WIND POWER PROJECT IN TIRUPUR DISTRICT

Document Prepared By NSL Wind Power Company (Phoolwadi) Pvt. Ltd

Project Title	Wind Power Project in Tirupur District
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1 PROJECT DETAILS

1.1 Summary Description of the Project

NSL Wind Power Company (Phoolwadi) Pvt. Ltd. has implemented a 49.5 MW wind Power project in Tirupur District in the state of Tamil Nadu. ReGen Powertech Private Limited is the Technology Supplier for this project.

The proposed project activity involves power generation using Wind Energy Converters (WEC) of 1.5 MW capacity each. The purpose of the project activity is to commission and operate 33 WECs to a total capacity of 49.5 MW in the state of Tamil Nadu. The power generated by this project activity has been supplied to Tamil Nadu state electricity grid, which is a part of Southern Grid, India. The project activity will help to reduce the supply demand gap in the state and also helps in contributing to the sustainable development by using wind energy as the source of power generation and reduction of GHG Emission.

The first machine has been commissioned on 11/07/2011 and the project is under operation since then. Thus, the start date of operation of project activity is the start date of monitoring period i.e. 11/07/2011 and end date of monitoring period is 30/01/2013 which is a day before the CDM crediting period starts as 31/01/2013.

In the absence of the project activity, the equivalent amount of electricity would have been generated by power plants connected to the southern grid, which is dominated by fossil fuels.

1.2 Sectoral Scope and Project Type

Sectoral Scope : 01 Energy Industries (renewable-/non-renewable sources)
Project Type : Type I – Renewable Energy Projects
Project Category : ACM 0002 of version 13.0.0

The tools used for the project activity are as follows:

- "Tool to calculate emission factor for an electricity system" – Version 02.2.1 , Approved in EB 63[1].
- "Tool for the demonstration and assessment of additionality"- Version 06.0.0. Approved in EB 65[2].
- "Guidance on assessment of investment analysis"- Version 5. Approved in EB 62[3].

[1] http://cdm.unfccc.int/filestorage/Z/U/L/ZULY095DAFBVKQ2IEXSM6HRT7NOG1C/eb63_repan19.pdf?t=TlV8bHc3MWQ2fDCJz9hEWk1d5fEgpXWlEBK_

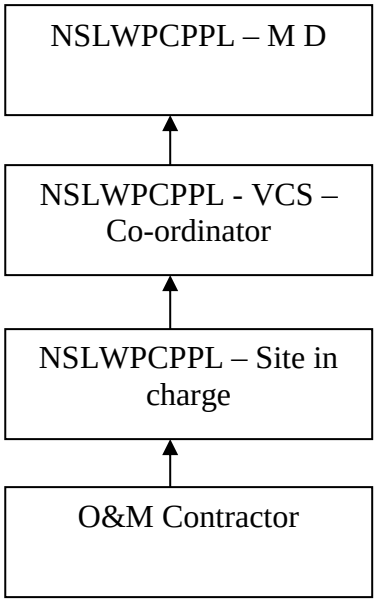
[2] http://cdm.unfccc.int/filestorage/9/A/G/9AGSVUJ4HP731N0DRL8CYF5EXTBZKQ/eb65_repan21.pdf?t=NDJ8bHc1MWRwfDB_K5g9GNf7yg--IAB8iFg2

[3] http://cdm.unfccc.int/filestorage/O/H/N/OHNFC4T6RUZEQXDL20JVG7MWK35YI1/eb62_repan5.pdf?t=eDl8bHc2ZXhyfDBPwToPTqhFjrWImG0aC3Np

The project activity is not a grouped project.

1.3 Project Proponent

The organisational structure of this VCS project activity is as follows.



Contact details of the project proponent are as follows:

Organization:	NSL Wind Power Company (Phoolwadi) Pvt. Ltd.
Street/P.O.Box:	Road No. 12, Banjara Hills,
Building:	#8-2-684/2/A, NSL ICON
City:	Hyderabad
State/Region:	Andhra Pradesh
Postcode/ZIP:	500034
Country:	India
Telephone:	040 3051 4444
FAX:	040 2332 7919
E-Mail:	pnr@nslindia.com
URL:	http://www.nslpower.com/
Represented by:	-
Title:	GM (Finance)
Salutation:	Mr
Last name:	P
Middle name:	-
First name:	Nageswara Rao
Department:	-
Mobile:	-
Direct FAX:	040 2332 7919
Direct tel:	040 3051 4444
Personal e-mail:	pnr@nslindia.com

1.4 Other Entities Involved in the Project

Provide contact information and roles/responsibilities for any other entities involved in the development of the project.

1.5 Project Start Date

The project start date for this project is said to be 11th July 2011. This is the day on which the first machine was commissioned.

1.6 Project Crediting Period

The project is registered under Clean Development Mechanism (CDM) of UNFCCC with 10 years crediting period (Reference No: 9538).[4] Crediting period of the project under CDM starts on 31st January 2013 and ends on 30th January 2023.

The project has begun generating GHG emission reductions from 11th July 2011. Hence, monitoring period for VCS begins on 11th July 2011 and ends on 30th January 2013, since the crediting period under CDM starts on 31st January 2013. So, considering the start date of crediting period under VCS is 11th July 2011 and renewable once at the end of the first crediting period of 10 years and the same is limited to 10th July 2021.The PP wish to kept has an option to claim carbon credits in any GHG program, but it ensures that there will not be any double counting on carbon credit benefit (VCS/CDM) during the applicable crediting period.

1.7 Project Scale and Estimated GHG Emission Reductions or Removals

The project activity is a large scale wind power project as the capacity is more than 15 MW.

Years	Estimated GHG emission reductions or removals (tCO_2e)
Year 1	109,306
Year 2	109,306
Year 3	109,306
Year 4	109,306
Year 5	109,306
Year 6	109,306
Year 7	109,306
Year 8	109,306
Year 9	109,306

[4] http://cdm.unfccc.int/Projects/DB/SGS-UKL1359122058.75/view

Year 10	109,306
Total estimated ERs	1,093,060
Total number of crediting years	10 Years
Average annual ERs	109,306

1.8 Description of the Project Activity

The proposed project activity involves power generation using Wind Energy Converters (WEC) of 1.5 MW capacity each. The purpose of the project activity is to commission and operate 33 WECs to a total capacity of 49.5 MW in the state of Tamil Nadu. The power generated by this project activity has been supplied to Tamil Nadu state electricity grid, which is a part of Southern Grid, India. The project activity will help to reduce the supply demand gap in the state and also helps in contributing to the sustainable development by using wind energy as the source of power generation and reduction of GHG Emission.

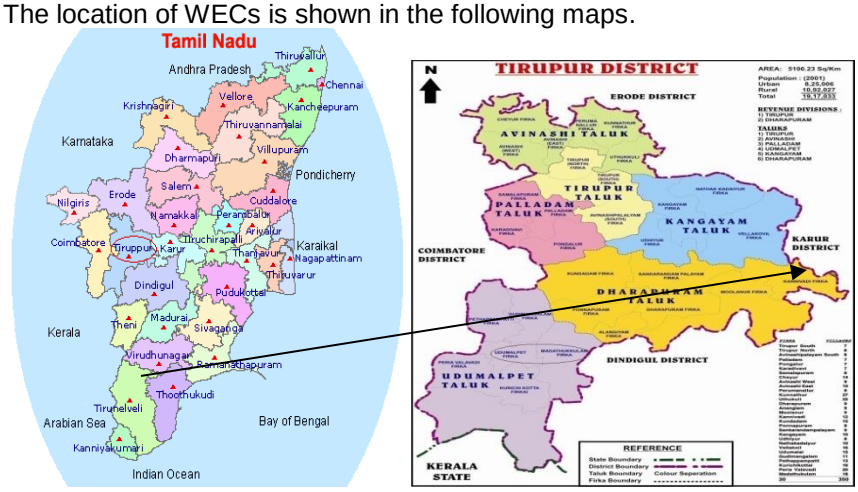
1.9 Project Location

The wind power project is located in Tirupur District, Tamil Nadu State, India. The geo-coordinates of the project location is as follows:
The location of WECs is as given below

S.No	Location No.	Village	Latitude	Longitude
1	RKPT 465	Kondampatti	10° 42' 15.391" N	77° 14' 17.901" E
2	RAK 444	Anaikadavu	10° 43' 30.983" N	77° 9' 40.871" E
3	RIN 397	Iluppanagaram	10° 42' 40.834" N	77° 10' 24.108" E
4	RKPT 502	Kondampatti	10° 42' 1.297" N	77° 14' 9.738" E
5	RIN 421	Iluppanagaram	10° 43' 5.674" N	77° 9' 58.754" E
6	RVG 274	Vadugapalayam	10° 41' 36.949" N	77° 13' 48.538" E
7	RSP 68	Somavarapatti	10° 42' 2.215" N	77° 12' 33.058" E
8	RVP 433	Virugalpatti	10° 42' 21.917" N	77° 11' 12.368" E
9	RIN 433	Iluppanagaram	10° 42' 59.917" N	77° 10' 21.744" E
10	RVP 53	Virugalpatti	10° 43' 1.547" N	77° 8' 57.101" E
11	RVG 292	Vadugapalayam	10° 42' 13.301" N	77° 13' 42.751" E
12	RVP 86	Virugalpatti	10° 42' 57.446" N	77° 8' 38.451" E
13	RJKM 17	J.Krishnapuram	10° 48' 34.394" N	77° 14' 27.477" E
14	RJKM 529	J.Krishnapuram	10° 47' 45.572" N	77° 15' 32.568" E
15	RKPI 240	Kammalapatti	10° 49' 41.656" N	77° 14' 57.202" E
16	RKPI 257	Kammalapatti	10° 49' 57.304" N	77° 14' 30.628" E
17	RJKM 593	J.Krishnapuram	10° 48' 25.535" N	77° 14' 46.729" E
18	RSPR 433	Sencheriputhur	10° 48' 20.444" N	77° 15' 28.880" E
19	RJKM 535	J.Krishnapuram	10° 48' 1.713" N	77° 15' 27.621" E
20	RTK 137	Talakkarai	10° 48' 35.987" N	77° 13' 51.881" E
21	RSPR 157	Sencheriputhur	10° 48' 31.749" N	77° 15' 9.055" E
22	RSPR 161	Sencheriputhur	10° 48' 39.607" N	77° 15' 33.334" E
23	RAYM 40	Ayyampalayam	10° 49' 30.720" N	77° 14' 39.941" E
24	RSPR 199	Sencheriputhur	10° 48' 47.367" N	77° 16' 2.089" E
25	RJKM 62	J.Krishnapuram	10° 48' 16.891" N	77° 13' 46.935" E
26	RKTM 366	Kottamangalam	10° 40' 22.112" N	77° 15' 46.576" E

27	RKTM 389	Kottamangalam	10° 40' 11.207" N	77° 15' 6.924" E
28	RKTM 250	Kottamangalam	10° 39' 36.748" N	77° 15' 43.511" E
29	RKTM 540	Kottamangalam	10° 39' 27.480" N	77° 14' 12.494" E
30	RPM 364	Pookulam	10° 38' 2.905" N	77° 13' 56.287" E
31	RPM 331	Pookulam	10° 38' 5.271" N	77° 13' 25.585" E
32	RPM 349	Pookulam	10° 37' 27.713" N	77° 13' 54.617" E
33	RAM 65	Amandakadavu	10° 45' 43.902" N	77° 14' 14.830" E

The location of WECs is shown in the following maps.



1.10 Conditions Prior to Project Initiation

The project is a Greenfield wind power project and does not involved generation of GHG emissions for the purpose of their subsequent reduction, removal or destruction.

1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks

Identify and demonstrate compliance of the project with all and any relevant local, regional and national laws, statutes and regulatory frameworks.

1.12 Ownership and Other Programs

1.12.1 Right of Use

The project activity comprises of 33 WECs with a capacity of 1.5 MW each owned by NSL Wind Power Company (Phoolwadi) Private Limited. The evidence for same are Commissioning certificates for project activity issued to NSL Wind Power Company (Phoolwadi) Private Limited

1.12.2 Emissions Trading Programs and Other Binding Limits

Net GHG emission reductions or removals generated by the project will not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions. Letter of Approval issued by National CDM Authority, Ministry of Environment and Forests (MOEF) which is the Designated National Authority of India is submitted as the evidence.

1.12.3 Participation under Other GHG Programs

The project is registered under Clean Development Mechanism (CDM) of UNFCCC with Reference No: 9538.

1.12.4 Other Forms of Environmental Credit

The project neither has nor intends to generate any other form of GHG-related environmental credit for GHG emission reductions or removals claimed under the VCS Program. Approvals accorded by Tamil Nadu Generation and Distribution Corporation Limited are submitted as documentary evidences.

1.12.5 Projects Rejected by Other GHG Programs

Indicate whether the project has been rejected by any other GHG programs. Where the project has been rejected, provide the relevant information.

1.13 Additional Information Relevant to the Project

Eligibility Criteria

Not applicable to the project activity.

Leakage Management

Not applicable to the project activity.

Commercially Sensitive Information

No commercially sensitive information has been excluded from the public version of the project description.

Further Information

Contribution to Sustainable Development:

Ministry of Environment and Forests, Government of India has stipulated economic, social, environment and technological well being as the four indicators of sustainable development. The project contributes to sustainable development using the following ways.

Social well being:

- The project would help in generating employment opportunities during the construction and operation phases.
- The project activity will lead to development in infrastructure in the region like development of roads and also may promote business with improved power generation.
- The project participant will contribute 2% of net revenue realised from sale of CERs towards community development initiatives.

Economic Well Being:

- The project is a clean technology investment in the region, which would not have been taken place in the absence of the CDM benefits
- The project activity will also help to reduce the demand supply gap in the state.

Environmental Well Being:

- The project activity will generate power using zero emissions wind based power generation which helps to reduce GHG emissions and specific pollutants like SOx, NOx, and SPM associated with the conventional thermal power generation facilities.
- The project activity will indirectly helps in conserving natural resource like forest, ecosystems by using renewable wind resource to generate power.

Technological Well Being:

- The successful operation of project activity would lead to promotion of Wind based power generation and would encourage other entrepreneurs to participate in similar project.

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2 APPLICATION OF METHODOLOGY

2.1 Title and Reference of Methodology

Provide the title, reference and version number of the methodology or methodologies applied to the project.

2.2 Applicability of Methodology

Demonstrate and justify that the project activity(s) meet the applicability conditions of the methodology(s) applied to the project.

2.3 Project Boundary

Define the project boundary and identify the relevant GHG sources, sinks and reservoirs for the project and baseline scenarios (including leakage if applicable).

Source		Gas	Included?	Justification/Explanation
Baseline	Source 1	CO_2		
		CH_4		
		N_2O		
		Other		
	Source 2	CO_2		
		CH_4		
		N_2O		
		Other		
Project	Source 1	CO_2		
		CH_4		
		N_2O		

Source		Gas	Included?	Justification/Explanation
		Other		
	Source 2	CO_2		
		CH_4		
		N_2O		
		Other		

2.4 Baseline Scenario

Identify and justify the baseline scenario.

2.5 Additionality

Demonstrate and assess the additionality of the project, undertaken in accordance with the applied methodology.

2.6 Methodology Deviations

Describe and justify any methodology deviations.

3 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

3.1 Baseline Emissions

Describe the procedure for quantification of the baseline emissions and/or removals. Include all relevant equations.

3.2 Project Emissions

Describe the procedure for quantification of the project emissions and/or removals. Include all relevant equations.

3.3 Leakage

Describe the procedure for quantification of the leakage emissions. Include all relevant equations.

3.4 Summary of GHG Emission Reductions and Removals

Describe the procedure for quantification of net GHG emission reductions and removals. Include all relevant equations For AFOLU projects, include net change in carbon stocks.

Provide the ex-ante calculation (estimate) of baseline emissions/removals, project emissions/removals, leakage emissions and net emission reductions and removals, using the table below:

Years	Estimated	Estimated	Estimated	Estimated net

	baseline emissions or removals (tCO_2e)	project emissions or removals (tCO_2e)	leakage emissions (tCO_2e)	GHG emission reductions or removals (tCO_2e)
Year A				
Year B				
Year C				
Year...				
Total				

4 MONITORING

4.1 Data and Parameters Available at Validation

Describe data and parameters available at validation using the following table (copy table for each data unit/parameter).

Data Unit / Parameter:	
Data unit:	
Description:	
Source of data:	
Value applied:	
Justification of choice of data or description of measurement methods and procedures applied:	
Any comment:	

4.2 Data and Parameters Monitored

Describe data and parameters monitored subsequent to validation using the following table (copy table for each data unit/parameter).

Data Unit / Parameter:	
Data unit:	
Description:	
Source of data:	
Description of measurement methods and procedures to be applied:	*Identify how the data/parameter is measured*
Frequency of monitoring/recording:	*Identify measurement and recording frequency*
Value applied:	*Provide estimated value for the purpose of*

	calculating ex-ante GHG emission reductions or removals
Monitoring equipment:	*Identify equipment used to monitor the data/parameter including type, accuracy class, serial number of equipment*
QA/QC procedures to be applied:	*Identify calibration information such as frequency, date of last calibration and validity*
Calculation method:	*If applicable*
Any comment:	

4.3 Description of the Monitoring Plan

- *Describe the monitoring plan.*
- *Identify organizational structure, responsibilities and competencies.*
- *Describe methods for generating, recording, storing, aggregating, collating and reporting data on monitored parameters.*
- *Describe procedures for handling internal auditing and non-conformities.*

Line diagrams may be used to display the GHG collection and management system.

5 ENVIRONMENTAL IMPACT

Summarize any environmental impact assessments carried out with respect to the project, where applicable.

6 STAKEHOLDER COMMENTS

Summarize relevant outcomes from stakeholder consultations and mechanisms for on-going communication.