WIND BASED POWER GENERATION BY PANAMA WIND ENERGY PRIVATE LIMITED IN MAHARASHTRA, INDIA

Document Prepared By EKI Energy Services Limited

Project Title	Wind based power generation by Panama Wind Energy Private Limited in Maharashtra, India
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1 PROJECT DETAILS

1.1 Summary Description of the Project

Not Applicable

1.2 Sectoral Scope and Project Type

The project activity falls under the following Sectoral scope and Project Type:

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

Project Type: I - Renewable Energy Projects

Methodology: ACM0002: Grid-connected electricity generation from renewable sources - Version 12.3.0

The project is not a grouped project activity.

1.3 Project Proponent

Organization name	**Panama Wind Energy Private Limited**
Contact person	Mr. Dinesh Jagdale
Title	Director & Chief Operating Officer
Address	Viman Nagar 1st Floor, Lunkad Towers,Pune Maharashtra 411 014
Telephone	+91 20 26125060
Email	djagdale@panama-group.com

1.4 Other Entities Involved in the Project

Organization name	EKI Energy Services Limited
Role in the project	Project Consultant
Contact person	Mr. Manish Dabkara
Title	MD & CEO
Address	Office No. 201, EnKing Embassy Plot No. 48, Scheme No. 78 Part II, Vijay Nagar INDORE – 452010
Telephone	+91-731-4289086
Email	manish@enkingint.org

1.5 Project Start Date

Project Start Date: 22-Feb-2013

The project start date is the date on which first WTG was commissioned under the Project activity.

1.6 Project Crediting Period

The VCS Project crediting period will be same as CDM crediting period i.e 05/12/2012 to 04/12/2022. The PP has taken CDM benefits from period 05/12/2012 to 01/04/2016. However period from 02/04/2016 to 28/02/2017, PP is availing VCU benefits under current monitoring period.

Crediting Period Start date: 05-December-2012

Crediting Period End date: 04-December-2022

The project activity adopts fixed crediting period of 10 years period in line with CDM registered PDD.

1.7 Project Scale and Estimated GHG Emission Reductions or Removals

The project does not falls under large scale category since the emission reductions are less than 300,000 tCO_2 e per annum

Project Scale	
Project	X
Large project	

Year	Estimated GHG emission reductions or removals (tCO_2e)
Year 1	186,270
Year 2	186,270
Year 3	186,270
Year 4	186,270
Year 5	186,270
Year 6	186,270
Year 7	186,270
Year 8	186,270
Year 9	186,270

Year 10	186,270
Total estimated ERs	1,862,700
Total number of crediting years	10
Average annual ERs	186,270

1.8 Description of the Project Activity

Not Applicable

1.9 Project Location

Project Sky is located in the state of Maharashtra, within the Satara district, about 350 kms to the south of Mumbai. Approach roads are available from Bangalore-Pune National Highway no 4, from Pune 165 km to Karad and a further 45km up to the project site at Sahayadri via the Karad – Patan state highway. The precise geo-coordinates of the WTGs are as follows
The latitude and longitude of project activity is as below

Sr. No	Location No	Coordinate in Lat/Long		Date of Commissioning
		Latitude	Longitude	
1	Location No 1	N17 17 42.4	E73 46 33.3	Yet to Commission
2	Location No 2	N17 17 51.2	E73 46 32.5	
3	Location No 3	N17 17 59.8	E73 46 32.3	
4	Location No 21	N17 18 19.7	E73 47 02.1	
5	Location No 24	N17 18 36.8	E73 46 59.5	
6	Location No 29	N17 19 08.7	E73 47 31.3	
7	Location No 30	N17 19 09.1	E73 47 48.7	
8	Location No 33	N17 19 18.1	E73 47 27.0	
9	Location No 35	N17 18 59.5	E73 47 54.8	
10	Location No 36	N17 19 06.7	E73 48 09.0	
11	Location No 44	N17 19 00.2	E73 48 37.4	
12	Location No 53	N17 18 40.9	E73 48 53.1	
13	Location No 54	N17 18 48.5	E73 48 57.0	
14	Location No 59	N17 18 32.6	E73 49 17.6	
15	Location No 60	N17 18 40.6	E73 49 20.4	
16	Location No 39	N17 19 50.4	E73 48 40.3	
17	Location No 57	N17 19 12.7	E73 49 08.7	
18	Location No 58	N17 19 22.7	E73 49 15.5	
19	Location No 4	N17 18 18.2	E73 47 19.8	01/01/2014
20	Location No 5	N17 19 52.2	E73 48 58.8	02/07/2013
21	Location No 6	N17 19 37.4	E73 48 50.2	02/07/2013
22	Location No 7	N17 18 56.2	E73 49 19.9	02/07/2013
23	Location No 8	N17 18 43.3	E73 46 48.0	22/04/2013
24	Location No 9	N17 18 49.6	E73 46 37.0	22/02/2013
25	Location No 10	N17 18 56.3	E73 46 42.8	22/02/2013
26	Location No 11	N17 19 02.3	E73 46 49.5	22/02/2013

27	Location No 12	N17 19 09.8	E73 46 53.0	22/02/2013
28	Location No 13	N17 19 16.1	E73 46 59.4	22/02/2013
29	Location No 14	N17 19 22.5	E73 47 05.5	10/05/2013
30	Location No 15	N17 19 28.6	E73 47 12.8	06/03/2013
31	Location No 16	N17 19 34.8	E73 47 19.5	22/04/2013
32	Location No 17	N17 19 39.8	E73 47 28.0	10/05/2013
33	Location No 18	N17 19 00.7	E73 49 33.5	28/05/2013
34	Location No 19	N17 19 30.8	E73 47 35.6	06/03/2013
35	Location No 20	N17 19 36.6	E73 47 45.0	22/04/2013
36	Location No 22	N17 18 26.1	E73 47 14.7	28/05/2013
37	Location No 23	N17 18 27.7	E73 47 27.0	28/05/2013
38	Location No 25	N17 18 45.3	E73 47 00.6	06/03/2013
39	Location No 26	N17 18 53.0	E73 47 04.7	10/05/2013
40	Location No 27	N17 18 59.8	E73 47 10.7	06/03/2013
41	Location No 28	N17 19 06.7	E73 47 18.1	06/03/2013
42	Location No 31	N17 18 56.4	E73 50 01.9	13/06/2013
43	Location No 32	N17 18 33.6	E73 48 31.8	26/10/2013
44	Location No 34	N17 18 10.1	E73 47 24.3	28/05/2013
45	Location No 37	N17 18 41.0	E73 48 37.3	28/05/2013
46	Location No 38	N17 19 44.8	E73 47 37.7	22/04/2013
47	Location No 40	N17 19 39.7	E73 48 33.6	13/02/2014
48	Location No 41	N17 19 44.9	E73 48 56.0	28/05/2013
49	Location No 42	N17 19 31.8	E73 49 09.3	07/07/2013
50	Location No 43	N17 18 54.7	E73 47 25.7	22/04/2013
51	Location No 45	N17 19 08.6	E73 48 40.5	13/06/2013
52	Location No 46	N17 19 16.4	E73 48 43.0	28/05/2013
53	Location No 47	N17 19 19.9	E73 48 52.8	13/06/2013
54	Location No 48	N17 19 27.6	E73 48 59.3	13/06/2013
55	Location No 49	N17 18 50.6	E73 47 56.6	01/01/2014
56	Location No 50	N17 18 20.0	E73 48 54.6	13/02/2014
57	Location No 51	N17 18 25.2	E73 48 47.2	13/02/2014
58	Location No 52	N17 18 31.6	E73 48 53.1	01/01/2014
59	Location No 55	N17 18 57.1	E73 49 02.3	28/05/2013
60	Location No 56	N17 19 04.4	E73 49 07.2	01/01/2014
61	Location No 61	N17 18 48.5	E73 49 22.2	07/07/2013
62	Location No 62	N17 18 49.0	E73 49 40.0	01/01/2014
63	Location No 63	N17 18 52.9	E73 49 51.8	28/05/2013

The project location details are as below

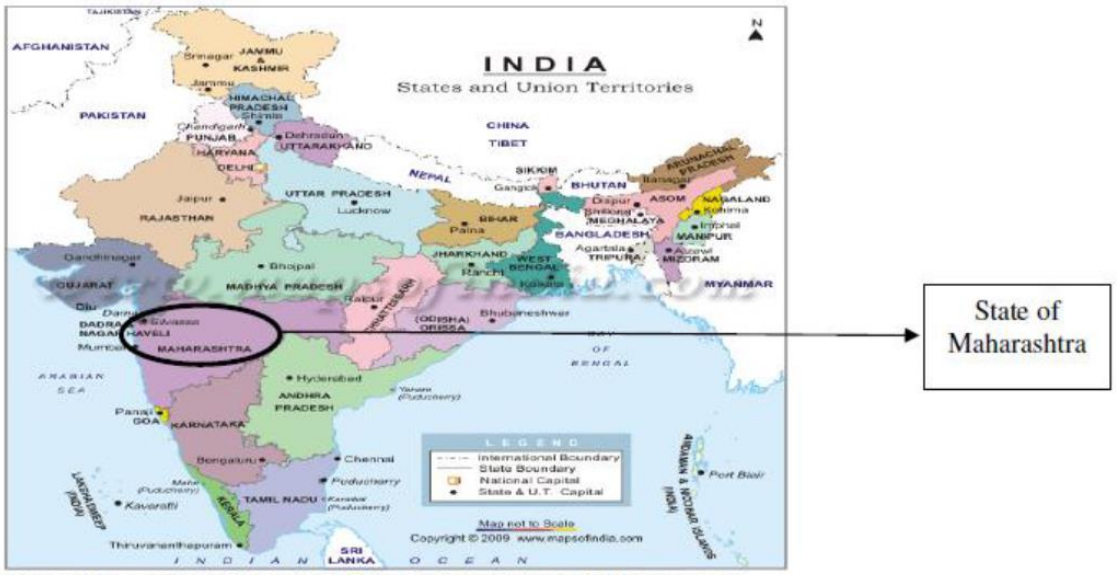

Fig 1: Map of India indicating the location of state of Maharashtra

Fig 2: District map of state of Maharashtra

1.10 Conditions Prior to Project Initiation

This is a Greenfield project. The project activity replaces the carbon intensive grid electricity. The proposed project activity effectively utilises renewable solar energy to generate electricity which will be feed into the coal intensive NEWNE Grid. Thereby the project activity reduces the dependence on fossil fuel based generation units and as there are no associated emissions with this project it contributes to the reduction of greenhouse gases (GHG) emissions.

Please refer section B.4 of the registered PDD. The web link for the same is mentioned below

https://cdm.unfccc.int/Projects/DB/LRQA%20Ltd1354531234.95/view

1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks

Not Applicable

1.12 Ownership and Other Programs

1.12.1 Project Ownership

For the ownership details of the project any of the following may be referred to:

1. Power Purchase Agreement between the project promoters and State Utility.
2. Commissioning certificates

1.12.2 Emissions Trading Programs and Other Binding Limits

The project is registered under CDM and UNFCCC[1] (Registration ID - 8524). The project is also approved by the DNA and a copy of the approval is also submitted to the DOE. Project Proponent has submitted undertaking that they will not claim same GHG emission reductions of the project from CDM and VCS. PP would not use net GHG emission reductions by the projects for compliance with emission trading program to meet binding limits on GHG emissions

1.12.3 Other Forms of Environmental Credit

Project has been registration with UNFCCC under Clean Development Mechanism program.

Registration reference number is 8524. Project Proponent has submitted undertaking for not availing other forms of environmental credit for the same crediting period under consideration

1.12.4 Participation under Other GHG Programs

Project has been registration with UNFCCC under Clean Development Mechanism program,

[1] https://cdm.unfccc.int/Projects/DB/LRQA%20Ltd1354531234.95/view

Registration reference number is 8524. PP also submitted undertaking that for current monitoring period for Project neither has not intends to generate any form of GHG related environmental credit for GHG emission reductions or removals claimed under the VCS program

1.12.5 Projects Rejected by Other GHG Programs

Not Applicable

1.13 Additional Information Relevant to the Project

Eligibility Criteria

The project does not fall under Grouped project category, hence not applicable.

Leakage Management

Project does not involve any leakage emissions as this is wind power project, Hence Leakage Management Plan and risk mitigation measures are not required.

Commercially Sensitive Information

There is no commercially sensitive information that has been excluded from the public version of the project description.

Sustainable Development

Contribution to sustainable development:

Ministry of Environment and Forests, 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.

- **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 VCS benefits the project activity will also help to reduce the demand supply gap in the state.

  The project activity will generate power using zero emissions solar 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.

- **Technological well-being:** The successful operation of project activity would lead to promotion of solar based power generation and would encourage other entrepreneurs to participate in similar projects

- **Environmental well-being**: Solar being a renewable source of energy, it reduces the dependence on fossil fuels and conserves natural resources which are on the verge of depletion. Due to its zero emission the project activity also helps in avoiding significant amount of GHG emissions.

Further Information

Not Applicable

2 APPLICATION OF METHODOLOGY

2.1 Title and Reference of Methodology

Not Applicable

2.2 Applicability of Methodology

Not Applicable

2.3 Project Boundary

Not Applicable

2.4 Baseline Scenario

Not Applicable

2.5 Additionality

Not Applicable

2.6 Methodology Deviations

Not Applicable

3 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

3.1 Baseline Emissions

Not Applicable

3.2 Project Emissions

Not Applicable

3.3 Leakage

Not Applicable

3.4 Net GHG Emission Reductions and Removals

Not Applicable

4 MONITORING

4.1 Data and Parameters Available at Validation

Not Applicable

4.2 Data and Parameters Monitored

Not Applicable

4.3 Monitoring Plan

Not Applicable

5 SAFEGUARDS

5.1 No Net Harm

Not Applicable

5.2 Environmental Impact

Not Applicable

5.3 Local Stakeholder Consultation

Not Applicable.

5.4 Public Comments

Not Applicable.

APPENDIX X: <TITLE OF APPENDIX>

Not Applicable.