

CERRO DE HULA WIND PROJECT



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Table of Content

1	Project Details	3
1.1	Summary Description of the Project	3
1.2	Sectoral Scope and Project Type.....	3
1.3	Project Proponent	3
1.4	Other Entities Involved in the Project.....	4
1.5	Project Start Date.....	4
1.6	Project Crediting Period	4
1.7	Project Scale and Estimated GHG Emission Reductions or Removals	5
1.8	Description of the Project Activity.....	5
1.9	Project Location	5
1.10	Conditions Prior to Project Initiation	7
1.11	Compliance with Laws, Statutes and Other Regulatory Frameworks.....	8
1.12	Ownership and Other Programs	8
1.12.1	Right of Use.....	8
1.12.2	Emissions Trading Programs and Other Binding Limits	8
1.12.3	Participation under Other GHG Programs	8
1.12.4	Other Forms of Environmental Credit	8
1.12.5	Projects Rejected by Other GHG Programs	9
1.13	Additional Information Relevant to the Project.....	9
2	Application of Methodology	10
2.1	Title and Reference of Methodology	10
2.2	Applicability of Methodology.....	10
2.3	Project Boundary.....	10
2.4	Baseline Scenario	10
2.5	Additionality	10
2.6	Methodology Deviations	10
3	Quantification of GHG Emission Reductions and Removals	10
3.1	Baseline Emissions	10
3.2	Project Emissions.....	10
3.3	Leakage.....	10
3.4	Summary of GHG Emission Reductions and Removals.....	10
4	Monitoring.....	11
4.1	Data and Parameters Available at Validation	11
4.2	Data and Parameters Monitored	11
4.3	Description of the Monitoring Plan	11
5	Environmental Impact.....	11
6	Stakeholder Comments.....	11

1 PROJECT DETAILS

1.1 Summary Description of the Project

The Project consists on the first wind farm interconnected to the National Interconnected System of Honduras, located in the Municipalities of Santa Ana and San Buenaventura, Department of Francisco Morazán, 24 Km South of Tegucigalpa.

The main objective of the Cerro de Hula Wind Project (hereafter, the “Project”) is to provide affordable electricity to the Honduran grid by means of a renewable, clean, and inexpensive (i.e. zero marginal cost) source: the wind. For this purpose, the project will make use of 51 GAMESA G87 – 2MW 60Hz wind turbines, for a total of 102 MW. The net power production provided to the national grid is expected to be approximately 345,970 MWh per year.

The CDM Project Design Document (CDM-PDD) is a part of the VCS documentation. As indicated in the VCS Standard (4 October 2012, version 3.3), only the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template will be completed herein. The reader may refer to the registered CDM-PDD (17 January 2012, version 8) for further information on the project such as baseline determination, additionality analysis, monitoring plan, environmental impacts and public stakeholder involvement.

1.2 Sectoral Scope and Project Type

Sectoral scope: 1 – Energy industries (renewable/non-renewable sources).

Project type: Renewable Energy

1.3 Project Proponent

The project is developed by Energía Eólica de Honduras, S.A. (EEHSA) (hereafter referred to as the “Project Developer”) a fully owned indirect subsidiary of Globeleq Mesoamerica Energy (GME).

Globeleq Mesoamerica Energy is a company dedicated to the development, construction and operation of renewable energy projects in Central America and adjacent region.

GME’s shareholders, Globeleq Generation Limited (Globeleq) an England company formed by the CDC and the Mesoamerica Power Group (Mesoamerica) which represent a group of prominent investors within the region, have the skills to add value across the whole chain of development, acquisition and financing of power assets.

Contact information is provided below.

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Represented by:	
Title:	President
Salutation:	Mr.
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1.4 Other Entities Involved in the Project

N/A

1.5 Project Start Date

Project start date is the date on which the Project began generating GHG emission reductions. As per the latter definition the Project start date of this project is 27/09/2011, which corresponds to the to the first trial operation of the project activity¹.

1.6 Project Crediting Period

The Expected operational lifetime of the project activity is at least 20 years². The project activity was successfully registered as CDM project activity (Ref. N. 5584) on 24/04/2012, applying for a 10 years fixed period that goes from 24/04/2012 to 23/04/2022. Thus, the crediting period for VERs is from 27/09/2011 to 23/04/12 (including both two dates) in order to avoid overlapping of GHG programmes.

¹ The plant started commercial operations since 21/12/2011.

² Information from tech provider: "Growing with the wind" (Brochure from GAMESA)

1.7 Project Scale and Estimated GHG Emission Reductions or Removals

Project	X
Large project	

Years	Estimated GHG emission reductions or removals (tCO ₂ e)
27/09/2011 - 23/04/12	132,404
Total estimated ERs	132,404
Total number of crediting years	7 months (approx. 0.583 years)
Average annual ERs	226,978 ³

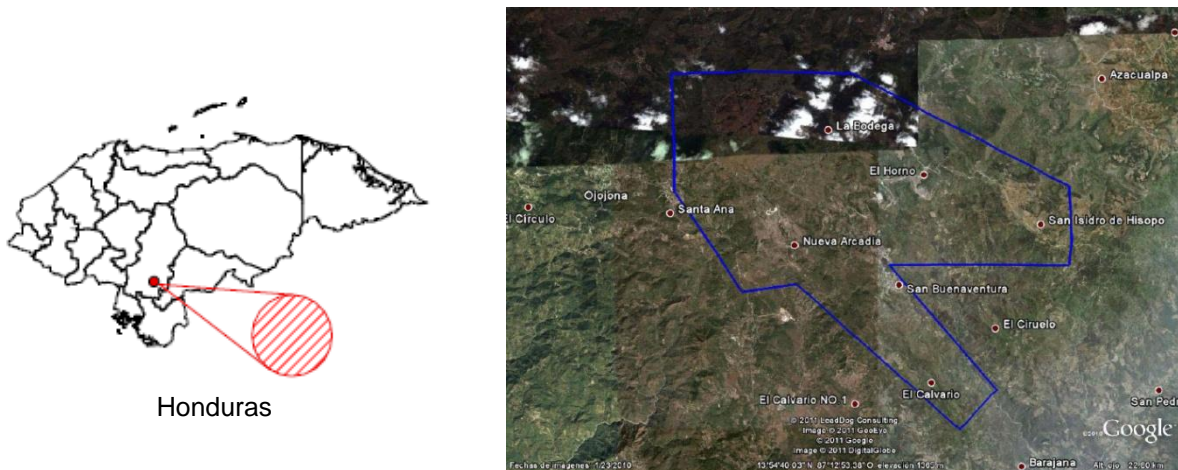
1.8 Description of the Project Activity

N/A

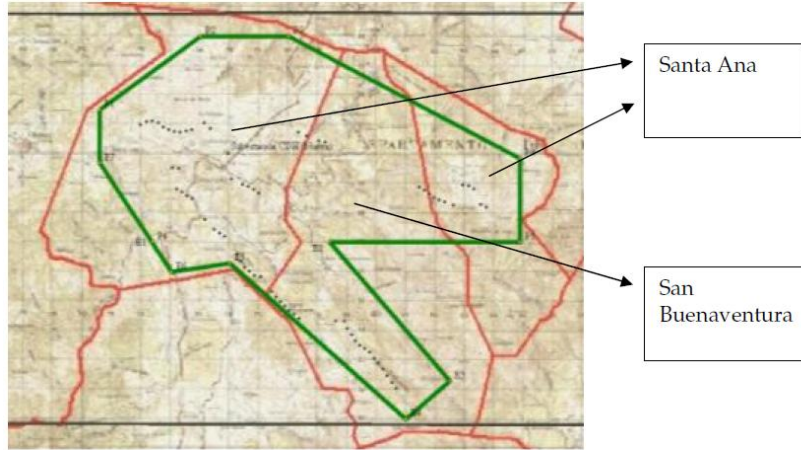
1.9 Project Location

The Project is located in Honduras, 24 km south of Tegucigalpa, Department Francisco Morazán, within the municipalities of Santa Ana and San Buenaventura, in the hills of Cerro de Hula and Izopo (See Figure 1).

Figure 1. Location of the Project



³ As per the registered PDD



The geographical coordinates of the project area are the following:

Table 2. Project Coordinates

AS BUILT COORDINATES - UTM WGS 84		
ID	X	Y
G87 1-01	472057	1541283
G87 1-02	472231	1541287
G87 1-03	472404	1541312
G87 2-01	473408	1540999
G87 2-02	473231	1541007
G87 2-03	473056	1541024
G87 2-04	472883	1541044
G87 2-05	472724	1541120
G87 2-06	472582	1541260
G87 3-01	474697	1540194
G87 3-02	474550	1540294
G87 3-03	474450	1540494
G87 3-04	474317	1540613
G87 3-05	474337	1541127
G87 3-06	474158	1541201
G87 3-07	474026	1541356
G87 4-01	471726	1540388
G87 4-02	471536	1540452
G87 5-01	472816	1540044
G87 5-02	473000	1539907
G87 5-03	473124	1539750
G87 6-01	475008	1539428
G87 6-02	475175	1539339
G87 6-03	475334	1539246

G87 6-04	475482	1539145
G87 6-05	475757	1538877
G87 6-06	475932	1538806
G87 7-01	475713	1539685
G87 7-02	475891	1539533
G87 8-01	477289	1540688
G87 8-02	477460	1540649
G87 8-03	477633	1540593
G87 8-04	477842	1540607
G87 8-05	478042	1540643
G87 8-06	478223	1540636
G87 8-07	478399	1540528
G87 8-08	478668	1540503
G87 9-01	482788	1538498
G87 9-02	482614	1538518
G87 9-03	482420	1538546
G87 9-04	482252	1538593
G87 9-05	482088	1538654
G87 9-06	481930	1538729
G87 9-07	481776	1538812
G87 9-08	481648	1538930
G87 9-09	481479	1539000
G87 10-01	483191	1538990
G87 10-02	483346	1538900
G87 10-03	483389	1538658
G87 10-04	483428	1538481
G87 10-05	483558	1538348

1.10 Conditions Prior to Project Initiation

Prior to the implementation of the Project, energy was provided by existing plants or new additions to the grid that rely mostly on fossil fuels for their operation, as the Honduras grid has an estimated CO2 emission factor of 0.6561 tCO2/MWh.

The project activity consists of the installation of a renewable electricity generation plant (wind farm) that will be installed at a site where no renewable power plant was operated previously. The electricity generated will be dispatched to the Grid. As the Project is a wind farm no greenhouse gas emissions (GHG) from the Project have to be considered according to ACM0002, hence this Project would not generate GHG emissions for the purpose of their subsequent reduction as wind energy is an environmental-friendly, zero emissions technology.

Activities occurring prior to the implementation of the wind farm, such as farming, corn plantation and cattle, will continue to take place even after the Project is commissioned as the wind turbine generators do not affect typical land-use.

1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks

N/A

1.12 Ownership and Other Programs

1.12.1 Right of Use

The generation license issued to the Project owner (Energía Eólica de Honduras S.A.) is provided to demonstrate the ownership of the project. The national Letter of Approval (LoA), issued on 05/08/2011 by the Secretary of Natural Resources and Environment (SERNA⁴) of Honduras, for the Project under the same name is also provided for reference.

1.12.2 Emissions Trading Programs and Other Binding Limits

The proposed Project will be sequentially registered in the VCS and the CDM. As the VCS crediting period ends the day before CDM registration, no overlapping of GHG Programs will occur.

The Republic of Honduras does not participate in emissions trading programs such as the EU ETS nor does it have binding limits for GHG emissions (Honduras is a non-Annex I country within the Kyoto Protocol).

1.12.3 Participation under Other GHG Programs

The proposed Project will be sequentially registered in the VCS and the CDM. The VCS crediting period runs from from 27/09/2011 to 23/04/12 (including both two dates). The CDM crediting period is 24/04/2012 - 23/04/2022 (fixed) and thus no overlapping of GHG Programs will occur. The project's registration date is 24/04/2012 and registration number is 5584⁵.

1.12.4 Other Forms of Environmental Credit

No other forms of environmental credit will be requested for this project.

⁴ Secretaria de Recursos Naturales y Ambiente

⁵ <http://cdm.unfccc.int/Projects/DB/PJR%20CDM1324448058.56/view>

1.12.5 Projects Rejected by Other GHG Programs

N/A

1.13 Additional Information Relevant to the Project

Eligibility Criteria

The project activity consists of the installation of a renewable electricity generation plant (wind project) that will be installed at a site where no renewable power plant was operated previously. The electricity generated will be dispatched to the Honduran grid.

The Project uses CDM's methodology "ACM0002: "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (Version 12.2.0, EB 65)", which is applicable as:

- The project activity involves the installation of a wind power plant with an installed capacity of 102 MW.
- Project activity is not a capacity addition, retrofit or modification of an existing power plant.
- The project activity does not involve switching from fossil fuels to renewable energy at the site of the project activity; it is neither a biomass fired power plant nor a hydro plant.

Leakage Management

As per the CDM's methodology (ACM0002 v.12.2.0) applied for this project, no leakage emissions take place for wind power plants.

Commercially Sensitive Information

All the information submitted for CDM validation/registration is also available for the VCS.

Further Information

N/A

2 APPLICATION OF METHODOLOGY

2.1 Title and Reference of Methodology

N/A

2.2 Applicability of Methodology

N/A

2.3 Project Boundary

N/A

2.4 Baseline Scenario

N/A

2.5 Additionality

N/A

2.6 Methodology Deviations

N/A

3 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

3.1 Baseline Emissions

N/A

3.2 Project Emissions

N/A

3.3 Leakage

N/A

3.4 Summary of GHG Emission Reductions and Removals

N/A

4 MONITORING

4.1 Data and Parameters Available at Validation

N/A

4.2 Data and Parameters Monitored

N/A

4.3 Description of the Monitoring Plan

N/A

5 ENVIRONMENTAL IMPACT

N/A

6 STAKEHOLDER COMMENTS

N/A