limits: The WTGs included in the Project are located at Gujarat state of India. India, as a non Annex 1 country to Kyoto Protocol, is not

bound by the protocol or neither have any national caps or trading scheme wherein renewable project like this can participate in trading of emission certificate

- Other Forms of Environmental Credit: The project is only registered under Clean Development Mechanism (CDM) standard of UNFCCC (Ref. No: 7671) and has not sought or received another form of GHG-related environmental credit, including renewable energy certificates. The project is neither rejected under any other GHG-related environmental credit and the related program. A declaration for this is submitted to the DoE.
- Participation under Other GHG Programs: As stated above, the project is registered under Clean Development Mechanism (CDM) standard of UNFCCC and not seeking registration under any other GHG program. The UNFCCC reference number of the project is 7671.

2 IMPLEMENTATION STATUS

2.1 Implementation Status of the Project Activity

All the WTGs involved in the project activity are already commissioned and operational. The WTGs are under operation since the date of commissioning and no event has been identified which may impact GHG emission reduction. The commissioning dates of all the WTGs are provided as below.

WTG ID	WTG No.	Date of Commissioning
VW 21	VWT/1800/11-12/2133	19-July-2011
VW 32	VWT/1800/11-12/2134	16-July-2011
NM82-4	VWT/1800/11-12/2135	14-July-2011
JW 27	VWT/1800/11-12/2136	16-July-2011
NM 82-3	VWT/1800/11-12/2309	29-Dec-2011
JW 30New	VWT/1800/11-12/2316	31-Dec-2011
NM 82 07	VWT/1800/11-12/2311	29-Dec-2011
JW 09	VWT/1800/11-12/2312	31-Dec-2011
JW 10	VWT/1800/11-12/2313	31-Dec-2011
JW 12	VWT/1800/11-12/2314	31-Dec-2011
JW 13	VWT/1800/11-12/2315	31-Dec-2011
NM 82 06	VWT/1800/11-12/2310	29-Dec-2011

2.2 Deviations

2.2.1 Methodology Deviations

There is deviation to the applied methodology noticed during the current monitoring period which may impact the quantification of GHG emission.

2.2.2 Project Description Deviations

There is no deviation in the project description; all the WTGs are commissioned and operational as it has been defined in the registered PDD.

2.3 Grouped Project

This is not a grouped project, hence this is not applicable.

3 DATA AND PARAMETERS

3.1 Data and Parameters Available at Validation

Data Unit / Parameter:	EF _{grid,CM,y}
Data unit:	tCO ₂ /MWh
Description:	Combined Margin Grid emission factor
Source of data:	CEA website Version :06 (Valid from 1st March 2011)
Value applied:	0.9486
Justification of choice of data or description of measurement methods and procedures applied	No measurement method has been applied; the value has been directly sourced from the registered CDM PDD.
Purpose of the data:	Baseline emission calculation
Comment:	No comment

Data Unit / Parameter:	EF _{grid,OM,y}
Data unit:	tCO ₂ /MWh
Description:	Weighted average of 3 years (2007-08, 2008-09, 2009-10) CO ₂ Operating Margin emission factor of the grid
Source of data:	CEA website Version :06 (Valid from 1st March 2011)
Value applied:	0.9941
Justification of choice of data or	No measurement method has been applied; the

description of measurement methods and procedures applied	value has been directly sourced from the registered CDM PDD.
Purpose of the data:	Baseline emission calculation
Comment:	No Comment

Data Unit / Parameter:	$EF_{grid, BM, y}$
Data unit:	tCO ₂ /MWh
Description:	CO ₂ Built Margin emission factor of the grid
Source of data:	CEA website Version :06 (Valid from 1st March 2011)
Value applied:	0.8123
Justification of choice of data or description of measurement methods and procedures applied	No measurement method has been applied; the value has been directly sourced from the registered CDM PDD.
Purpose of the data:	Baseline emission calculation
Comment:	No Comment

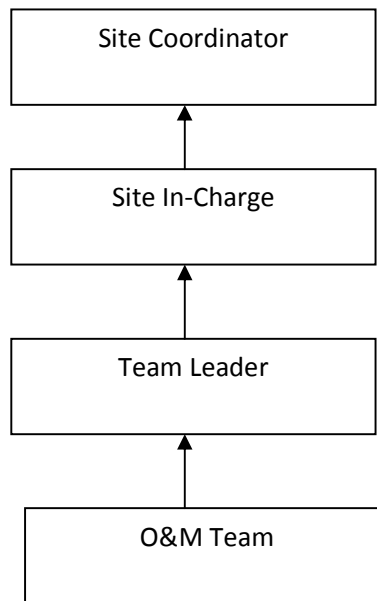
3.2 Data and Parameters Monitored

Data Unit / Parameter:	$EG_{facility, y}$
Data unit:	MWh
Description:	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y
Source of data:	Certificate for share of electricity generated by the State Electricity Board
Description of measurement methods and procedures to be applied:	<p><u>Monitoring equipments:</u> Electrical Energy Meters.</p> <p><u>Data type:</u> Measured & Calculated</p> <p><u>Archiving:</u> Paper & Electronic</p> <p><u>Responsibility:</u> The O&M site-in-charge shall be responsible for the regular recording of data.</p> <p><u>Energy meters:</u></p> <p><u>Serial number:</u> Please refer appendix-1.</p> <p><u>Accuracy class:</u> 0.2s of the meter at respective substations that are used for the exported electricity metering. 0.5s of the meter at</p>

	<p>respective WTG yards that would be used for the electricity metering.</p> <p><u>Calibration:</u> The meters are calibrated once every year. Please refer appendix-1 for calibration details of the energy meters.</p>								
Frequency of monitoring/recording:	Continuous measurement and at least monthly recording								
Value monitored:	<table border="1"> <thead> <tr> <th>Vintage (Year)</th> <th>Value (MWh)</th> </tr> </thead> <tbody> <tr> <td>2011</td> <td>57,38</td> </tr> <tr> <td>2012</td> <td>50,378</td> </tr> <tr> <td>Total</td> <td>56,116</td> </tr> </tbody> </table>	Vintage (Year)	Value (MWh)	2011	57,38	2012	50,378	Total	56,116
Vintage (Year)	Value (MWh)								
2011	57,38								
2012	50,378								
Total	56,116								
Monitoring equipment:	The details of the energy meters used are provided in appendix-1.								
QA/QC procedures to be applied:	The Quantity of net electricity generation from the certificates for share of electricity are cross-checked with the invoices for the sale of power by Powerica. The Energy Meters are calibrated once every year.								
Purpose of the data	Calculation of baseline emissions.								
Calculation method:	NA								
Comment:	NA								

3.3 Monitoring Plan

Since the baseline emission factor is based on an ex-ante determination, monitoring of this parameter is not required. The sole parameter for monitoring is the electricity exported to the grid. The Project is operated and managed by Vestas Wind Technology India Private Limited (Vestas). Vestas has a designated Site-In-Charge (O&M) on site who is responsible for monitoring the electricity exported from the project activity. The organizational structure of the O&M team by Vestas is as follows:



The roles and responsibilities of the O&M team may be elaborated as follows:

O&M Team: The team comprises of site engineers who are directly responsible for carrying out the O & M activity of WTG. They execute the preventive maintenance and attend to break downs as per O&M Manual & Procedures. They respond to breakdown calls and resolve customer complaints. They record all the readings and prepare documentations for Reports, Logs and Daily Generation Reports.

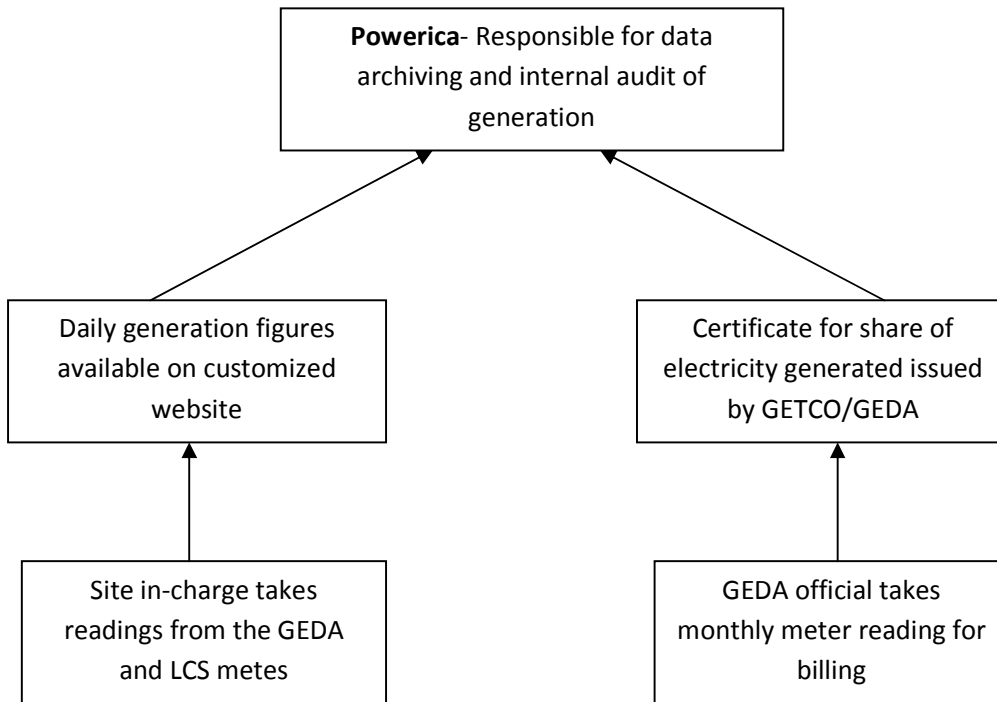
Team Leader: He leads the O&M team and is responsible for attending to the unscheduled breakdown of WTGs and for ensuring that WTG should be restored at earliest. He ensures the proper reading, recording and monitoring of the Generation.

Site-Incharge: He is responsible for the entire site. He has to take timely corrective measures/action to ensure that overall performance of site is met and delivered. He is responsible for the individual site. He executes the preventive maintenance and attends to break downs as per O&M Manual & Procedures. He also checks the daily Generation reports for all the WTGs.

Site Co-ordinator: He is in-charge of overall O&M activities of site. The responsibilities include ensuring complete documentation of the Generation of the site, on-time service delivery, timely response to breakdowns and efficient manpower management for the site.

Further, all new technicians on site are trained by Vestas. Also, the O&M personnel are trained regularly in order to improve their technical skills.

The overall flow of information has been depicted using the following hierarchical structure:



Monitoring Process at Site:

Metering of wind power is done at site as under:

- Joint meter reading is taken at Vandhiya substation meter by representative of GETCO (Gujarat Electricity Transmission Company) and O&M service provider (on behalf of individual wind farm owners). The check meters are located in the sub-station yard. Let the total generation recorded for particular month is 'X' units in sub-station meter.
- Joint meter reading is taken at Local Meter-(transformer yard meter of each WTG) by representative of GETCO (Gujarat Electricity Transmission Company) and O&M service provider (on behalf of individual wind farm owners). Let us assume total generation of Powerica recorded for particular month is 'Y1' units.
- Similarly joint meter reading for other wind farm owners is also taken. Let the generation of individual owner recorded for particular month are 'Y2, Y3,.....Yn' units.

- GETCO distributes 'X' to individual wind farm owners using following formula and issues monthly certificates.

$$\text{Net units calculated for billing} = X * Y_i / \Sigma Y_n$$

- For Powerica, net units calculated for billing = $X * Y_1 / \Sigma Y_n$
- It must be noted here that the meter readings as mentioned above are calculated as the product of meter multiplication factor and the difference of the current and previous meter readings

4 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

4.1 Baseline Emissions

The baseline emissions are calculated using the following formula

$$\text{Baseline Emissions (BE}_y) = EF_{\text{Grid,CM,y}} \times EG_{\text{PG,y}}$$

Where,

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

The monthly monitored values of the parameter, $EG_{\text{PG,y}}$ are as below,

Months	7.2 MW ²	After applying calibration/accuracy error ³	14.4 MW ⁴	After applying calibration/accuracy error ⁵	Total
Jul-11	553.984	551.214	0.000	NA	551.214
Aug-11	1,649.140	1,640.894	0.000	NA	1,640.894
Sep-11	1,041.014	1,035.809	0.000	NA	1,035.809
Oct-11	732.918	729.253	0.000	NA	729.253
Nov-11	575.658	572.780	0.000	NA	572.780
Dec-11	1,008.632	1,003.589	205.942	204.912	1,208.501
Jan-12	1,007.960	1,002.920	1,938.778	1,929.084	2,932.004
Feb-12	1,092.213	1,088.936	2,269.196	2,262.388	3,351.325
Mar-12	1,105.033	1,101.718	2,197.890	2,191.296	3,293.014
Apr-12	1,311.918	1,307.982	2,562.901	2,555.212	3,863.195
May-12	2,528.531	2,520.945	5,337.052	5,321.041	7,841.986
Jun-12	2,989.669	2,965.752	6,305.131	6,286.216	9,251.967
Jul-12	2,865.228	2,856.632	6,055.481	6,037.315	8,893.947
Aug-12	2,193.535	2,186.954	4,727.871	4,713.687	6,900.642
Sep-12	912.564	909.826	1,922.140	1,916.374	2,826.200
Oct-12 ⁶	-	NA	-	NA	1,223.313
Total					56,116

² This phase was commissioned in July 2011.

³ Since calibration of some energy meter was not valid for some intervals, in line with Clean development mechanism project standard, version 05.0, maximum permissible error of the energy meters is applied in the readings during which calibration was not valid. Maximum error has been applied as the errors observed during the post calibration were within maximum permissible errors of the energy meters.

⁴ This phase was commissioned in Dec 2011.

⁵ Since calibration of some energy meter was not valid for some intervals, in line with Clean Development Mechanism project standard, version 05.0, maximum permissible error of the energy meters is applied in the readings during which calibration was not valid. Maximum error has been applied as the errors observed during the post calibration were within maximum permissible errors of the energy meters. Further, as per registered CDM PDD, the accuracy class of the energy meters should have been 0.2S where as the accuracy class of the energy meters used at WTG yard is 0.5S. Therefore, in accordance with paragraph 4(a) of appendix-1, of Clean Development Mechanism project standard, version 05.0, the measured values are adjusted to account the difference in accuracy class i.e. $0.5 - 0.2 = 0.3$.

⁶ Generation is considered till 21 Oct 2012 as the crediting period of the project under CDM starts since 22 Oct 2012.

This is to be noted that the monthly electricity share of certificate for the month of October 2012 considers the reading till 31st October 2012 while the crediting period for this pre-CDM VCS verification is till 21st October 2012. Thus, alternative approach has been adopted by the project proponent to account the reading for the duration 1st October 2012 to 21st October 2012. The approach has been demonstrated to be appropriate and conservative by the project proponent. The alternative calculation approach has been incorporated in appendix-2 of the report.

$EF_{Grid,CM,y}$: Combined Margin Grid emission factor (tCO₂/MWh) which has been fixed ex-ante in the registered CDM PDD.

Therefore, $EF_{Grid,CM,y} = 0.9486$ tCO₂/MWh

Vintage wise baseline emission is thus calculated as below;

Vintage	$EG_{PG,y}$ (MWh)	$EF_{Grid,CM,y}$ (tCO ₂ /MWh)	BE_y (tCO ₂) $EF_{grid,CM,y} \times EG_{facility,y}$ (Rounded down)
2011	5,738	0.9486	5,443
2012	50,378		47,788
TOTAL			53,231

4.2 Project Emissions

Project Emissions for the project activity are zero.

Hence, $PE_y = 0$

4.3 Leakage

The project proponents have identified no anthropogenic greenhouse gases by sources outside the project boundary that are significant, measurable and attributable to the project activity. Hence, no leakage is considered from the project activity.

Hence, $LE_y = 0$

4.4 Net GHG Emission Reductions and Removals

Summary of GHG emission reduction is tabulated as below;

Vintage	$EG_{PG,y}$ (MWh)	$EF_{Grid,CM,y}$ (tCO ₂ /MWh)	BE_y (tCO ₂)	PE_y (tCO ₂)	LE_y (tCO ₂)	ER_y (tCO ₂)
2011	5,738	0.9486	5,443	0	0	5,443
2012	50,378		47,788	0	0	47,788
Total						53,231

APPENDIX 1: DETAIL OF THE ENERGY METERS USED

WTG LOCATION METERS ⁷								
WTG	Meter Serial No. ⁸	1st Calibration	Meter Change? If yes, new meter serial No.	If Yes, date of meter change	2nd Calibration	Duration in which calibration was not valid	Meter Change? If yes, new meter serial No.	If Yes, date of meter change
JW 27	GJU618 47	07/06/2011 (Valid till 06/06/2012)	NO	-	11/06/2012 (Valid till 10/06/2013)	07/06/2012 to 10/06/2012	NO	-
NM 04	GJU618 52	07/06/2011 (Valid till 06/06/2012)	NO	-	11/06/2012 (Valid till 10/06/2013)	07/06/2012 to 10/06/2012	NO	-
VW 21	GJU618 44	07/06/2011 (Valid till 06/06/2012)	NO	-	11/06/2012 (Valid till 10/06/2013)	07/06/2012 to 10/06/2012	NO	-
VW 32	GJU618 45	07/06/2011 (Valid till 06/06/2012)	NO	-	11/06/2012 (Valid till 10/06/2013)	07/06/2012 to 10/06/2012	NO	-
NM 03	GJU641 51	28/11/2011 (Valid till 27/11/2012)	NO	-	13/12/2012 (Valid till 12/12/2013)	28/11/2012 to 12/12/2012	NO	-

⁷ The accuracy class of all the WTG location meter (main) is 0.5S.

⁸ Since the main energy meters were working properly during monitoring period and readings are only considered from main energy meters, details of check meters are not provided.

NM 06	GJU641 50	28/11/2011 (Valid till 27/11/2012)	NO	-	13/12/2012 (Valid till 12/12/2013)	28/11/20 12 to 12/12/20 12	NO	-
NM 07	GJU641 54	28/11/2011 (Valid till 27/11/2012)	NO	-	13/12/2012 (Valid till 12/12/2013)	28/11/20 12 to 12/12/20 12	NO	-
JW 09	GJU641 45	28/11/2011 (Valid till 27/11/2012)	NO	-	13/12/2012 (Valid till 12/12/2013)	28/11/20 12 to 12/12/20 12	NO	-
JW 10	GJU641 74	28/11/2011 (Valid till 27/11/2012)	NO	-	13/12/2012 (Valid till 12/12/2013)	28/11/20 12 to 12/12/20 12	NO	-
JW 12	GJU641 52	28/11/2011 (Valid till 27/11/2012)	NO	-	13/12/2012 (Valid till 12/12/2013)	28/11/20 12 to 12/12/20 12	NO	-
JW 13	GJU641 46	28/11/2011 (Valid till 27/11/2012)	NO	-	13/12/2012 (Valid till 12/12/2013)	28/11/20 12 to 12/12/20 12	NO	-
JW 30	GJU641 65	28/11/2011 (Valid till 27/11/2012)	NO	-	13/12/2012 (Valid till 12/12/2013)	28/11/20 12 to 12/12/20 12	NO	-

SUB STATION METERS ⁹						
Location	Serial No	1st Calibration	1st calibration due date	2nd Calibration	Duration in which calibration was not valid	2nd calibration due date
Vandhya 220 kV-Line-1	GJ-0670-A	15/10/2009	14/10/2010	17/01/2012	15/10/2010 to 16/01/2012	16/01/2013
Vandhya 220 kV-Line-2	GJ-0671-A	15/10/2009	14/10/2010	17/01/2012	15/10/2010 to 16/01/2012	16/01/2013

⁹ The accuracy class of the substation meter is 0.2S.

APPENDIX 2: CALCULATION APPROACH FOR THE MONTH OF OCT'2012

Sr	Data	Notation	Value(MWh)
1	Total Generation for the month of Oct'2012 (01/10/2012 to 31/10/2012) as per electricity share certificate	A	1631
2	Total Generation for the month of Oct'2012 (01/10/2012 to 31/10/2012 recorded from LCS meter) as per performance sheet provided by VESTAS	B	1668
3	Generation for the duration 01/10/2012 to 21/10/2012 (recorded from LCS meter) as per performance sheet provided by VESTAS	C	1264
4	Transmission loss between 33 kV transformer yard (WTG) and substation for the entire month of Oct'2012	B-A	37
5	Net Generation considered for ER calculation for the duration 01/10/2012 to 21/10/2012	C-(B-A)	1227

Note: Transmission loss between 33 kV transformer yard (WTG) and substation for the entire month of Oct'2012 has been deducted to consider generation till 21st October 2012 which is the most conservative.

APPENDIX 3: LIST OF ABBREVIATIONS

ACM	Approved Consolidated Methodology
CDM	Clean Development Mechanism
CO2	Carbon Dioxide
ER	Emission Reduction
GEDA	Gujarat Energy Development Agency
GETCO	Gujarat Energy Transmission Corporation Limited
GHG	Green House Gas/ses
kV	Kilo Volt
kW	Kilo Watt Hour
LCS	Local Control System
MR	Monitoring Report
MWh	Mega Watt Hour
NEWNE	Northern, Eastern, Western and North-Eastern grids
PD	Project Description
PDD	Project Design Document
SLDC	State Load Dispatch Centre
UNFCCC	United Nation Framework Convention on Climate Change
VCS	Verified Carbon Standard
WTG	Wind Turbine Generator