CLEAN DEVELOPMENT MECHANISM
PROJECT DESIGN DOCUMENT FORM (CDM-SSC-PDD)
Version 03 - in effect as of: 22 December 2006

CONTENTS

Revision history of this document

Version Number	Date	Description and reason of revision
01	21 January 2003	Initial adoption
02	8 July 2005	• The Board agreed to revise the CDM SSC PDD to reflect guidance and clarifications provided by the Board since version 01 of this document. • As a consequence, the guidelines for completing CDM SSC PDD have been revised accordingly to version 2. The latest version can be found at <http://cdm.unfccc.int/Reference/Documents>.
03	22 December 2006	• The Board agreed to revise the CDM project design document for small-scale activities (CDM-SSC-PDD), taking into account CDM-PDD and CDM-NM.

SECTION A. General description of small-scale project activity

A.1 Title of the small-scale project activity:

Title of the project activity: Wind Energy Project in Gujarat by Enn Enn Corp Limited.
Version – 10
Date –01/12/2012

A.2. Description of the small-scale project activity:

Project activity:

The project activity involves the implementation of 12.6 MW capacity wind power project consisting of 6 Wind Turbine Generators (WTG's) of 2100 KW capacity each by Enn Enn Corp Limited. These wind mills are located at Rajkot and Surendranagar district in the state of Gujarat. The project will generate energy through renewable source i.e. wind. The kinetic energy of wind is converted into mechanical energy and subsequently into electrical energy. Kinetic energy which is carried by wind when passes through the blades of the WTG, is converted to mechanical energy which rotates the connected generator and which in turn produces the electricity.

The electricity thus produced will be displacing the grid electricity which would have been otherwise generated through sources dominated by fossil fuel based power plants. The project activity thereby reduces the emission of green house gases which would have been generated from such fossil fuel based power plants.

Baseline scenario in this case will be the electricity from the grid.

Project Participant's background:

Enn Enn Corp Limited (herein after called as EECL) was established in the year 1990 as a single enterprise and now has successful operations in four separate sectors with each divisions growing steadily each year. The company is mainly engaged in Property development, Exports, Power Production, and Property leasing business. Innovative work culture, high ethical value, transparent systems driven operation, and employing best of resources in the markets with growth, have always been a trademark of the company. Enn Enn Corp Limited showing their concern towards the environment decided to invest in renewable technology such as wind power.

Project Activity's contribution to sustainable developments:
The National CDM Authority (NCDMA), which is the Designated National Authority (DNA) for the Government of India (GOI) in the Ministry of Environment and Forests (MoEF), has mentioned four indicators for the sustainable development in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India[1].

[1] http://www.cdmindia.in/approval_process.php

Thus the project's contribution towards sustainable development has been addressed based on the following sustainable development aspects:

1. Social well being
    - The project activity leads to the development of infrastructure near the wind site. This will provide access of new developed infrastructure particularly roads to the local population.
    - The project activity leads to the alleviation of poverty by establishing direct and indirect benefits through employment generation

2. Environmental well being:
    - The project activity results in the generation of electricity through wind, which will reduce Green House Gas Emission when compared to the electricity generated from combustion of fossil fuel in grid-connected power plant, which would have emitted liquid and/or solid effluents/wastes.
    - The project activity contributes to resource conservation. Thus the project activity will not hamper the surrounding environment.

3. Economic well being:
    - The project activity has contributed towards employment of local personnel during the land development and erection phase of the project activity.
    - The project activity resulted in setting up of electrical power supply system from project site to the nearest substation has resulted in business opportunities for electrical contractor and will provide further scope for future business during the life of the project activity.
    - Local people are employed in the security as well.

4. Technological well being
    - The project activity would act as the cornerstone towards promotion of such technology and help in enhancing the technical know how about the project activity.
    - The project activity deploys the technology, which is environmentally safe and sound, as it does not produce greenhouse gases and any toxic or radioactive waste.
    - The project activity would also help in stimulating the growth of wind power industry in India.

A.3. Project participants:

Name of the Party Involved ((host) indicates a host party)	Private and/or public entity(is) Project participants (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
India (Host Party)	Enn Enn Corp Limited	No

Enn Enn Corp Limited will be the sole owner of the CERs generated from the aforesaid project activity and detailed contact address of the above facility is provided in Annex I.

A.4. Technical description of the small-scale project activity:

A.4.1. Location of the small-scale project activity:

A.4.1.1. Host Party(ies):

India

A.4.1.2. Region/State/Province etc.:

Gujarat

A.4.1.3. City/Town/Community etc:

Dahisara Village, Taluka- Jasdan

Pipaliya Dhoro Village, Taluka-Chotila

Khadvavdi Village, Taluka- Jasdan

Barvada Village, Taluka- Jasdan

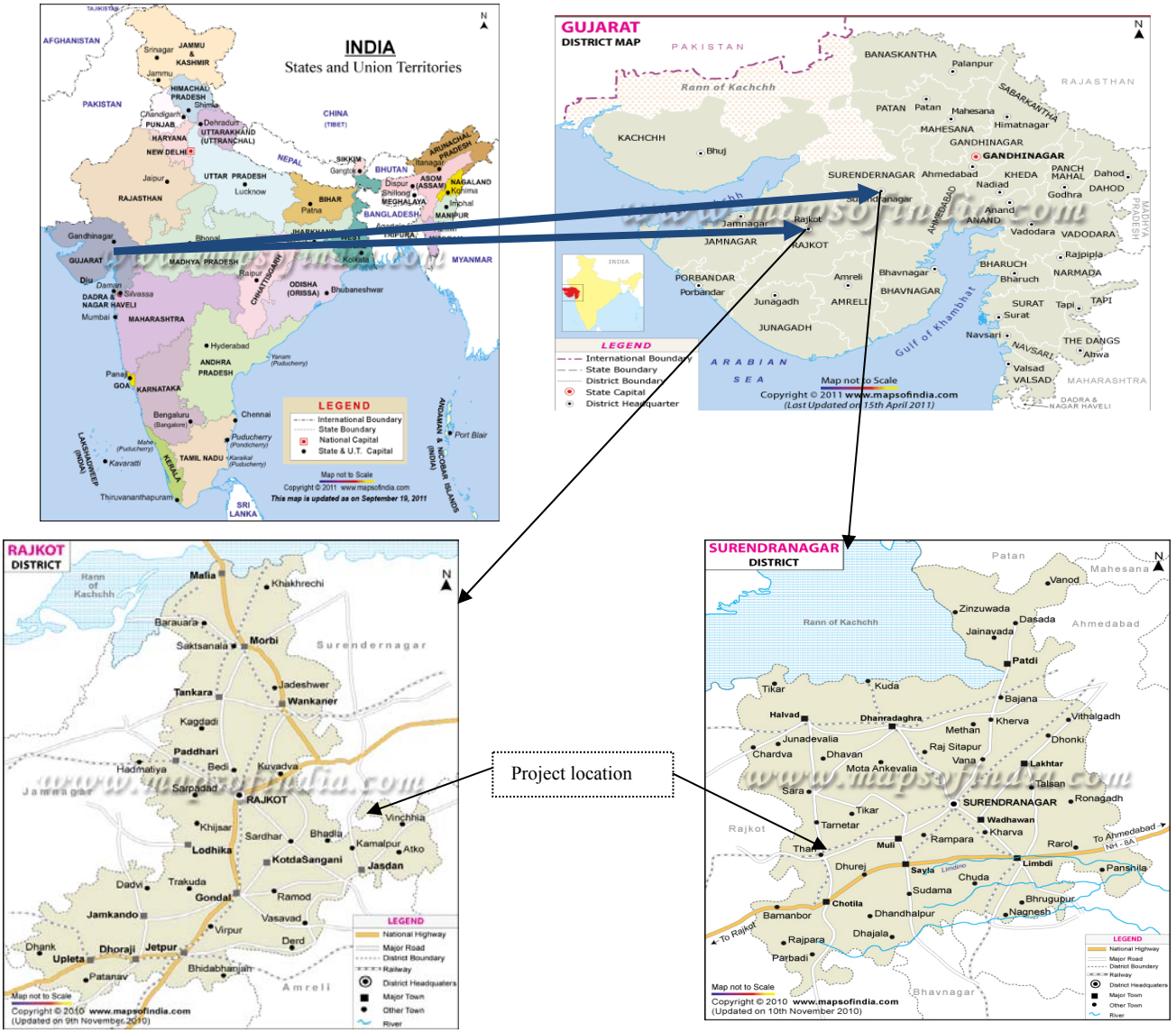
A.4.1.4. Details of physical location, including information allowing the unique identification of this small-scale project activity :

Co-ordinates of the project windmills is as below:

Unique identification	Commissioning date	Location no.	Geographical Co-ordinates	Village	Taluka	District

SEL/2100/11-12/2349	30/09/2011	JSD-43	22^0 11' 21.6" N 71^0 08' 49.7"E	Dahisara	Jasdan	Rajkot
SEL/2100/11-12/2350	30/09/2011	JSD-44	22^0 11' 09.6" N 71^0 09' 01.7" E	Dahisara	Jasdan	Rajkot
SEL/2100/11-12/2346	30/11/2011	JSD-76	22^0 08' 17.2"N 71^0 04' 30.9"E	Pipaliya dhoro	Chotila	Surendranagar
SEL/2100/11-12/2426	29/03/2012	JSD-51	22^0 08' 17.3" N 71^0 10' 55.8"E	Barvada	Jasdan	Rajkot
SEL/2100/11-12/2347	30/11/2011	JSD-24	22^0 09' 27.8" N 71^0 09' 34.3"E	Pipaliya dhoro	Chotila	Surendranagar
SEL/2100/11-12/2348	18/11/2011	JSD-25	22^0 09' 52.2" N 71^0 09' 29.2"E	Khadvavdi	Jasdan	Rajkot

The figure representation of the project activity is shown in the figure below



A.4.2. Type and category (ies) and technology/ measure of the small-scale project activity:

According to Appendix B to the simplified modalities and Procedure the project is being considered under approved methodology. The project activity comes under:

Type –I Renewable Energy Projects
Category I.D. "Grid connected renewable electricity generation" Version 17 (*This category comprises renewable energy generation units, such as photovoltaics, hydro, tidal/wave, wind, geothermal and renewable biomass, that supply electricity to a national or a regional grid; or supplying electricity to an identified consumer facility via national/ regional grid through a contractual agreement such as wheeling*).
Sectoral Scope Number 1: Energy Industries (Renewable/Non renewable)

The project activity incorporates installation of six number of 2100 KW S-88 wind turbine generator of Suzlon Energy Limited. In wind energy based power generation, the kinetic energy of the wind is being converted to mechanical energy and subsequently to electric energy. The wind, when passes through the blades of the WTG, its kinetic energy is converted into mechanical energy, which rotates the wind turbine's blades. The wind blade supplies the mechanical energy to the generator thereby producing electricity.
The technical specification of the wind turbine is depicted below:
Specification of S – 88/2100 KW WTG[2]:

S. No	Parameters	Specification
Operating data		
1.	Installed electrical output	2100 kW
2.	Cut in wind speed	4 m/s
3.	Rated wind speed	14 m/s
4.	Cut out wind speed	25 m/s
5.	Hub height	79m (Foundation top equal to ground level)
6.	Wind Class	IEC-IIA
7.	Rotational speed	15 to 17.6 rpm
Rotor		
1.	Pitch System	Pitch regulated, electrical
2.	Rotor Diameter	88 m
3.	Rotor Swept Area	6082 m^2
4.	Material Type	Epoxy bounded fibre glass
Generator		
1.	Type	Single fed induction Generator with slip rings, variable rotor resistance with SUZLON-FLEXI-SLIP control system
2.	Rated Power	2100 kW
3.	Rated voltage	3 Phase- 690 V AC
4.	Frequency	50 Hz
5.	Protection	IP 54, IP2 3 for slip ring unit

[2] http://www.suzlon.com/pdf/S88%20product%20brochure.pdf

S. No	Parameters	Specification
6.	Insulation Class	Class H
7.	Cooling system	Air-cooled
8.	Slip control	Unique flexi slip providing slip up to 16.67%
Gear box		
1.	Gear box type	3 stage (1 planetary and 2 helical)
2.	Gear ratio	1:98.8
3.	Nominal Load	2200 kW
Yaw system		
1.	Yaw drive system	3 electrical driven planetary drives
2.	Yaw bearing type	Slide bearing with gear ring & automatic greasing system
Braking system		
1.	Aerodynamic brake	3 independent systems with blade pitching mechanism
2.	Mechanical brake	Hydraulic disc brake, activated by Hydraulic Pressure + mechanical rotor lock, activated by hydraulic pressure
Certification		
1.	Design standards	GL 2003
2.	Quality	ISO 9001:2000, ISO 9001:2008, ISO14001:2004 AND OHSAS 18001:2007
Tower		
1.	Tower type	Tabular Tower (4 sections)
2.	Corrosion protection	Epoxy/ PU coated

The project activity is deployed taking into consideration all aspects of environmentally safe and sound technology. Moreover, there has been no technology transfer involved in the project activity.

A.4.3 Estimated amount of emission reductions over the chosen crediting period:

The chosen crediting period for the project activity is 10 years fixed.

Years	Estimation of annual emission reductions in tonnes of CO2 e
Year-1	21085
Year-2	21085
Year-3	21085
Year-4	21085
Year-5	21085
Year-6	21085
Year-7	21085

Years	Estimation of annual emission reductions in tonnes of CO2 e
Year-8	21085
Year-9	21085
Year-10	21085
Total estimated reductions (tonnes of CO_2 e)	210850
Total number of crediting years	**10**
Annual average of the estimated reductions over the crediting period(tCO2 e)	**21085**

A.4.4. Public funding of the small-scale project activity:

There is no public funding to project activity

A.4.5. Confirmation that the small-scale project activity is not a debundled component of a large-scale project activity:

In accordance with paragraph 2 of "GUIDELINES ON ASSESSMENT OF DEBUNDLING FOR SSC PROJECT ACTIVITIES version 03.[3]" proposed small-scale project activity shall be deemed to be a debundled component of a large project activity if there is a registered small scale CDM project activity or an application to register another small-scale CDM project:

1. The same project participants.
2. In the same project category and technology and measure.
3. Registered within the previous 2 years.
4. Whose project boundary is within 1 km of the project boundary of the proposed small-scale activity at the closest point.

There is one project of titled "Wind Energy Project at Jaisalmer district, Rajasthan by Enn Enn Corp Limited" is requesting CDM registration by the same project participant in a different state, Rajasthan and hence the project boundary of this project is not within 1km of the project boundary of the proposed small-scale activity at the closest point.

Therefore, the project participant hereby confirms that there is neither a registered small scale project activity nor any project activity applied for registration within the previous two years with them in the same project category and technology whose project boundary is within 1km of the project boundary of the proposed small scale activity. Therefore this project is not a debundled component of a large-scale project activity.

[3] http://cdm.unfccc.int/Reference/Guidclarif/ssc/methSSC_guid17.pdf

SECTION B. Application of a baseline and monitoring methodology

B.1. Title and reference of the approved baseline and monitoring methodology applied to the small-scale project activity:

Type: I Renewable energy project.
Category: AMS I.D.
Title: Grid connected renewable electricity generation.
Sectoral Scope 01
Version: 17.
Reference: Appendix B of the simplified modalities and procedure for small-scale CDM project activities.
Applicable tools: Tool to calculate the emission factor for an electricity system, Version 2.2.1

B.2 Justification of the choice of the project category:

The project activity to be considered under Type I (Renewable energy project) and category I.D. (Grid connected renewable electricity generation) of small scale project activity should fulfil certain criteria as depicted under modalities and procedure of small scale project activity and the concerned methodology. The applicability of the choice of the project activity under ID can be justified as follows:

<table>
<tr><th>Sl. no.</th><th>Applicability Criteria</th><th>Justification of choice</th></tr>
<tr><td>1.</td><td>This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:
(a) Supplying electricity to a national or a regional grid; or
(b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</td><td>The project activity includes renewable energy generation using wind as the renewable source. And the electricity thus produced is being supplied to the NEWNE grid. Hence, this criterion is applicable.</td></tr>
<tr><td>2.</td><td>Illustration of respective situations under which each of the methodology (i.e. AMS-I.D, AMS-I.F and AMS-I.A) applies is included in Table 2.</td><td>The project activity supplies electricity to a national/regional grid. Hence, in accordance to the Table 2 shown below, the project activity fits into the approved methodology AMS I.D.
<table>
<tr><th></th><th>Project type</th><th>AMS -I.A</th><th>AMS-I.D</th><th>AMS-I.F</th></tr>
<tr><td>1</td><td>Project supplies electricity to a national/regional grid</td><td></td><td>√</td><td></td></tr>
<tr><td>2</td><td>Project displaces grid electricity consumption (e.g. grid import) and/or captive fossil fuel electricity generation at the user end (excess electricity may be supplied to a grid)</td><td></td><td></td><td>√</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Sl. no.</th><th>Applicability Criteria</th><th>Justification of choice</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>3</td><td>Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)</td><td></td><td>√</td><td></td></tr>
<tr><td>4</td><td>Project supplies electricity to a mini grid[4] system where in the baseline all generators use exclusively fuel oil and/or diesel fuel</td><td></td><td></td><td>√</td></tr>
<tr><td>5</td><td>Project supplies electricity to household users (included in the project boundary) located in off grid areas</td><td>√</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>3.</td><td>This methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition;
(c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).</td><td>The project activity involves installation of six new WTGs of 2.1 MW each at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant). Hence, option (a) of this criterion is applicable.</td></tr>
<tr><td>4.</td><td>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:
• The project activity is implemented in an existing reservoir with no change in the volume of reservoir;
• The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m2;
• The project activity results in new reservoirs and the power</td><td>The project activity does not include installation of hydro power plants. Hence, this criterion is not applicable.</td></tr>
</table>

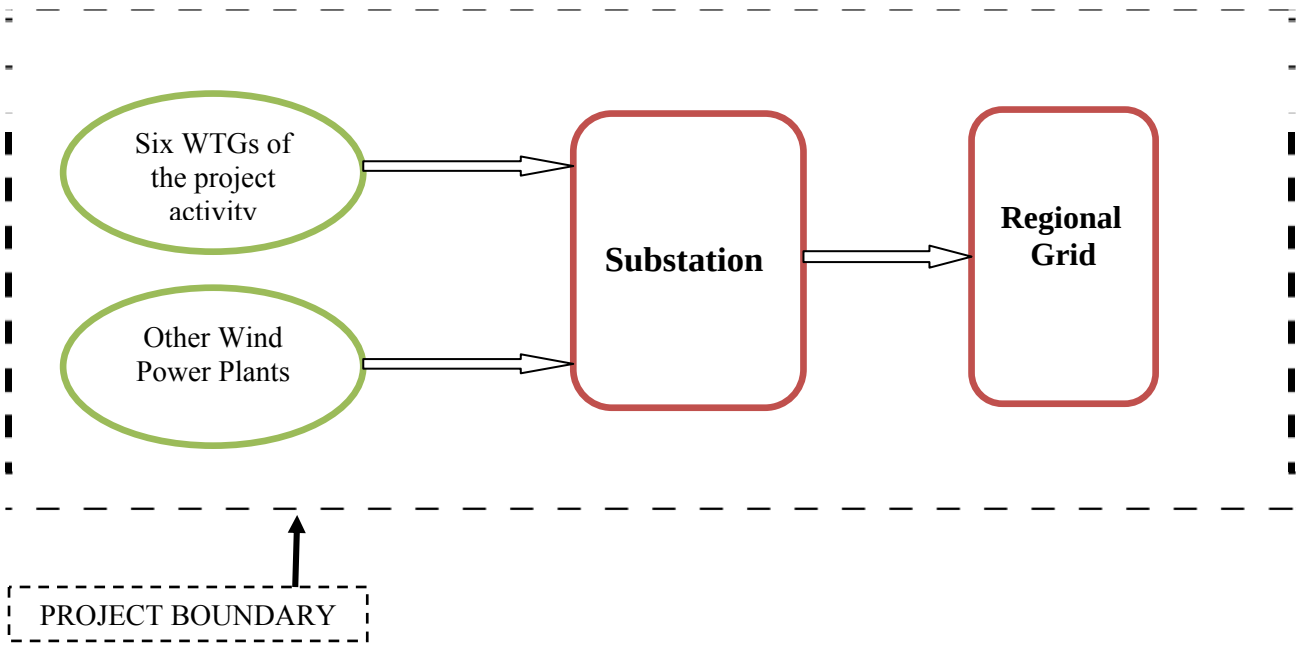
[4] The sum of installed capacities of all generators connected to the mini-grid is equal to or less than 15 MW.

Sl. no.	Applicability Criteria	Justification of choice
	density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m^2.	
5.	If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.	The project activity has only renewable component i.e. 6 WTGs of 2.1 MW each are being installed. The total capacity hence cumulates to 12.6 MW which is certainly less than 15 MW. Hence, this criterion for renewable component is applicable.
6.	Combined heat and power (co-generation) systems are not eligible under this category.	The project activity does not include installation of any combined heat and power (co-generation) systems. Hence, this criterion is not applicable.
7.	In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.	The project activity does not involve addition of renewable energy generation units at an existing renewable power generation facility. Hence, this criterion is not applicable.
8.	In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	No retrofitting or replacement is done in the project activity. Hence, this criterion is not applicable.

As is therefore evident, the proposed CDM project activity meets all the applicability criteria set out under the selected small-scale methodology and hence the project category is applicable to this project.

B.3. Description of the project boundary:

According to the approved methodology AMS I.D- version-17, project boundary includes "*The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to.*" In accordance to the above, following picture depicts the project boundary which includes all the six WTGs of the project activity as well as all the other WTGs connected to the substation which in turn is connected to regional grid.



Project boundary includes the physical, geographical sites of the WTGs of the project activity along with the energy metering equipment, sub-station and the connected NEWNE electricity grid.

B.4. Description of baseline and its development:

The project category applicable to the proposed CDM project activity is AMS- I.D (Version 17). Accordingly, the baseline scenario being considered is as directed in paragraph 10 of AMS- I.D. (Version 17). The proposed CDM project activity is the installation of a new grid-connected renewable power plant/unit and hence the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources.

The project activity is located in the state of Gujarat and connected to NEWNE grid.

Estimation of Emission reduction resulting from Project Activity:

According to AMS I.D the emission reduction resulting from the project activity is estimated as a difference between the baseline and project emission. The methodology does not require the project proponent to consider any emission due to leakage unless the energy generating equipment is transferred from another activity which is not the case here. The baseline emissions are quantified as per the guidelines given in the methodology:

Baseline Emissions:

For the proposed CDM project activity, as per paragraph 11 of AMS- I.D. (Version 17), the baseline emissions are the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor.

$BEy = EG_{BL,y} * EF_{CO2,grid,y}$
Where:
BEy Baseline Emissions in year y; t CO_2
$EG_{BL,y}$ Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y; MWh
$EF_{CO2,grid,y}$ CO_2 emission factor of the grid in year y; t CO_2/MWh

As per paragraph 12 of the AMS- I.D. (Version 17), the Emission Factor $(EF_{CO2,grid,y})$ can be calculated in a transparent and conservative manner as follows:
(a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the
OR (b) The weighted average emissions (in t CO_2/MWh) of the current generation mix. The data of the year in which project generation occurs must be used.

According to paragraph 12 Calculations shall be based on data from an official source (where available) and made publicly available. The baseline emission factor has been worked out by Central Electricity Authority (CEA) based on detailed authenticated information obtained from all the operating Power Stations in the country. The database is an official publication of the Government of India for the purpose of CDM baselines.

Project participant chose option (a) of the para-12 of AMS I.D. version-17. And to calculate the emission factor in accordance to option (a) of the para-12, *CO_2 Baseline Database for the Indian Power Sector, Version 7.0*[5] has been used. "*CO2 Baseline Database for the Indian Power Sector, Version 7.0, Jan 2012"* has been published by the Government of India with the purpose of providing a ready reference for the emission factors to be used in CDM projects.

Project emission:

The project activity is a wind power project that supplies electricity to state grid. Since wind is a renewable resource, the GHG emission from the project activity is zero.

Leakage:

Since the energy generating equipments are not transferred from another activity, leakage need not to be considered as per para-22 of AMS I.D. version-17. Hence, leakage for this project activity remains zero.

B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered small-scale CDM project activity:

According to the Guidelines on the demonstration of additionality of small-scale project activities, Version 09', EB 68, Annex 27, the project participants are required to demonstrate that the proposed CDM project activity is additional and would not have occurred due to at least one of the following barriers:
(a) Investment barrier: a financially more viable alternative to the project activity would have led to higher emissions;

[5] http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm

(b) Technological barrier: a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions;

c) Barrier due to prevailing practice: prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions;

d) Other barriers: Without the project activity, for another specific reason identified by the project participant, such as institutional barriers or limited information, managerial resources, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.

The project participant selected **Investment barrier** to demonstrate in a conservative and transparent manner that the proposed CDM project activity is financial unattractive. In line with the guidelines stipulated under Annex -34 of- EB 35 ("Non-binding best practice examples to demonstrate additionality for SSC project activities"), a benchmark analysis is used in the project case under investment barrier.

The benchmark is calculated using CAPM (Capital Asset Pricing Model) method[6] which is described below.

Cost of Equity (CoE) = $r_f + \beta$ (ERP)

Where:
r_f = risk free rate
ERP = equity risk premium for the market
β =Beta or systematic risk for this type of equity investment coefficient reflecting the volatility (risk) of the stock relative to the market

Benchmark for Project:

Yield to Maturity of Central Government Securities for the latest month available at the time of decision making has been chosen as proxy for the Risk Free Rate. Average works out to be 8.34% for the project activity from the RBI bulletin[7] March 2011

Equity Risk Premium: The equity market risk premium (ERP) is the extra return (over the risk free rate) which investors must expect to earn if they are to hold a portfolio of (volatile) equities rather than risk free securities. It is usually estimated by determining the ex post 'excess returns' of a market portfolio over the historic risk free rate.

The return of the market portfolio is calculated as help of the Compound Annual Growth Rate (CAGR). The CAGR is a metric that measures the average returns from the stock market investments over a period of time. It is a more accurate measure than simple average of returns and calculated as:
CAGR = (ending amount / beginning amount)^(1 / no. of years) – 1

[{(**BSE Sensex** , March 2011) / (**BSE Sensex** index on Apr 1979) } ^ (1/no. of years)]-1
= [(19445.22/100) ^ (1/31.92)]-1

[6] Detailed in benchmark spreadsheet

[7] http://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/26CT_CTSM0311.pdf

= 17.95%

The Equity Risk Premium = 17.95% - 8.34[8]% = 9.61%

However this risk premium represents the premium associated with companies listed on stock exchange. However as per the guidance on assessment of the investment analysis states that the risk premiums applied shall reflect the risk profile of the project activity being assessed.

The β in the CAPM equation helps account for the systematic risk by quantifying the sensitivity of the stock of a listed company representing a particular project type/sector with the market returns. Thus, it incorporates the risk of a specific sector/project type in the calculation of the cost of equity.

The PP has considered a representative portfolio of the following companies which deal in power sector as representative for the project activity under consideration.

- CESC Limited
- NTPC Ltd.
- Reliance Infrastructure Ltd.
- Tata Power Co. Ltd.
- Jaiprakash Power Ventures Limited
- Neyveli Lignite Corpn.
- Gujarat Industries Power Co.Ltd.

Equity beta values for these companies were estimated on the basis of five year data:

Companies	**Equity beta value**
CESC Limited	1.10
NTPC Ltd.	0.70
Reliance Infrastructure Ltd.	1.93
Tata Power Co. Ltd.	1.09
Jaiprakash Power Ventures Limited	1.81
Neyveli Lignite Corpn.	1.54
Gujarat Industries Power Co.Ltd.	1.30

Then the asset beta(β) was estimated using formula Asset beta = Equity beta/{1+(1-tax rate)*(Debt/Equity)}. Asset beta, by definition, reflects the beta of a company without debt. Using asset beta allows the evaluation of the volatility of a company's stock without this debt benefit and thus gives a better idea of the market risk of the stock.
The following table indicates the Asset beta values of these companies;

Companies	**Asset beta value**
Neyveli Lignite Corpn.	0.57
NTPC Ltd.	0.47

[8] http://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/26CT_CTSM0311.pdf

Reliance Infrastructure Ltd.	1.61
Tata Power Co. Ltd.	0.71
Jaiprakash Power Ventures Ltd.	0.58
CESC Ltd.	1.24
Gujarat Industrial Power Co. Ltd.	0.70
Average beta value	0.84

Using the mentioned formula ,Cost of Equity (CoE) = $r_f + \beta$ (ERP) as mentioned earlier, the value of the benchmark thus obtained is 16.42%. This benchmark is lower than the default value of 17.78% as per EB-62, Annex-5.
Value of nominal benchmark was calculated using formula,

Nominal benchmark = (1+benchmark real)*(1+inflation rate)-1
where, nominal value = 11.75%[9]
and inflation rate = 5.4%[10]

This confirms the conservativeness of the benchmark.

Assumption for financial analysis

Parameters	**Values**	**Source**
Installed Capacity of each WTG	2.1 MW	Offer from Suzlon for S-88, 2.1MW WTGs, dated 11 April 2011
Total no. of WTGs	6	Board decision, dated 18 April 2011
PLF	20.05%	PLF report prepared by third party (M/s Vijayant Consultants)
Tariff	3.56 Rs./unit	GERC tariff order 2010
Capital investment	720 mn INR	Offer from Suzlon for S-88, 2.1MW WTGs, dated 11 April 2011
O&M expenditure, 2nd year onward (mn INR)	12.6 mn INR	Offer from Suzlon for S-88, 2.1MW WTGs, dated 11 April 2011
Depreciation(as per IT act)	80%	Appendix 1, Income Tax Rules, 1962
Escalation in Operation & Maintanance Cost per year	5%	Offer from Suzlon for S-66, 1.25MW WTGs, dated 11 April 2011
Tenure including moratorium period	40 quarters	IREDA's Financing Guidelines for Wind Energy Projects
Moratorium Period	4 quarters	IREDA's Financing Guidelines for Wind Energy Projects
Term loan interest	9.50%	Base rates for 5 major banks (http://www.rbi.org.in/scripts/WSSView.aspx?Id=15862)
Debt	30%	GERC order 2010 (http://www.gercin.org/renewablepdf/en_1303211765.pdf

[9] EB-62, Annex-5

[10] Obtained from the inflation forecast of the central bank of the host country for the duration of the crediting period, http://rbi.org.in/scripts/PublicationsView.aspx?id=13050

Term Loan	70%	GERC order 2010 (http://www.gercin.org/renewablepdf/en_1303211765.pdf
Income Tax rate	32.45%	Income tax act for FY 11-12
Minimum Alternative Tax	20.01%	Income tax act for FY 11-12
Book depreciation rates (on all assests)	4.75%	Company's act, Schedule XIV
Salvage Value @ % of project cost	10%	CERC order dated 26/04/2010

Internal Rate of Return (IRR) is the most common financial indicator used by bankers as well as investors to identify the financial viability of the project. The Equity IRR has been computed by taking into account the cash outflows (capital investment in the project) and cash inflows comprising profit after tax, depreciation, interest on term loan and salvage value (in the terminal year).With the above assumptions, post-tax equity IRR for the project activity is:

Equity IRR (without CDM revenue)	6.19%
Equity IRR (with CDM revenue)	14.72%

The equity IRR (without CDM revenue) is lower than the benchmark 16.42%, which demonstrates the additionality of the project. Also, it is evident that the CDM revenue alleviates the investment barrier.

Sensitivity analysis:

As per the para-20 of *Guidance on the Assessment of Investment Analysis, version-05 (EB-62, Annex-5)* , only variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues should be subjected to reasonable variation.
Hence the parameters chosen for sensitivity analysis are:

- Electricity Generation
- O&M cost
- Project cost
- Tariff

Following table depicts equity IRRs without CDM revenue when these parameters are given reasonable variations (+10 and -10%):

Variation in parameter	**-10%**	**10%**
Electricity generation	2.71%	10.74%
O&M cost	7.00%	5.38%
Project Cost	10.10%	3.70%
Tariff	2.71%	10.74%

Since the tariff order of Gujarat, 2010 assumes O&M cost as Rs. 0.65 mn INR per MW, hence apart from above sensitivity check IRR has been checked for an O&M cost at the rate of Rs. 0.65 mn INR MW. The IRR thus obtained was 9.41% which is again lower than the benchmark. Morever, IRR has also calculated on the PLF of 23% mentioned in the tariff order of Gujarat, 2010 which comes out to be 13.30% which is again lower than the benchmark value.

The project activity under consideration has been proposed under APPC tariff structure. The renewable energy projects developed under APPC tariff (Average Pooled Power Purchase Cost) structure are eligible for RECs (Renewable Energy Certificates), which is a market based policy instrument initiated by Government of India to promote renewable energy technologies. As per paragraph 6 of EB 22 (Annex 3) UNFCCC guideline, national and/or sectoral policies or regulations that give comparative advantages to less emission intensive technologies over more emissions-intensive technologies can be termed as E- policies. REC mechanism is clearly an E- policy since it provides comparative advantage to less carbon intensive technologies over more carbon intensive technologies and it came in existence after 11 November 2001. The benefit of REC is not available to conventional fossil fuel based power generation projects. Hence it provides comparative advantage to renewable energy projects.

As per EB 16 (Annex 3) UNFCCC guidelines, the baseline scenario in context of E- policies should refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place. Further Information note on the implementation of E+/E- in the context of projects on the agenda of 53rd Meeting of the CDM EB (EB 53, Annex 32), it is stated that the guidance on national and/or sectoral policies be applied in the determination and assessment of input values used in investment analysis.
If PP had not opted for REC scheme then they would have signed PPA at a preferential tariff of INR 3.56 /kWh approved by GERC (Gujarat Electricity Regulatory Commission). Thus in line with EB 16 (Annex 3) UNFCCC guidance, PP has not considered REC impact during the investment analysis and has used tariff of 3.56 INR/kWh, which would have otherwise been used for demonstrating additionality in the absence of the E- policy. This tariff was also applicable at the time of investment decision of the project participant. Since tariff approved by GERC is fixed, it is not appropriate to conduct sensitivity on tariff. However, PP has conducted the sensitivity analysis for tariff too.

This is evident that even after varying important parameters, equity IRR doesn't cross the benchmark. Therefore the sensitivity analysis also confirms that project activity is additional.

CDM Consideration:
As per "*Guidelines on the demonstration and assessment of prior consideration of the CDM, version-04" (EB-62, Annex13),* PP must inform the Host Party DNA and the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status. PP has intimated UNFCCC board and NCDMA of India. Chronology of the events has been tabulated as following:

Purchase order (Start date of the project activity)	20 April 2011
CDM intimation received by UNFCCC	05 October 2011
CDM intimation sent to Host Party DNA	11 October 2011
Public notice for local stakeholders' consultation meeting	19 October 2011
Local stakeholders' consultation meeting	24 October 2011

The table above shows that notification to seek CDM status has been sent to UNFCCC and Host Party DNA within the six months of start date (i.e. purchase order date). Hence, as per para-2 of EB-62, Annex-13, it is confirmed that CDM was seriously considered in the project activity.

B.6. Emission reductions:

B.6.1. Explanation of methodological choices:

>>

Baseline Emissions: Baseline emissions in the project activity is calculated as per para-11 of AMS I.D. version-17:

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$$

Where:

BE_y	Baseline Emissions in year *y* (t CO_2)
$EG_{BL,y}$	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year *y* (MWh)
$EF_{CO2,grid,y}$	CO_2 emission factor of the grid in year *y* (t CO_2/MWh)

Emission factor of the grid can be calculated as per para-12 of the AMS I.D. version-17 in a transparent and conservative manner as follows:

(a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the "Tool to calculate the Emission Factor for an electricity system version-02.2.1";

OR

(b) The weighted average emissions (in t CO_2/MWh) of the current generation mix. The data of the year in which project generation occurs must be used.

Calculations shall be based on data from an official source (where available) and made publicly available. Project participant has chosen to calculate emission factor as per option (a)

Calculation of the CO_2 emission factor of the grid

As per "Tool to calculate the Emission Factor for an electricity system version-02.2.1", following steps has to be applied

STEP 1. Identify the relevant electricity systems;
STEP 2. Choose whether to include off-grid power plants in the project electricity system (optional);
STEP 3. Select a method to determine the operating margin (OM);
STEP 4. Calculate the operating margin emission factor according to the selected method;
STEP 5. Calculate the build margin (BM) emission factor;
STEP 6. Calculate the combined margin (CM) emissions factor.

"CO2 Baseline Database for the Indian Power Sector, Version 7.0, Jan 2012" has been published by the Government of India with the purpose of providing a ready reference for the emission factors to be used in CDM projects. This database is an official publication of the Government of India for the purpose of CDM baselines. It is based on the most recent data available with the Central Electricity Authority (CEA), Government of India.

STEP 1. Identify the relevant electricity systems

The Indian electricity system is divided into two regional grids, viz. (1) Northern, Eastern, Western, North-Eastern and (2) Southern grid. Each grid covers several states. As the regional grids are

interconnected, there is inter-state and inter-regional exchange. A small power exchange also takes place with neighboring countries like Bhutan and Nepal.

Power generation and supply within the regional grid is managed by Regional Load Dispatch Centre (RLDC). The Regional Power Committees (RPCs) provide a common platform for discussion and solution to the regional problems relating to the grid. Each state in a regional grid meets its demand with its own generation facilities and also with allocation from power plants owned by the Central Sector such as NTPC and NHPC etc. Specific quotas are allocated to each state from the Central Sector power plants. Depending on the demand and generation, there are electricity exports and imports between states in the regional grid. The regional grid thus represents the largest electricity grid where power plants can be dispatched without significant constraints and thus, represents the "project electricity system" for the project activity. As the project activity is connected to the western regional electricity grid, the NEWNE grid is the "project electricity system".

STEP 2. Choose whether to include off-grid power plants in the project electricity system (optional)

Option I is opted for the project activity i.e. only grid power plants are included in the calculation.

Though **STEP 1** and **STEP 2** have been considered already in the data published in "*CO2 Baseline Database for the Indian Power Sector, Version 7.0, Jan 2012*[11]*"*.

STEP 3. Select a method to determine the operating margin (OM):
As per the various alternatives given in "Tool to calculate the Emission Factor for an electricity system version-02.2.1", Simple OM is chosen and emission factor is calculated as per *ex ante* option which says:
"If the *ex ante* option is chosen, the emission factor is determined once at the validation stage, thus no monitoring and recalculation of the emissions factor during the crediting period is required. For grid power plants, use a 3-year generation-weighted average, based on the most recent data available at the time of submission of the CDM-PDD to the DOE for validation."

STEP 4. Calculate the operating margin emission factor according to the selected method;
Following tables shows the simple OM and Net generation[12] respectively for the recent three years:

Simple Operating Margin (tCO2/MWh) (incl. Imports) (1) (2)			
	2008-09	**2009-10**	**2010-11**
NEWNE	1.01	0.98	0.97
South	0.97	0.94	0.94
India	1.00	0.97	0.96

Net Generation in Operating Margin (GWh)			
	2008-09	**2009-10**	**2010-11**
NEWNE	4,21,803	4,58,043	4,76,987

[11] http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm

[12] CO_2 Baseline Database for the Indian Power Sector, Version 7.0, Jan 2012

South	1,21,471	1,34,717	1,37,387
India	5,43,274	5,92,760	6,14,374

Therefore the 3 years net generation weighted OM average for NEWNE grid comes out to be 0.9842 tCO_2/MWh
i.e. **$EF_{OM,y}$ = 0.9842 tCO_2/MWh**

STEP 5. Calculate the build margin (BM) emission factor;
Build margin emission factor is calculated, ex-ante as per the most recent data available. So, build margin emission factor for NEWNE grid for 2010-2011 is 0.8588 tCO2/MWh
i.e. **$EF_{BM,y}$ = 0.8588 tCO_2/MWh**

STEP 6. Calculate the combined margin (CM) emissions factor.
Combined Margin is calculated using following formula
$EF_{CO2,grid,y}$ = W_{OM} x $EF_{OM,y}$ + W_{BM} x $EF_{BM,y}$
where:
$EF_{CO2, grid,y}$: Combined Margin (CM) Emission Factor in tCO2/MWh
$EF_{OM,y}$: Operating Margin Emission Factor for NEWNE grid in year y
$EF_{BM,y}$: Build Margin Emission Factor for NEWNE grid in year y

W_{OM} : Weight of Operating Margin Emission Factor in the emission factor used for the proposed CDM project activity.

W_{BM} : Weight of Build Margin Emission Factor in the emission factor used for the proposed CDM project activity

The "Tool to calculate the emission factor for an electricity system" requires that for intermittent sources for power generation like wind as in the case of proposed CDM project activity the following weights to be used for calculating the emission factor for Combined Margin.
W_{OM} = 75%
W_{BM} = 25%

Hence, using above formula,

$EF_{CO2, grid,y}$ = 0.9528 tCO_2/MWh

Baseline emissions:
Baseline emission is calculated using following equation as per para-11 of AMS I.D. version-17:

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$$

Project Emissions:
As per the para-21 of AMS I.D. version-17, project emissions from of the project activity is zero.

PE_y = 0

Leakage:

Leakage is also zero for the project activity, $LE_y = 0$

$LE_y = 0$

B.6.2. Data and parameters that are available at validation:

Data / Parameter:	**$EF_{OM,y}$**
Data unit:	tCO_2/MWh
Description:	The 3 years net generation weighted OM average for NEWNE grid
Source of data used:	CO2 Baseline Database for the Indian Power Sector, *Version 7.0, Jan 2012* http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm
Value applied:	0.9842
Justification of the choice of data or description of measurement methods and procedures actually applied :	The value has been calculated as per the 3-year net generation-weighted average Simple Operating Margin (tCO2/MWh)
Any comment:	This database is an official publication of Government of India for the purpose of CDM baseline. It is based on most recent data available to the Central Electricity Authority and hence considered authentic. As the calculation of baseline emission has been done *ex ante* its value will remain fixed for the entire crediting period.

Data / Parameter:	**$EF_{BM,y}$**
Data unit:	tCO_2/MWh
Description:	Build margin emission factor
Source of data used:	CO2 Baseline Database for the Indian Power Sector, Version 7.0, Jan 2012 http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm
Value applied:	0.8588
Justification of the choice of data or description of measurement methods and procedures actually applied :	The most recent value available for build margin i.e. for 2009-2010 is applied.
Any comment:	This database is an official publication of Government of India for the purpose of CDM baseline. It is based on most recent data available to the Central Electricity Authority and hence considered authentic. As the calculation of baseline emission has been done *ex ante* its value will remain fixed for the entire crediting period.

Data / Parameter:	**$EF_{CO2, grid,y}$**
Data unit:	tCO_2/MWh
Description:	Grid emission factor (or combined margin for wind project)
Source of data used:	Calculated

Value applied:	0.9528
Justification of the choice of data or description of measurement methods and procedures actually applied :	Calculated as following: $EF_{CO2,\ grid,y} = 0.75 * EF_{OM,y} + 0.25 * EF_{BM,y}$ The calculation was done in accordance to "Tool to calculate the emission factor for an electricity system version-02.2.1"
Any comment:	This database is an official publication of Government of India for the purpose of CDM baseline. It is based on most recent data available to the Central Electricity Authority and hence considered authentic. As the calculation of baseline emission has been done *ex ante* its value will remain fixed for the entire crediting period.

B.6.3 Ex-ante calculation of emission reductions:

Emission Reduction is calculated according to following formula

$\mathbf{ER_y = BE_y – PE_y - LE_y}$

where

$\mathbf{ER_y}$: Emisson reduction in a year y

$\mathbf{BE_y}$: Baseline emission in a year y

$\mathbf{PE_y}$: Project emission in a year y

$\mathbf{LE_y}$: Leakage emission in a year y

Estimation of baseline emissions:

Baseline emission is calculated using following equation as per para-11 of AMS I.D. version-17:

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$$

Hence BEy = 22130 MWh/anuum * 0.9528 tCO_2/MWh

$\mathbf{BE_y = 21085}$

Project Emissions:

As per the para-21 of AMS I.D. version-17, project emissions from of the project activity is zero..

$\mathbf{PE_y = 0}$

Leakage:

Leakage is also zero for the project activity, $LE_y = 0$

$\mathbf{LE_y = 0}$

Emission Reduction:

$ER_y = BE_y – PE_y - LE_y = 21085-0-0 = 21085$

B.6.4 Summary of the ex-ante estimation of emission reductions:

Year	Estimation of project activity emissions (tCO2 e)	Estimation of baseline emissions (tCO2 e)	Estimation of leakage (tCO2 e)	Estimation of overall emission reductions (t CO2 e)
Year-1	0	21085	0	21085
Year-2	0	21085	0	21085
Year-3	0	21085	0	21085
Year-4	0	21085	0	21085
Year-5	0	21085	0	21085
Year-6	0	21085	0	21085
Year-7	0	21085	0	21085
Year-8	0	21085	0	21085
Year-9	0	21085	0	21085
Year-10	0	21085	0	21085
Total (tonnes of CO_2 e)	**0**	210850	0	210850

B.7 Application of a monitoring methodology and description of the monitoring plan:

B.7.1 Data and parameters monitored:

Data / Parameter:	EG_y
Data unit:	MWh
Description:	Net electricity supplied to the NEWNE grid by Project activity
Source of data to be used:	Certificate for share of electricity issued by SLDC (State Load Dispatch Center)
Value of data	22130
Description of measurement methods and procedures to be applied:	The net electricity exported to the grid by project activity WTGs will be ascertained by government agency GEDA (Gujarat Energy Development Agency) on the basis of ABT meter reading at substation(includes generation from project and non project WTGs) and meter readings at various transformer yard meters (near WTGs). The net electricity generated by the project activity is taken directly from the share certificate issued by state utility (currently SLDC) on monthly basis. The

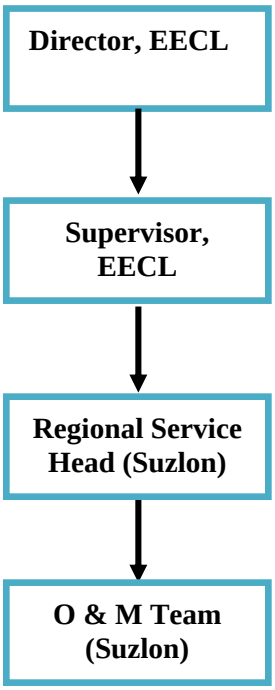
	amount of energy supplied by the WTGs are continuously monitored and recorded once a month. Continuous monitoring, hourly measurement and monthly recording is carried out.
QA/QC procedures to be applied:	The ABT meter at the substation is of 0.2S accuracy class and is maintained by GETCO (Gujarat Energy Transmission Corporation Limited). Calibration of the substation meter is done by GETCO at least once in 3 years. Calibration of the yard meters will be carried out at least once in 3 years; these yard meters are of accuracy class 0.2s.
Any comment:	Data will be archived for a period of 2 years after crediting period or last issuance whichever is later'

B.7.2 Description of the monitoring plan:

The monitoring plan of the project activity is formulated as per the approved methodology AMS I.D. version-17. As per the methodology, net electricity supplied to the grid is to be monitored. The WTGs installed in the proposed CDM project activity have been supplied by Suzlon. The proposed CDM project activity is operated and managed by Suzlon. Suzlon follows the documentation practices to ensure the reliability and availability of the data for all the activities as required from the identification of the site, wind resource assessment, logistics, finance, construction, commissioning and operation of the wind power project.

Structure of the monitoring team

Following diagram depicts the structure of the monitoring team.



Roles and responsibilities of the monitoring team

Director, EECL – He would be the ultimate authority for ensuring smooth and timely execution of all the monitoring and monitoring related activities for the project activity. He would be reported by Supervisor, EECL.

Supervisor, EECL – He would ensure that all the required monitoring data is being monitored appropriately and being stored properly. He would also take any corrective actions (if required) at his level and co-ordinate with Regional Service head (Suzlon) and O & M team (Suzlon).

Regional Service Head (Suzlon) - He would ensure that the monitoring plan is adhered and operations are carried out as per standard procedures. He will also collect all the relevant data from O&M Team (Suzlon) and submit them to the supervisor, EECL.

O&M Team - The monitoring data related to the project activity would be collected, reported, maintained and archived by O&M Team of Suzlon. The calibration of the meters associated to the project activity will be done by GETCO for which O&M Team of Suzlon would co-ordinate with them. The corrective actions (if required) would be taken by O&M Team of Suzlon to maintain the quality of data. The team would further submit the monitoring data to Regional Service Head (Suzlon).

Metering System

The procedures for the metering of electricity is as discussed here. The net electricity exported to the grid by project activity WTGs will be ascertained by government agency, GEDA (Gujarat Energy Development Agency) on the basis of substation meter reading (includes generation from project and non project WTGs) and meter readings at various transformer yard meters (near each WTG) based upon an apportioning method. The ABT meters installed at the sub-stations continuously monitor the electricity generated. Continuous monitoring, hourly measurement and monthly recording is carried out.
Apportioning of net electricity supplied to grid by WTGs of project activity is being carried out by GEDA. Apportioning is being carried out based on reading of meters at substation and yard meter at each WTG. Apportioning is not under the control of PP and data is not shared with PP. State Load Dispatch Centre (SLDC) issues certificate of share of electricity generated which provides net electricity exported to grid by WTGs of PP and this forms basis of emission reduction calculations.

The net electricity supplied by the project activity is taken directly from the certificate of share issued on monthly basis. If the crediting period starts from the middle of the month, since it would not be possible to determine the amount of energy generated from then on, following a conservative approach, the project participant would not be availing credits for that particular month; the same approach would be followed for the last monitoring period as well.

QA/QC Procedures

The substation also has trivector meters (one main meter and one check meter) of 0.2s accuracy class. If some defect occurs to ABT meters, these trivector meters can be used to obtain the reading. All meters

(ABT, main and check) meters are calibrated at least once in a three year by GETCO or its representatives.
The measurement results will be cross checked with records of sole electricity such as invoices.

Data Archiving

All data will be archived for a period of 2 years after crediting period or last issuance whichever is later.'

B.8 Date of completion of the application of the baseline and monitoring methodology and the name of the responsible person(s)/entity(ies)

Date of application of the baseline and monitoring methodology:
15/10/2011

Name of the responsible person and entity:
Mr. Abhishek N. Shah
Director,
Enn Enn Corp Limited,
Abhishek House, Kadampali Society,
Opp. Jeevan Bharti School, Nanpura,
Surat-395001
Gujarat, India

This entity is also the project participant.

SECTION C. Duration of the project activity / crediting period

C.1 Duration of the project activity:

C.1.1. Starting date of the project activity:

20/04/2011 (Date of Purchase Order)

C.1.2. Expected operational lifetime of the project activity:

20 years 0 months

C.2 Choice of the crediting period and related information:

C.2.1. Renewable crediting period

C.2.1.1. Starting date of the first crediting period:

Not applicable

C.2.1.2. Length of the first crediting period:

Not applicable

C.2.2. Fixed crediting period:

C.2.2.1. Starting date:

25/12/ 2012 or the registration date, whichever is later

C.2.2.2. Length:

10 years 0 months

SECTION D. Environmental impacts

D.1. If required by the host Party, documentation on the analysis of the environmental impacts of the project activity:

As per the Ministry of Environment and Forests (MoEF[13]), Government of India notification dated September 14, 2006[14] and December,1, 2009[15] regarding the requirement of EIA studies as per the Environment Protection Rule, 1986 (MoEF, 2002), EIA is not required for wind power projects.

D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party:

No adverse impact on environment due to the installation of the wind turbine generators.

[13] Ministry of Environment and Forests (India)

[14] http://envfor.nic.in/legis/eia/so1533.pdf

[15] http://moef.nic.in/downloads/rules-and-regulations/3067.pdf

SECTION E. Stakeholders' comments

E.1. Brief description how comments by local stakeholders have been invited and compiled:

Stakeholders' consultation meeting was conducted with the purpose to inform the stakeholders' about the project activity and to discuss their concerns regarding the project activity. Meeting was attended by various stakeholders identified by EECL. Public notice was published in the newspaper "Gujarat Samachar"on 19th October 2011 in order to inform the stakeholders and common people as well. Stakeholders were also invited by means of invitation letters.

Stakeholders identified by EECL were:

1. Representative(s) from the Village.
2. Representative from the District Administrative Office.
3. Representative from CDM Cell, Department of Environment and Forests, Government of India
4. Representative from State Pollution Control Board.
5. Representative from CDM Consulting team.
6. Representative from the Technical Consulting team.
7. Representative from the Equipment Supplier.

Meeting was held on 24th October 2011 at Rajpara substation, Surendranagar.

CDM consultant informed all the attendees about EECL and the project activity. He explained them about the initiative to prevent the emissions of green house gases with the help of CDM.

Representative from Suzlon Energy Limited also discussed about the project activity and technology involved.

After explaining about the Wind power project, concept of CDM and relevant issues, all the attendees were requested to put forward their queries and comments.

Attendees took huge interest in putting their queries forward. Queries were satisfactorily addressed by the CDM consultant and Suzlon representative.

E.2. Summary of the comments received:

Following are the queries raised by various stakeholders that were responded by representative from Suzlon and CDM consultant.

Queries	Responses
Can't the electricity be supplied to the villagers and the neighbourhood areas? This query was raised by Jaisinghbhai	We cannot guarantee the same. Once the electricity is generated, it is fed into the state grid and then it becomes the decision of the state government as to where they have to give supply with respect to the amount of power at their disposal. But yes, we do expect the same.
How does wind mill produce electricity and how does this helps in GHG reduction? This was the main common query of few stakeholders present there. This query was raised by Munnabhai	Wind creates pressure on the rotor blades forcing them to rotate and the rotor is connected to generator which produces electricity. Therefore, the electricity produced in this manner displaces the grid electricity which would have been otherwise generated from fossil fuel dominated power plants.

To make the discussion more interactive, Suzlon representative also asked some questions to the stakeholders which were responded by the stakeholders. In response to a question asked by Suzlon representative, stakeholders said that they appreciated such initiative of installing wind mill to generate power without any emission. They also said that more initiative of similar kind should be taken.

In this way, meeting was concluded with the vote of thanks by Suzlon representative.

E.3. Report on how due account was taken of any comments received:

All the participants of stakeholders' meeting appreciated such initiative taken by EECL. There were no negative comments received from the stakeholders.

Annex 1

CONTACT INFORMATION ON PARTICIPANTS IN THE PROJECT ACTIVITY

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Salutation:	Mr.
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Personal E-Mail:	abhishek@ennenngroup.com

Annex 2

INFORMATION REGARDING PUBLIC FUNDING

No public funding is involved in this project activity

ANNEX 3

BASELINE INFORMATION

Please refer to section B.6.3

Annex 4

MONITORING INFORMATION

Please refer to section B.7.2

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