

25.5 MW WIND ENERGY FARM AT NANDURBAR MAHARASHTRA BY HZL

Document Prepared By

Hindustan Zinc Limited

Contact Information

Mr. Bhagwan Lal Ahuja

Hindustan Zinc Limited

CPP-CLZS

Chanderiya Lead Zinc Smelter, Putholi

Chittorgarh-312021, Rajasthan

Phone: +91 -9799190066

Email: Bhagwan.ahuja@vedanta.co.in

Website:-www.hzlindia.com

Project Title	25.5 MW Wind Energy Farm at Nandurbar Maharashtra by HZL
Version	02.1
Date of Issue	03-December-2013
Prepared By	Bhagwan Lal Ahuja
Contact	AGM (CDM Cell) CPP-CLZS Chanderiya Lead Zinc Smelter Putholi Chittorgarh-312021 Rajasthan INDIA Mob:-91-9799190066 Tele +91-1472-257950 Email: Bhagwan.ahuja@vedanta.co.in Website:- www.hzlindia.com

Table of Contents

Section no.	NAME	PAGE NO.
1	PROJECT DETAILS	3
2	APPLICATION OF METHODOLOGY	8
3	QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS	8
4	MONITORING	8
5	ENVIRONMENTAL IMPACT	8
6	STAKEHOLDER COMMENTS	8

1 PROJECT DETAILS

1.1 Summary Description of the Project

Hindustan Zinc Ltd. (HZL), a vertically integrated natural resources enterprise, headquartered at Udaipur, Rajasthan having broad operations ranging from exploration, mining, and ore processing to smelting of non-ferrous metals is the owner and project proponent of the proposed project activity.

The project activity primarily aims at reducing Green House Gas (GHG) emissions through utilization of renewable energy technology for generation of electrical energy. The electricity generated from the project activity (approximately 45,033 MWh annually) will displace equivalent electricity generation in grid connected power plants. The project activity will reduce the anthropogenic GHG emissions (approximately 42,912 tCO₂ annually) associated with the equivalent amount of electricity generation from the fossil fuel based grid connected power plants.

Please refer section A.1 of the registered PDD. The web link for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/DNV-CUK1351776938.73/view>

1.2 Sectoral Scope and Project Type

According to the categorization system of the Clean Development Mechanism, which is part of Green House Gas (GHG) program that has been approved by the VCS board, the project is categorized as:

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

Project Type: Renewable Energy projects

Project category: - The project is not a Agriculture Forestry and Other Land Use project activity.

This is not a grouped project. Please refer Title page of the registered PDD. The web link for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/DNV-CUK1351776938.73/view>

1.3 Project Proponent

Organization name	Hindustan Zinc Limited
Contact person	Mr. Bhagwan Lal Ahuja
Title	AGM (CDM Cell)
Address	CPP-CLZS Chanderiya Lead Zinc Smelter Putholi Chittorgarh-312021 Rajasthan INDIA
Telephone	+91-1472-257950
Email	Bhagwan.ahuja@vedanta.co.in

1.4 Other Entities Involved in the Project

Not applicable

1.5 Project Start Date

02/09/2011, date of commissioning of first WTG

1.6 Project Crediting Period

Project activity has Renewable crediting period of 21 years for the CDM project.

Start date of crediting period for VCS verification: 02/09/2011 (Date of commissioning of first WTG)

End date of crediting period for VCS verification: 26/12/2012 (Date one day prior to the start date of crediting period of CDM project activity)

1.7 Project Scale and Estimated GHG Emission Reductions or Removals

The crediting period for the project is 02nd September 2011 to 26th December 2012. Please refer Section A.6.3 of the registered PDD. The web link for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/DNV-CUK1351776938.73/view>

Project Scale	
Project	Project activity falls under this category as estimated GHG emission reduction are below 300,000 tones of CO ₂ e per year as shown in below table.
Large project	Not applicable

Years	Estimated GHG emission reductions or removals (tCO ₂ e)
Year 1 (2011)	4321.10
Year 2 (2012)	57608.94
Total estimated ERs	61 930
Total number of crediting years	2
Average annual ERs	42912

1.8 Description of the Project Activity

Please refer section A.1 of the registered PDD. The web link for the same is mentioned below:

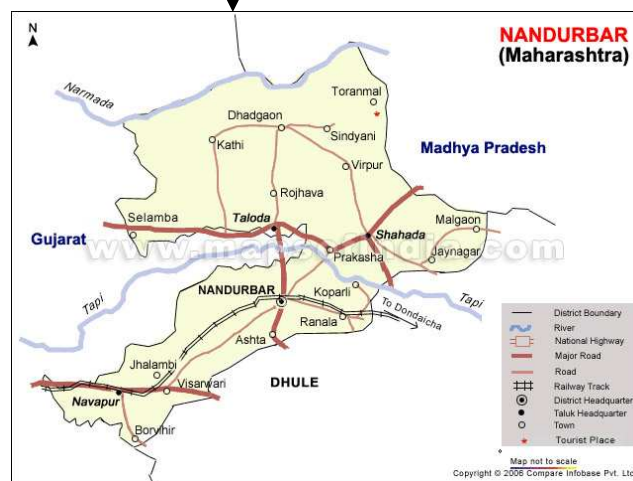
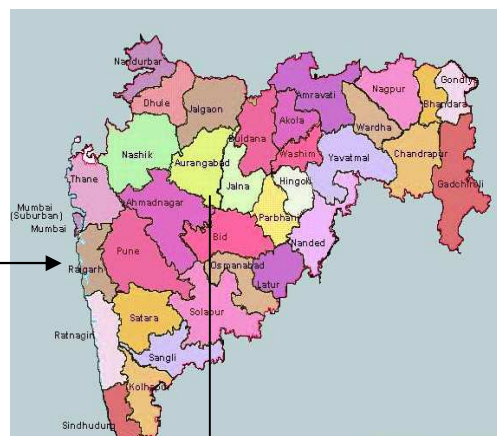
<http://cdm.unfccc.int/Projects/DB/DNV-CUK1351776938.73/view>

1.9 Project Location

The project activity consists of seventeen 1.5 MW wind turbines in the district of Nandurbar in the state of Maharashtra, India. The nearest railway station to Nandurbar is Nandurbar railway station and nearest airport is situated at Nasik which is 188 Kms from Nandurbar.

Details of the location of the project activity:

Sr. No.	WTG. No.	Latitude	Longitude
1	C-02	21°18'10"N	74°18'32"E
2	C-03	21°17'55"N	74°18'28"E
3	C-04	21°17'17"N	74°18'16"E
4	C-05	21°17'30"N	74°18'32"E
5	C-06	21°17'47"N	74°18'09"E
6	C-07	21°17'59"N	74°18'05"E
7	C-18	21°17'14"N	74°17'51"E
8	C-19	21°17'29"N	74°17'51"E
9	C-20	21°17'43"N	74°17'49"E
10	C-26	21°18'47"N	74°17'09"E
11	C-27	21°18'54"N	74°16'51"E
12	C-28	21°17'31"N	74°17'05"E
13	C-29	21°17'38"N	74°16'56"E
14	C-30	21°17'25"N	74°16'42"E
15	C-32	21°17'17"N	74°16'10"E
16	C-37	21°15'45"N	74°19'33"E
17	C-67	21°15'06"N	74°16'20"E



1.10 Conditions Prior to Project Initiation

This is a Greenfield project. The project activity replaces the carbon intensive grid electricity. Thereby reducing the dependence on fossil fuel based generation units and as there are no associated emissions with this project it contributes to the reduction of green house gases (GHG) emissions.

Please refer section A.1 and B.4 of the registered PDD. The web link for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/DNV-CUK1351776938.73/view>

1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks

The project activity is not mandated by any local or national laws. Please refer UNFCCC registered CDM project with Ref No: 7981

1.12 Ownership and Other Programs

1.12.1 Right of Use

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

- Commissioning certificates issued by the Maharashtra State Electricity Distribution Co. Ltd.
- Power purchase agreement issued by the Maharashtra State Electricity Distribution Co. Ltd.

1.12.2 Emissions Trading Programs and Other Binding Limits

This project activity is voluntary initiative of HZL and it is not to meet any local laws or regulatory compliances. HZL has submitted an undertaking that they shall not claim for GHG emission reduction credits for the given period (20/10/11 – 30/11/12) under any other emission trading program.

1.12.3 Participation under Other GHG Programs

The project activity under consideration here has already been registered under the Clean Development Mechanism of UNFCCC. The requisite details are provided below:

CDM Project Reference # - 7981

Project Title: **25.5 MW Wind energy farm at Nandurbar, Maharashtra by HZL**

<http://cdm.unfccc.int/Projects/DB/DNV-CUK1351776938.73/view>

Project Proponent: Hindustan Zinc Limited

1.12.4 Other Forms of Environmental Credit

The project activity generates Carbon Credits under Clean Development Mechanism (Ref.No:7981) from 27/12/2012 ; however the VCUs that are claimed are from the date of commissioning till 26/12/2012 since, the project is registered on 27/12/2012 and the crediting period under CDM starts only on 27/12/2012. Project proponent has submitted an undertaking to the VVB that they shall not claim for GHG emission reduction credits for the given period under any other emission trading program."

1.12.5 Projects Rejected by Other GHG Programs

This project has not been rejected by any other GHG program. It is registered CDM project and the emission reductions are being claimed for the pre-registration period.

1.13 Additional Information Relevant to the Project

Eligibility Criteria

This is not a grouped project hence the criteria is not applicable.

Leakage Management

No leakage emissions are considered for this Project activity since no energy generating equipment is transferred from another activity and/or the existing equipment is transferred to another activity.

Please refer section B.6.1 of the registered PDD. The web link for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/DNV-CUK1351776938.73/view>

Commercially Sensitive Information

There is no such information which is deemed as commercially sensitive.

Further Information

There is no additional relevant legislative, technical, economic, sectoral, social, environmental, geographic, site-specific and/or temporal information that may have a bearing on the eligibility of the project, the net GHG emission reductions or removals, or the quantification of the project's net GHG emission reductions or removals.

2 APPLICATION OF METHODOLOGY

2.1 Title and Reference of Methodology

2.2 Applicability of Methodology

2.3 Project Boundary

2.4 Baseline Scenario

2.5 Additionality

2.6 Methodology Deviations

3 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

3.1 Baseline Emissions

3.2 Project Emissions

3.3 Leakage

3.4 Summary of GHG Emission Reductions and Removals

4 MONITORING

4.1 Data and Parameters Available at Validation

4.2 Data and Parameters Monitored

Data / Parameter	
Data unit	
Description	
Source of data	
Description of measurement methods and procedures to be applied	
Frequency of monitoring/recording	
Value applied:	
Monitoring equipment	
QA/QC procedures to be applied	
Purpose of data	
Calculation method	
Comments	

Data / Parameter	
Data unit	
Description	
Source of data	
Description of measurement methods and procedures to be applied	
Frequency of monitoring/recording	
Value applied:	
Monitoring equipment	
QA/QC procedures to be applied	
Purpose of data	

Calculation method	
Comments	

Data / Parameter	
Data unit	
Description	
Source of data	
Description of measurement methods and procedures to be applied	
Frequency of monitoring/recording	
Value applied:	
Monitoring equipment	
QA/QC procedures to be applied	
Purpose of data	
Calculation method	
Comments	

4.3 Description of the Monitoring Plan

5 ENVIRONMENTAL IMPACT

6 STAKEHOLDER COMMENTS

For all the above sections please refer UNFCCC Ref No: 7981.

<http://cdm.unfccc.int/Projects/DB/DNV-CUK1351776938.73/view>