

# GREEN ENERGY PROJECT AT KUTCH BY POWERICA LIMITED



A Promise For Power

Document Prepared By

POWERICA LIMITED

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|----------------------|--|
| <b>Project Title</b> | Green Energy Project at Kutch by Powerica Limited  |
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**1 PROJECT DETAILS**

**1.1 Summary Description of the Project**

NA

**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 | <b>Powerica Limited</b>  |
| Contact person    | <b>Aamir Qazi</b>  |
| Title             | (General Manager - Wind Div.)  |
| Address           | Godrej Coliseum, 9th flr., C wing,<br>Sion-Trombay Road, Sion (E), Mumbai 400022 |
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**1.4 Other Entities Involved in the Project**

NA

**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 Scale and Estimated GHG Emission Reductions or Removals

| Project Scale |   |
|---------------|---|
| Project       | ✓ |
| Large Project |   |

| Year                                   | Estimated GHG emission reductions or removals (tCO <sub>2</sub> e) <sup>1</sup> |
|--|---|
| Year 1                                 | 53,122  |
| Year 2                                 | 53,122  |
| Year 3                                 | 53,122  |
| Year 4                                 | 53,122  |
| Year 5                                 | 53,122  |
| Year 6                                 | 53,122  |
| Year 7                                 | 53,122  |
| <b>Total estimated ERs</b>             | <b>371,851</b>  |
| <b>Total number of crediting years</b> | <b>7</b>  |
| <b>Average annual ERs</b>              | <b>53,122</b>   |

### 1.8 Description of the Project Activity

NA

### 1.9 Project Location

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

| WTG ID | WTG 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° 12' 12"   | 70° 37' 12"    |
| NM82-4 | VWT/1800/11-12/2135 | Vandhiya | Kutch, Gujarat     | 23° 12' 5"    | 70° 35' 19"    |

<sup>1</sup> These details are sourced from the registered CDM PDD. The length of crediting years provided here is that for CDM.

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

### 1.10 Conditions Prior to Project Initiation

The project activity is the installation of a new wind power plant. This project is not a modification/ retrofit of any existing electricity generation facility and is a green filed project activity. Thus, the project has not been implemented to generate GHG emissions for the purpose of their subsequent reduction, removal or destruction. In accordance to the approved methodology ACM0002, Version 12.3.0, the baseline scenario for new installation facility is described as:

“Electricity delivered to the grid by the project would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system.”

Thus, the baseline scenario for this project activity is the same as the conditions existing prior to the project initiation.

### 1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks

NA

## **1.12 Ownership and Other Programs**

### **1.12.1 Right of Use**

The project solely belongs to Powerica Limited and no other project proponent is involved in the project. Evidences, e.g. Commissioning certificates and Power Purchase Agreements are submitted to the DoE to substantiate the same.

### **1.12.2 Emissions 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.

### **1.12.3 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.

### **1.12.4 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.

### **1.12.5 Projects Rejected by Other GHG Programs**

NA

## **1.13 Additional Information Relevant to the Project**

### **Eligibility Criteria**

Not applicable as the project activity is not a grouped project activity.

### **Leakage Management**

Not applicable as wind based electricity generation is not associated with any kind of leakages. Also, as per ACM0002 Version 13.3.0, no leakage has been considered for the calculation of emission reduction.

### **Commercially Sensitive Information**

The documents provided to the DoE do not contain any commercially sensitive information.

**Further Information****Legislative**

- There is no additional legal or regulatory requirement for setting up wind power projects.

**Technical**

- Increased interest in wind energy projects will further push R&D efforts by technology providers to develop more efficient and better equipment in future.

**Economic**

- The project activity requires temporary and permanent, skilled and semi-skilled manpower at the wind farm; this will create additional employment opportunities.
- The generated electricity will be fed to the NEWNE regional grid through the local grid, thereby improving grid frequency and availability of electricity to the local consumers (villagers & sub-urban habitants), which will provide new opportunities for industries and other economic activity to be setup in the area resulting in greater local employment and overall development.

**Sectoral**

- The project activity falls under Sectoral Scope 1, Energy Industries (Renewable/Non-Renewable Sector).
- The project activity is Greenfield renewable grid connected generation facility that will displace electricity from grid connected generating stations.

**Social**

- The project activity has led to the development of supporting infrastructure such as road network etc., in the wind farm location, which also provides better access for the local population.
- Use of a renewable source of energy reduces dependence on imported fossil fuels variation thereby leading increased energy security.

**Environmental**

- The project activity involves use of renewable energy source for electricity generation instead of fossil fuel based electricity generation, thereby reducing emission reductions.
- Being a renewable resource, using wind energy to generate electricity contributes to resource conservation. Thus the project causes no negative impact on the surrounding environment and contributes towards environmental wellbeing.

**2 APPLICATION OF METHODOLOGY**

**2.1 Title and Reference of Methodology**

NA

**2.2 Applicability of Methodology**

NA

**2.3 Project Boundary**

NA

**2.4 Baseline Scenario**

NA

**2.5 Additionality**

NA

**2.6 Methodology Deviations**

NA

**3 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS**

**3.1 Baseline Emissions**

NA

**3.2 Project Emissions**

NA

**3.3 Leakage**

NA

**3.4 Net GHG Emission Reductions and Removals**

NA

**4 MONITORING**

**4.1 Data and Parameters Available at Validation**

NA

**4.2 Data and Parameters Monitored**

NA

**4.3 Monitoring Plan**

NA

**5 ENVIRONMENTAL IMPACT**

NA

**6 STAKEHOLDER COMMENTS**

NA

**APPENDIX 1: LIST OF ABBREVIATION**

|        |  |
|--------|--|
| PDD    | Project Design Document                              |
| GHG    | Green House Gas                                      |
| UNFCCC | United Nation Framework Convention on Climate Change |
| WTG    | Wind Turbine Generator                               |
| DoE    | Designated operational Entity                        |
| NEWNE  | Northern, Eastern, Western and North-Eastern grids   |
| PD     | Project Description                                  |
| PDD    | Project Design Document                              |
| VCS    | Verified Carbon Standard                             |