



PERALTA I WIND POWER PROJECT

MONITORING REPORT

Document Prepared by Atlantica Sustainable Infrastructure Plc

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Prepared by	Atlantica Sustainable Infrastructure Plc

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PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The project activity encompasses the development (construction and O&M) of an onshore wind farm located at 280 km North from Montevideo, near the village of Peralta, Department of Tacuarembó (Uruguay). This wind farm consists of 25 wind turbines with 2 MW each, resulting in total installed capacity of 50 MW. The purpose of the project activity is to generate renewable electricity to the national grid of Uruguay. Generated electricity is dispatched to a first power substation located in the wind farm and then dispatched to a power substation called “Cuchilla Peralta” (owned by UTE and where generated electricity is measured) located at 50 m from the first substation. From there generated electricity is transmitted through a 30 km transmission line with 150kV voltage to the “Rincón de Bonete B” power station and then to the “Rincón the Bonete” power station where generated electricity is finally dispatched to the grid.

1.2 Audit History

The Peralta I wind farm started its commercial operation on 13-May-2014. During the monitoring period from 01-September-2020 to 28-February-2023, total GHG emissions reductions achieved by the project activity amounted to 184,207 tCO₂, as a result of displacement the electricity generated in fossil fuel fired power plants of the grid. Please refer to registered CDM-PDD section A.2 for further details.

The following table shows the audit history of the Project:

Audit Type	Period	Program	VVB Name	Number of years
Validation	01-November-2013 – 31-October-2020	CDM	TÜV	7
Validation	13-May-2014 – 12-May-2024	VCS	AENOR	10
Verification	13-May-2014 – 31-October-2015	VCS	AENOR	1,47
Verification	01-November-2015 – 31-August-2020	VCS	APPLUS CERTIFICATI ON	4,84
Verification	01-September-2020 -- 28-February-2023	VCS	AENOR	2,49

1.3 Sectoral Scope and Project Type

Sectoral scope ¹	1. VCS sectoral scope: Energy (renewable/non-renewable).
Project activity type	Approved consolidated baseline methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”; Version 13.0.0. The project activity is not a grouped project.

1.4 Project Proponent

Organization name	Palmatir S.A.
Contact person	Juan Ignacio Morán
Title	Country Manager (Uruguay)
Address	Luis Alberto de Herrera 1248, Torre 2, Piso 15, Oficina 1001. 11300 Montevideo. Uruguay
Telephone	+598 26224209
Email	juan.moran@atlantica.com

¹ Projects, activities, or methodologies may be developed under any of the 16 VCS sectoral scopes: <https://verra.org/programs/verified-carbon-standard/vcs-program-details/#sectoral-scopes>

1.5 Other Entities Involved in the Project

Organization name	Atlantica Sustainable Infrastructure Plc
Role in the project	Consultant
Contact person	Javier Llopis Cejudo
Title	Project Analyst Intern
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Telephone	Atlantica Sustainable Infrastructure Plc
Email	javier.llopis@atlantica.com

1.6 Project Start Date

Project start date	13-May-2014
Justification	Commercial Operation date

1.7 Project Crediting Period

Crediting period	☐ Seven years, twice renewable ☐ Ten years, fixed ☒ Other (The crediting period of the project will be 10 years. It will run from 13-May-2014 to 12-May-2024, extendable for another two 10 year periods)
Start and end date of first or fixed crediting period	13-May-2014 to 12-May-2024

1.8 Project Location

The Peralta I wind farm is located in the Peralta community, Region of Tacuarembó, Uruguay. The project activity is located 280 km north from Montevideo, going along the national road nº. 5. The nearest population centre is the “Caserío Cuchilla de Peralta” located approximately 12 km Northeast of the area of the entrepreneurship.

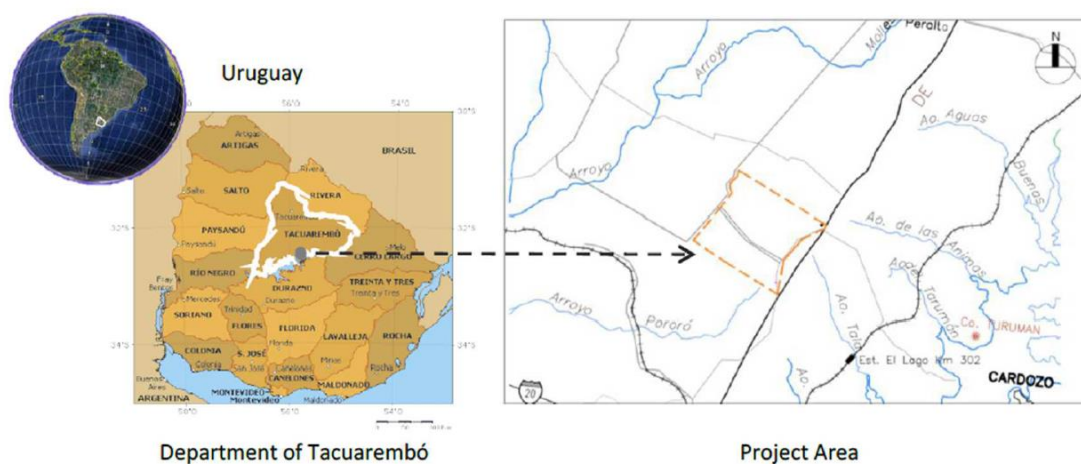


Figure 1. Location of project activity

The GPS coordinates of the project are the following:

Geographic coordinates	Decimal degrees	Longitude: 56.432097 W	Latitude: 32.570942 S
UTM Coordinates	X (East): 553306.78	Y (North): 6396134.61	Zone: 21

The Peralta I wind farm is located in the patterns No. 8,508, 11,088, 11,089, 12,501, 12,502 and 12,503, corresponding to the 10th Judicial Division of the Department of Tacuarembó. The coordinates in decimal degrees and the location of each turbine are the following:

Wind turbine reference	Decimal coordinates	
	Latitude S	Longitude W
1	32.57224516	56.4251441
2	32.57531186	56.42311105
3	32.57751306	56.42709207
4	32.56456084	56.43737914
5	32.56733033	56.4354018
6	32.57078844	56.43411244
7	32.57541122	56.43305003
8	32.57960646	56.43120182
9	32.58560836	56.43792959
10	32.58861001	56.43945583
11	32.59329735	56.44072663
12	32.59640163	56.44099505
13	32.60036957	56.44074663
14	32.58190941	56.44798891
15	32.58870331	56.45036595
16	32.5932179	56.45341784
17	32.56224453	56.45005865
18	32.56815572	56.45067239
19	32.57375923	56.45313108
20	32.57876039	56.45607314
21	32.55897022	56.46050642

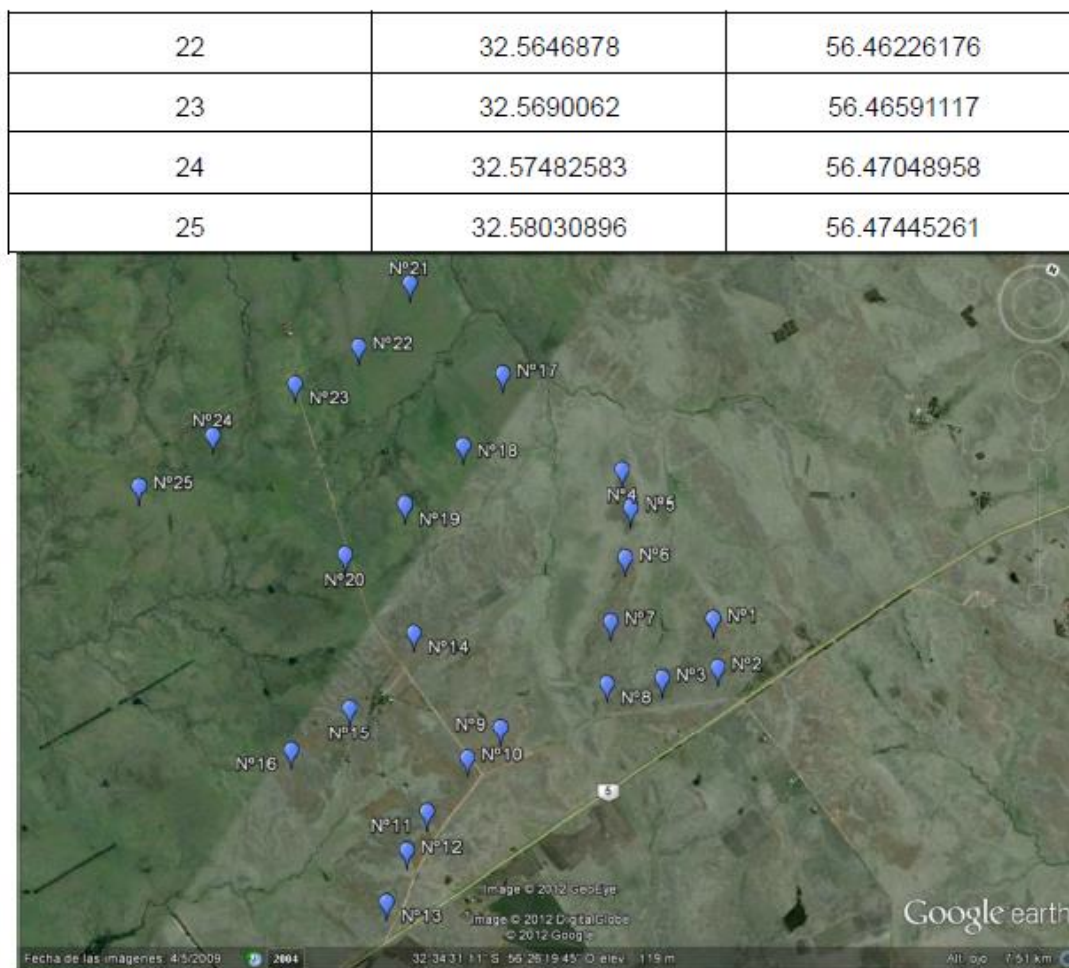


Figure 2. Specific location of the turbines

1.9 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	ACM0002	Consolidated baseline methodology for grid-connected electricity generation from renewable sources	13.0.0
Tool	-	Tool to calculate the emission factor for an electricity system	02.2.1
Tool	-	Tool for the demonstration and assessment of additionality	06.1.0

1.10 Double Counting and Participation under Other GHG Programs

1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

☐ Yes ☒ No

1.10.2 Registration in Other GHG Programs

Is the project registered or seeking registration under any other GHG programs?

☒ Yes ☐ No

Yes, the project is registered under the CDM scheme; In any case, all ER verifications since their inception have been made under VCS.

1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the *VCS Program Definitions* for definitions of emissions trading program and binding emission limit.

☐ Yes ☒ No

1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the *VCS Program Definitions* for definition of GHG-related environmental credit system.

☐ Yes ☒ No

1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☐ Yes ☒ No

1.12 Sustainable Development Contributions

No additional activities were implemented during the monitoring period. An explanation of how project activity results in the SD contributions described in Table 1 below:

Table 1: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	7.2	Renewable energy supplied to the power grid	Implemented activities to increase	354,927 MWh of electricity from renewable sources have been supplied to the power grid during the current monitoring period, replacing fossil fuel powered electricity	3,534,000 MWh in total was produced and delivered to the grid over project lifetime, according to 176,700 MWh/year, as indicated in the PDD.
2)	8.3	Provide job opportunities by implementation of the project	Implemented activities to increase	No jobs were created during this monitoring period	21 jobs (6 directly, 15 indirectly) in total were created during overall project lifetime.
3)	13.0	Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to increase	The project contributed to Emission Reductions amounting to 184,207 tCO ₂ e for this monitoring period	Total emission reductions for this project amount to 1,834,100 tCO ₂ e over project lifetime, according to 3,534,000 MWh estimated.

1.13 Commercially Sensitive Information

There is no commercially sound information

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

The affected population was identified prior to any environmental authorisation. In the SUMMARY ENVIRONMENTAL REPORT November 2011 IAR-Peralta 1.pdf. This report is published so that any interested party can have access to view it in accordance with decree 349- 005 Art.15 (Decreto 349-005 - Reglamento de Evaluación de Impacto Ambiental y Autorizaciones Ambientales.pdf).

Stakeholder Identification	Specialists in Socio-environmental Impacts carried out reports prior to the start of construction (IAR and EIA) to present to the authorities to obtain the necessary authorizations for the construction of the project. The regulations for environmental impact assessment and environmental authorisations are laid down in Decree 349-005 (Decreto 349-005 - Reglamento de Evaluación de Impacto Ambiental y Autorizaciones Ambientales.pdf). We seek out the nearest local communities.
Legal or customary tenure/access rights	Local communities are far from the project. There is a contract with the owner which is respected. Owners do not live in the wind park. The relevant specific aspects are set out in the Guidance (see link) for the environmental impact assessment of wind farms section 6. (20150701 Guia EIA Parques Eolicos Versión Final-1) www.gub.uy

Stakeholder diversity and changes over time	There was no change in any social group.
Expected changes in well-being	Section 5 IAR.
Location of stakeholders	Section 4.3 IAR. Local communities are far from the project The owners do not live there.
Location of resources	Section 4 IAR.

2.1.2 Stakeholder Consultation and Ongoing Communication

Ongoing consultation	The project has signs indicating an email address (wind@atlantica.com) and a contact telephone number 24/7 for complaints and suggestions with the local communities. A photo of the signage is shown below For the last AAO renewal it was signed by owners who had no claim. There is a complaints procedure, but to date it has not been used, as there have been no complaints made to the project.
Date(s) of stakeholder consultation	There have been no complaints/suggestions
Communication of monitored results	No consultations were presented before or during operation
Consultation records	The project has signs indicating an email address (wind@atlantica.com) and a contact telephone number for complaints and suggestions with the local communities..
Stakeholder input	There was no consultation and therefore the project was not modified or updated.

2.1.3 Free, Prior, and Informed Consent

Consent	There are no conflicts. The contract with owners is respected.
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	The consent of the communities is not direct, but the regulatory body, depending on compliance with regulations, gives or withholds prior AAP authorisation, such as for construction and operation. In other words, consent is given indirectly through the state body that oversees the affected communities.
Outcome of FPIC	There are no indigenous peoples in the affected area. There were no such impacts on the project..

2.1.4 Grievance Redress Procedure

Grievances received	Resolution and outcome
-	There have been no complaints
	...

2.1.5 Public Comments

Summary of comments received	Actions taken
	There have been no complaints
...	

2.2 Risks to Stakeholders and the Environment

	Risk identified	Mitigation or preventative measure taken
Risks to stakeholder participation	No risk identified	There is a mail to leave any suggestions and complaints
Working conditions	Risk identified	Health and Safety measures are taken according to atlantica HSEQ policy.

Safety of women and girls	No risk identified	There are no women in the project working
Safety of minority and marginalized groups, including children	No risk identified	Local communities are far from the project.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	Risks identified	There is a triannual plan issued to DINACEA where all these points are considered

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

Discrimination and sexual harassment	What we refer below is published in Atlantica Integrated Annual Report. Page 131 and page 143 We are committed to conducting our business in a manner that respects the rights and dignity of our employees and those linked to our activities, including our supply chain. We respect internationally recognised human rights, as set out in the International Bill of Human Rights, the International Labour Organisation's (ILO) Declaration Core Conventions and the OECD Due Diligence Guidance for Multinational Enterprises. Labour practices at Atlantica, including our employees and directors, are governed by our Human Rights Policy. This Policy aims to ensure respect for human rights in all our day-to-day activities – regardless of local practices –, implementing the commitments defined by our policies and international reference standards, directives and conventions, and establishing the procedures to ensure compliance with them. We also have a Code of Conduct, Supplier Code of Conduct, Corporate Governance Guidelines and an Anti-Bribery and Anti-Corruption Policy to identify and mitigate any type of violations of human rights that are linked to our operations, products or services and by our business relationships. These documents include specific sections on integrity, dignity, health and safety
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	and labour practices (including those of our suppliers), equal opportunities, non-discrimination, environmental protection (including environmental accidents that could affect our employees or subcontractors' employees and/or local communities), cybersecurity and data protection. In addition, we have a Diversity and Inclusion Policy to formalise our zero tolerance to discrimination against anyone based on any personal characteristic, such as ethnic background, culture, religion, age, disability, gender, marital status, sexual orientation, union membership, political affiliation, health, disability, pregnancy, or any other characteristic protected by law. We provide equal opportunities to all employees, including supportive and understanding workplace environments where employees feel welcomed, respected and listened to, and where they can realise their full potential regardless of their race, colour, sex, age, religion, ethnicity, nationality, or disability. We seek to provide a climate of confidence where employees can raise issues. Any behaviour which is not acceptable must be reported through the Ethical Mailbox that Atlantica has established to report any kind of abuse. Furthermore, we acknowledge the rights of workers to collectively bargain the terms and conditions of work as defined by international reference standards, directives and conventions. Collective bargaining refers to all negotiations which take place between the employer on the one hand, and one or more workers' organisations (trade unions), on the other, for determining working conditions and terms of employment or for regulating relations between employers and workers. Additional information on collective bargaining is disclosed in the People and Culture section We provide a work environment free of discrimination, intimidation and sexual and nonsexual harassment, where everyone can participate in the success of the business and where all employees are valued for the distinctive skills and experiences they bring to the Company
Management experience	What we refer below is published in Atlantica Integrated Annual Report. Page 131 and 132.

Atlantica's management has implemented different measures to identify, assess and mitigate potential human rights-related risks. These include:

- An Internal Compliance team that reviews human rights-related matters as part of their annual due diligence activities. The compliance team is responsible for monitoring that human rights are internally respected, providing human rights related training to our employees, and assessing the supply chain across the jurisdictions in which we operate to identify any potential breach. Additional information on compliance training is disclosed in the Business Ethics section. Information on our supply chain is disclosed in the Anti Modern Slavery & Human Trafficking Statement and in the Supply Chain Management Section, both part of the Strategic Report.
- A Code of Conduct that sets forth on working with third parties who operate under principles that are similar to those set out in the Code of Conduct. Additional information on our Code of Conduct is disclosed in the Business Ethics section.
- A Supplier Code of Conduct to which our suppliers must adhere to and which includes human rights and labour standard principles. Additional information on our Supplier Code of Conduct is disclosed in the Supply Chain Management section.
- Internal and external due diligence processes for new suppliers. Additional information is disclosed in the Supply Chain Management section.
- Regular internal and external audits to review compliance with data protection rules and regulations. Additional information is disclosed in the Cybersecurity and Data Privacy section.
- A Corporate Operations team that audits health and safety procedures at the asset level, as well as operational and environmental performance to implement insights gained and best practices. Additional information is provided on the Health and Safety Asset Management sections.
- An Investment Committee that reviews, as part of its due diligence when acquiring new assets, that the asset and/or the potential investment partner have not had any human rights incidents or sanctions.

- A Head of Risk Management who reviews risk management processes, procedures and tools implemented by the Company, including human rights-related risks affecting our operating portfolio as well as assets under development or under construction. Atlantica's Risk Map is reviewed by the Risk Management Committee and presented to the Board on a quarterly basis. Additional information on our risk management function is disclosed in the Sustainability Governance section.
- Rights of local communities. Our Geographic VPs and local asset managers lead community relations, including monitoring community matters and their development. Additional information on local communities is disclosed in the Local Communities section.
- Tolerating no salary discrimination for any reason, including gender. Different employees, including men and women in a similar position, can have different salaries based on the results of their performance evaluations. Additional information on gender equality is disclosed in the People and Culture section.
- Reporting our "Communication-On-Progress" on our commitment to the Sustainable Development Goal (SDG) N°8 (Decent Work and Economic Progress) through this Integrated Annual Report and directly through the United Nations webpage. Additional information on our commitment to SDGs is disclosed in the United Nations Global Compact (UNGC) section.
- Proposing changes to the Compliance and ESG-related policies to the Board, as well as maintaining our internal processes and procedures aligned with best practices.
- Providing communication channels to report any misconduct or instances of non-compliance with human rights. These include the whistleblower channel and the compliance channel. We have implemented several initiatives to encourage their use. Additional information on our communication channels is disclosed in the Business Ethics section

Gender equity in labor and work	What we refer below is published in Atlantica Integrated Annual Report. Page 131, 132 and for further information it can be find in People and Culture section (pg 139) Tolerating no salary discrimination for any reason, including gender. Different employees, including men and women in a similar position, can have different salaries based on the results of their performance evaluations. Additional information on gender equality is disclosed in the People and Culture section
Human trafficking, forced labor, and child labor	What we refer below is published in Atlantica Integrated Annual Report in page 134. In May 2022 our Board of Directors amended and approved our “U.K. Anti-Modern Slavery and Human Trafficking Statement” under the Modern Slavery Act, 2015. The statement, available on www.atlantica.com, outlines the steps taken by the Company to address the risk of slavery and human trafficking occurring within our operations and supply chains Atlantica has zero tolerance for modern slavery, and we confirm that no incidents of modern slavery were reported or identified during 2022, 2021 or 2020

2.3.2 Human Rights

What we refer to below is published in Atlantica Integrated Annual Report. Page 131 and 132.

We are committed to conducting our business in a manner that respects the rights and dignity of our employees and those linked to our activities, including our supply chain. We respect internationally recognised human rights, as set out in the International Bill of Human Rights, the International Labour Organisation’s (ILO) Declaration Core Conventions and the OECD Due Diligence Guidance for Multinational Enterprises.

Labour practices at Atlantica, including our employees and directors, are governed by our Human Rights Policy. This Policy aims to ensure respect for human rights in all our day-to-day activities – regardless of local practices -, implementing the commitments defined by our policies and international reference standards, directives and conventions, and establishing the procedures to ensure compliance with them.

We also have a Code of Conduct, Supplier Code of Conduct, Corporate Governance Guidelines and an Anti-Bribery and Anti-Corruption Policy to identify and mitigate any type

of violations of human rights that are linked to our operations, products or services and by our business relationships. These documents include specific sections on integrity, dignity, health and safety and labour practices (including those of our suppliers), equal opportunities, non-discrimination, environmental protection (including environmental accidents that could affect our employees or subcontractors' employees and/or local communities), cybersecurity and data protection.

In addition, we have a Diversity and Inclusion Policy to formalise our zero tolerance to discrimination against anyone based on any personal characteristic, such as ethnic background, culture, religion, age, disability, gender, marital status, sexual orientation, union membership, political affiliation, health, disability, pregnancy, or any other characteristic protected by law. We provide equal opportunities to all employees, including supportive and understanding workplace environments where employees feel welcomed, respected and listened to, and where they can realise their full potential regardless of their race, colour, sex, age, religion, ethnicity, nationality, or disability. We seek to provide a climate of confidence where employees can raise issues. Any behaviour which is not acceptable must be reported through the Ethical Mailbox that Atlantica has established to report any kind of abuse.

Furthermore, we acknowledge the rights of workers to collectively bargain the terms and conditions of work as defined by international reference standards, directives and conventions. Collective bargaining refers to all negotiations which take place between the employer on the one hand, and one or more workers' organisations (trade unions), on the other, for determining working conditions and terms of employment or for regulating relations between employers and workers. Additional information on collective bargaining is disclosed in the People and Culture section

2.3.3 Indigenous Peoples and Cultural Heritage

The local communities are far from the project. There are no indigenous people in the region.

2.3.4 Property Rights

Disputes over rights to territories and resources	N/A.
Respect for property rights	There is a contract with the owner, and it is respected.

2.3.5 Benefit Sharing

Summary of the benefit sharing plan	N/A
Benefit sharing during the monitoring period	N/A

2.4 Ecosystem Health

	Risk identified	Mitigation or preventative measure taken during the monitoring period
Impacts on biodiversity and ecosystems	Risk identified	There is a triannual plan issued to DINACEA where all these points are considered.
Soil degradation and soil erosion	Risk identified	There is a triannual plan issued to DINACEA where all these points are considered.
Water consumption and stress	Risks identified	There is a triannual plan issued to DINACEA where all these points are considered.
Usage of fertilizers	Risks identified	There is a triannual plan issued to DINACEA where all these points are considered.

2.4.1 Rare, Threatened, and Endangered species

Species or habitat	We constantly monitor and report on the impact of spinning blades on local species of birds. The scientific monitoring studies are performed by independent biodiversity consultants contracted by our projects. Studies cover a census of birds to analyse bird mortality and monitor the protected birds in case of Peralta, the loica pampeana has been monitored.
...	...

2.4.2 Introduction of species

Species introduced	Classification	Justification for use	Adverse effects and mitigation
No introduced species (N/A)			

Existing invasive species	Mitigation measures to prevent spread or continued existence of invasive species
No invasive species	

2.4.3 Ecosystem conversion

N/A

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

Peralta I Wind Power Project started its commercial operations on 13-May-2014. The carbon crediting period and therefore the monitoring starts on 13-May-2014, when the plant finished starting tests and commenced electricity generation. At the time of starting the commercial operations, the project was fully operational.

During the monitoring period (01-09-2020 to 28-02-2023), the project has operated continuously and with no major issues.

Curtailments

97% of Uruguay's electricity comes from renewable sources. Because of this and given that there is no active cross-border market (only occasional interchanges), electricity generation in the country tends to exceed demand (especially during night time). Therefore, the need for power curtailments is very difficult to avoid. In addition, as it is more expensive to restart a thermal power plant once it has stopped than to limit the production of a wind farm. Power curtailments are mainly directed towards renewable energy plants.

Power curtailments in Uruguay are defined in the Decree 59-015 dated 17th February 2015² and they are implemented as follows (in the case of Peralta I).

Peralta I wind farm has a communication link via ethernet from the wind farm server to the SCADA that UTE uses to regulate power generation nationwide. In this regard, UTE is able to set remotely the power output (from 1 MWh to 50 MWh) they need from Peralta I at every single time. Once UTE has selected a determined value, the wind farm internal PLC chooses automatically the most suitable wind turbines and sets them on a live basis to operate at the best speed in order to achieve the desired power objective. This process is based on a specific algorithm that optimizes all the parameters (wind direction and velocity, temperature, humidity, pressure, etc) to reach the power goal in the most efficient manner. Total energy curtailments during the monitoring period represent 0.37% of all the electricity generated by the wind farm. In other words, without power curtailments the project would have achieved generation of 0.37% more electricity. Nevertheless, the occurred power curtailments have not been used to calculate GHG emissions, so they have no impact in the results.

3.2 Deviations

3.2.1 Methodology Deviations

No deviations have taken place in the project from the methodology.

3.2.2 Project Description Deviations

No deviations are applicable for the present Monitoring Report.

The following project description deviations have been detected in previous monitoring periods:

- Start date has been changed from the PDD to adapt to the real start date of the project on the 13-May-2014. This is the date when full commercial operation started in the farm.

These changes have no impact in the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology.

3.3 Grouped Projects

The proposed project activity is not a grouped project.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

² <https://www.impo.com.uy/bases/decretos/59-2015>

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	EF _{grid, CM,y}
Data unit	tCO ₂ /MWh
Description	Combined margin CO ₂ emission factor of the grid connected power generation in year y calculated using the “Tool to calculate the emission factor for an electricity system” version 02.2.1
Source of data	Administración del Mercado Eléctrico (ADME)
Value applied	0.519
Justification of choice of data or description of measurement methods and procedures applied	The Combined Margin emission factor is calculated ex ante, as described in section B.6.1. / B.6.2/ B.6.3 of the PDD
Purpose of data	Calculation of baseline emissions
Comments	

4.2 Data and Parameters Monitored

Data / Parameter	EG _{facility,y}
Data unit	MWh
Description	The following parameters shall be measured: (i) The quantity of electricity supplied by the project plant/unit to the grid; and (ii) The quantity of electricity delivered to the project plant/unit from the grid
Source of data	The electricity is measured through a bidirectional main meter and a bidirectional backup meter owned by UTE. They are located at the connection position UTE within walking distance to the substation project. The measurements have been cross checked with records of sold electricity. Additionally, there is a record of the energy generated by a SCADA.
Description of measurement methods	The quantity of electricity supplied by the project plant/unit to the grid and from the grid is directly measured during the

and procedures to be applied	crediting period by SCADA system and records of sold of UTE. This data is archived electronically as per internal procedures, for 2 years after the end of the last crediting period or the last issuance of credits, whichever occurs later.
Frequency of monitoring/recording	Continuous measurement and at least monthly recording.
Value monitored	$EG_{\text{facility},2020}$: 54,906 MWh $EG_{\text{facility},2021}$: 144,622 MWh $EG_{\text{facility},2022}$: 133,904 MWh $EG_{\text{facility},2023}$: 21,495 MWh
Monitoring equipment	Bidirectional main meter and a bidirectional backup meter owned by UTE. The meters are both SL7000 type (manufacturer: ACTARIS), with serial numbers 46033991 (accuracy of 0.2S) and 65005113 (accuracy of 0.5S) respectively. Its calibration history has been 07/02/2014, 02/03/2016, 07/03/2018, 24/09/2020 and 26/05/2022. In 27/10/2022, after 10 years of use, they were changed by two other meters, ITRON, models SL7000, serial number 23409 and ACE6000, serial number 24549, calibrated on laboratory 26/08/2022.
QA/QC procedures to be applied	Data measured by UTE-meters have been cross-checked with the records from the electronic supervisory system of the wind farm and records for sold of electricity.
Purpose of the data	Calculation of baseline emissions
Calculation method	Continuous reading (Monthly reported)
Comments	Net generation = Energy exported - Energy imported. As to $EG_{\text{facility},2020}$, despite the existence of an ADME document that exempts the application of this factor³, in order to be more conservative, a correction has been applied to the month of September 2020 (month included in the present monitoring period 01/09/2020-28/02/2023, specifically in the subperiod 01/09/2020-31/12/2020) due to calibration date postponement. Besides, despite the fact that the calibration occurred on 24/09/2020, and as occurred in the MR of previous periods, the correction applies to the full month. To make the correction conservatively, instead of the maximum error factor of UTE measurers (2%), 3.33% has been applied; the calibration certificates establish a reference energy of 30 MWh, with an uncertainty of 1 MWh, implying an

³ Document: COMUNICADO Nro 191548 Expediente: Recalibracion SMEC – 18/03/2020

accuracy of 3.33% ($1/30 \times 100$). This amount is greater and therefore conservative than the 2% nominal uncertainty indicated in the certificate and applies to September 2020.

Thus, +3.33% have been applied to consumption and -3.33% to generation. The formulas used in the monitoring spreadsheet are as follows:

$$EG_{\text{facility, September 2020}} = A - B$$

Where A and B represent the total generation (Net Electricity Supplied) and consumption (Wind Farm Energy Consumption) for the month of September, respectively in MWh; therefore, the adjusted generation and consumption are:

a. Adjusted Generation for A = $C \times (100\% - 3.33\%)$

b. Adjusted Consumption for B = $D \times (100\% + 3.33\%)$

Where C is the Sale Receipts (MWh) (Energy generated) for the month of September, and D represents the Energy consumption (MWh) for the month of September.

The same is in line with the last verification, the applied regulatory documents and beyond the principle of conservativeness and hence accepted by the VVB.

4.3 Monitoring Plan

Monitoring tasks have been implemented according to the monitoring plan in order to ensure that the real, measurable and long-term greenhouse gas (GHG) emission reduction for the proposed project is monitored and reported.

The applied methodology is ACM0002 for monitoring the emission reductions due to the project activity, according to the applicability criteria.

- A monitoring plan has been implemented to guarantee the accurate and transparent determination of avoided emissions. In accordance with the methodology, monitoring consists of metering the electricity generated by the renewable technology.
- All data collected as part of monitoring are archived electronically and is kept at least for 2 years after the end of the last crediting period or the last issuance of credits, whichever occurs later.
- All measurements are conducted with calibrated measurement equipment according to relevant industry standards Commercial Measurements System by URSEA (URSEA Decision No. 14002 of 27-November-2002).
- The farm features a "Supervisory Control and Data Acquisition" (SCADA). This computer-based system monitors and controls the farm remotely, providing communication with field devices (standalone controllers) and controlling the process of automatically by specialized software.

- This system controls all the aspects of the wind farm:
 - Monitor and Control wind farm devices, including wind turbines;
 - Advanced reporting options such as Report;
 - Generator and Information Manager for downtime categorization;
 - Remote alarm and event management via an intelligent event manager;
 - A sharp, clear view of trends through the Gamesa;
 - Trend Viewer;
 - Power manager solution for grid code requirements: active, reactive and apparent power management,
 - Wind farm device integration, including meteorological mast, substation.
 - Status and alarm messages via SMS and e-mail;
 - Remote Web client with a friendly, intuitive user interface; and,
 - Includes Gamesa SMP, the CMS solution by Gamesa.

Monitoring Management Structured

In order to ensure that the project is well organized in terms of reliable data collection and gathering during the full crediting period, the organization of the monitoring team is established with clear roles and responsibilities assigned to all staff involved in the CDM project.

The project owner has trained the relevant personnel before the project operation. The training is commensurate with the work being done. The evidence of this received training has been submitted to the VVB.

The Country Manager holds the overall responsibility for the monitoring process, but as indicated below parts of the process are delegated. The first step is the measurement of the electrical energy supplied from the grid and reporting of daily operations, which are carried out by the plant operation staff.

There is a monitoring officer who is responsible for verification of the measurement, collection of sales receipts, collection of billing receipts of the power supplied by the grid to the wind farm and the calculation of the emissions reductions. The monitoring officer prepares operational reports of the project activity, reviews the daily operation of the wind farm station including operating periods, power delivered to the grid, equipment defects, etc. Finally, the monitoring reports are reviewed by the Country Manager.

In summary, the monitoring plan of the project is executed by the project owner, under the supervision of the CDM project consultant in accordance with the requirements of the applicable

methodology and the EB on monitoring and verification to ensure that the emission reductions are monitored, recorded and reported accurately.

Monitoring equipment and installation

Given that the emission factor is calculated ex-ante, and referring to the Monitoring Methodology ACM0002, the only data monitored is the quantity of net electricity supplied to the grid by the wind project in every year.

The electricity generated is measured both by the project sponsor through the "Supervisory Control and Data Acquisition". Two electricity meters are installed by UTE: the main meter and a backup meter, as shown in the connection diagram below. Both are bidirectional.

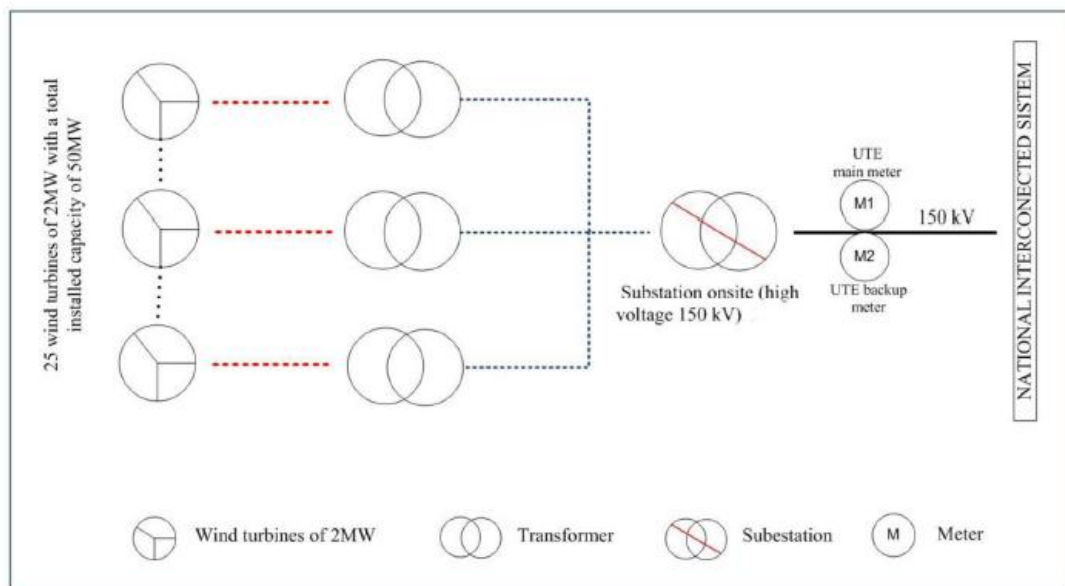


Figure 3. Grid connection diagram

The grid connection diagram indicates the principles for positioning of metering instruments that are used in the monitoring of emission reductions.

Calibration

The equipment used to monitor the electricity production is provided by certified entities by UTE and calibration is conducted according to the national requirements. The laboratory certificate of these calibrations of UTE has been submitted with certificate numbers 223171 and 223176 both dated on 30/08/2022 (calibrated on 26/08/2022), which therefore cover the period from 26/08/2022 until the end of the monitoring period, 28/02/2023. As for the period from 01/09/2020 to 26/08/2022, the certificates 202785 and 202786 cover the period from 24/09/2020 to 26/08/2022 (2 years). Finally, the 24-day period, from 01/09/2020 to 24/09/2020, is the only period not covered by calibration certificates. Despite the fact that the calibration occurred on 24/09/2020, and as occurred in the MR

of previous periods, the correction applies to the full month (despite the existence of an ADME document that exempts the application of this factor). To make the correction conservatively +3.33% has been applied to consumption and -3.33% to generation. As explained in the table *EGfacility* parameter in section 4.2, the formulas used in the monitoring spreadsheet are as follows:

$$EG_{facility, September 2020} = A - B$$

Where A and B represent the total generation (Net Electricity Supplied) and consumption (Wind Farm Energy Consumption) for the month of September, respectively in MWh; therefore, the adjusted generation and consumption are:

$$a. \text{ Adjusted Generation for A} = C \times (100\% - 3.33\%)$$

$$b. \text{ Adjusted Consumption for B} = D \times (100\% + 3.33\%)$$

Where C is the Sale Receipts (MWh) (Energy generated) for the month of September, and D represents the Energy consumption (MWh) for the month of September.

The same is in line with the last verification, the applied regulatory documents and beyond the principle of conservativeness and hence accepted by the VVB.

The regulatory body (URSEA) established regulations for the Measurement System Commercial, SMEC⁴. This is applied to systems measurement for all commercial transactions between market players in the injection or withdrawal nodes of energy of UTE. It also establishes the requirements that have the facilities to measure energy, enabling conditions and penalties.

The SMEC is managed by the Electricity Market Management (ADME). Calibration is performed according to the standard IEC 62053-22⁵ for static active meters.

Data recording and archiving

Electricity supplied by the project to the grid is monitored using a calibrated electricity meter. A main and a backup meter is installed for metering the electricity supplied to the grid. Monthly records have been taken.

On the other hand, UTE has installed electronic meters that measure the data in a continuous way. Data is recorded at UTE's Distribution Management Centre. Project owner has access to the Distribution Management Centre through a key provided by ADME.

Measurements can be cross checked with sale receipts for electricity and/or with the information published in the official web site of the operation coordinator of the National Interconnected System.

The project participants archive all data collected as part of monitoring during the monitoring period plus two years.

⁴ Is managed by the Electricity Market Management (ADME)

⁵ Norma IEC 62053-22 (2003): Static meters for active energy

Quality assurance and Quality control

The quality of data generated by this project is maintained through the development of an overarching monitoring system including procedures used to double check data, for staff training, meter calibration, accreditation of the facility completing calibration and the adherence to the relevant standards. All metering equipment to be used for the monitoring is appropriately maintained, calibrated, and checked at regular intervals in line with therequirements of IEC 62053-22:2003 (Electricity metering equipment (a.c.) – Particular requirements – Part 11: Electromechanical meters for active energy (classes 0,5, 1 and 2)). The sponsor is responsible for calibrating the SMEC meters every 2 years as defined by national decree of law.

Procedures on how to deal with erroneous measurements

Windnet control system (SCADA) is interconnected to all those involved in real time (UTE, Gamesa control service and the project owner's control) and enables the identification of potential emergencies real time and can act accordingly.

Data measured by UTE-meters can be cross-checked with the records from the electronic supervisory system of the wind farm and records of sold electricity. Apart from this, consistency is guaranteed by cross checking the main and the backup meter readings with the invoice records for sold electricity. In case of inconsistency, the main meter readings, which are managed by the grid company (UTE), are to be used for emission reductions calculation. Conservative values between both readings are considered for emission reduction calculation.

If any error is detected, the party owning the meter, shall repair recalibrate or replace the meter giving the other party sufficient notice to allow a representative to attend during any corrective activity.

Management structure in order to monitor emission reductions

The monitoring of the emission reductions is carried out according to the scheme shown in Figure below:

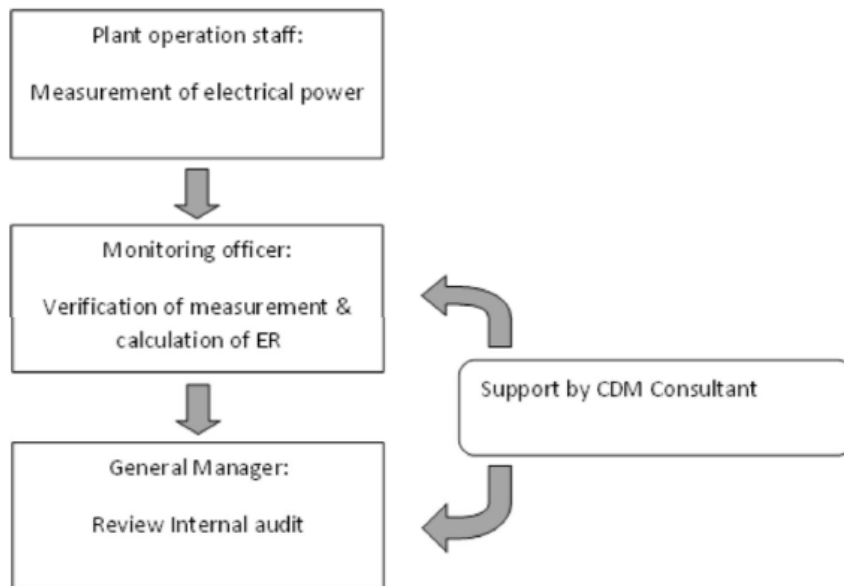


Figure 4. Management structure for monitoring

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

Baseline emissions include only CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The baseline emission is calculated as the product of electrical energy baseline $EG_{PJ,y}$ expressed in MWh, produced by the renewable generating unit and multiplied by the grid emission factor:

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$$

Where:

BE_y : Baseline Emission in year y (tCO₂).

$EG_{PJ,y}$: Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh).

$EF_{grid,CM,y}$: Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the Tool to calculate the emission factor for an electricity system (tCO₂/MWh).

Calculation of $EG_{PJ,y}$

The calculation of $EG_{PJ,y}$ is different for (a) Greenfield plants, (b) retrofits and replacements, and (c) capacity additions. Due to the fact that the project involves the installation of a new grid-connected renewable power plant/unit at a site where no renewable power plant was operated prior to the implementation of the project activity (Case (a) Greenfield plant), then:

$$EG_{PJ,y} = EG_{facility,y}$$

Where:

$EG_{PJ,y}$: Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh).

$EG_{facility,y}$: Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh).

The net electricity generation as a result of the project activity to the grid is calculated based on monthly records⁶ from meter M1 measurements and is the output from the difference between the exported energy (or the gross energy generation) and the imported energy (or the energy consumed by the project). The results are presented in the following table (the hourly generation from the SMEC meter has been submitted for crosscheck to the VVB):

Period	Net electricity supplied (MWh)
01/09/2020 to 31/12/2020	54,906
01/01/2021 to 31/12/2021	144,622
01/01/2022 to 31/12/2022	133,904
01/01/2023 to 28/02/2023	21,495
Total	354,927

Calculation of $EF_{grid,CM,y}$

Calculation of $EF_{grid,CM,y}$ was made ex-ante for the project at validation time. Value obtained was 0.519 with data obtained from Despacho Nacional de Cargas (UTE) /UTE's Annual Report, 2008, 2009 & 2010 and ADME.

5.2 Project Emissions

For most renewable energy project activities, the project emissions are neglected. Following the methodology, as the project is a new wind power plant without fossil fuel consumption, it does not lead to any GHG emissions and therefore project emissions are considered equal to zero.

$$PE_y = 0 \text{ tCO}_2.$$

⁶ Monthly records can be checked in "ER Calculations - Peralta v4.3"

5.3 Leakage Emissions

Following the applied methodology, no leakage emissions are considered. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, and transportation). These emissions sources are neglected.

5.4 GHG Emission Reductions and Carbon Dioxide Removals

The net GHG emission reduction is calculated following the guidance of the methodology ACM0002, as follows:

$$ER_y = BE_y - PE_y$$

Where:

ER_y : Emission reduction in year y (tCO₂)

BE_y : Baseline Emission in year y (tCO₂)

PE_y : Project emission in year y (tCO₂)

$$ER_y = BE_y - 0$$

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCUs (tCO ₂ e)	Removal VCUs (tCO ₂ e)	Total VCUs (tCO ₂ e)
Year 2020 (01-September-2020 -- 31-December-2020)	28,496	0	0	28,496	0	28,496
Year 2021 (01-January-2021 -- 31-December-2021)	75,059	0	0	75,059	0	75,059
Year 2022 (01-January-2022 -- 31-December-2022)	69,496	0	0	69,496	0	69,496
Year 2023 (01-January-2023 -- 28-February-2023)	11,156	0	0	11,156	0	11,156
Total	184,207	0	0	184,207	0	184,207

The following table shows the estimated ex-ante GHG emission reductions and the achieved emission reductions for this monitoring period, and the percentage difference, as well as the justification of the difference:

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-09-2020 to 28-02-2023	228,345	184,207	19.33%	Deviations in the actual generated electricity generation with respect to the estimated EX ANTE
Total	228,345	184,207	19.33%	Deviations in the actual generated electricity generation with respect to the estimated EX ANTE The difference is explained by the lack of wind in the period.

Finally, clarify that the 228,345 tCO₂e EX ANTE are calculated by multiplying the emissions reduction calculated EX ANTE in the current PD (91,705 tCO₂e/year), by the 2.49 year extension of the current monitored period (01-September-2020 – 28-February-2023).