



Monitoring report form for CDM project activity
(Version 06.0)

Complete this form in accordance with the instructions attached at the end of this form.

MONITORING REPORT

Title of the project activity	Guanacaste Wind Farm	
UNFCCC reference number of the project activity	4147	
Version number of the PDD applicable to this monitoring report	10	
Version number of this monitoring report	1	
Completion date of this monitoring report	20/02/2018	
Monitoring period number	7 th Monitoring Period	
Duration of this monitoring period	01/01/2017 – 31/12/2017 (inclusive)	
Monitoring report number for this monitoring report	Not applicable	
Project participants	<ul style="list-style-type: none"> • Planta Eólica Guanacaste S.A. (Private Entity) • Electrabel NV/SA (Private Entity) 	
Host Party	Costa Rica (Host) Netherlands (Annex 1)	
Sectoral scopes	Sectoral Scope: 1 Energy Industries – Renewable / non renewable sources	
Applied methodologies and standardized baselines	ACM0002 – “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” version 11.	
Amount of GHG emission reductions or net anthropogenic GHG removals achieved by the project activity in this monitoring period	Amount achieved before 1 January 2013	Amount achieved from 1 January 2013
	0 tCO ₂ e	62,629 tCO ₂ e
Amount of GHG emission reductions or net anthropogenic GHG removals estimated ex ante for this monitoring period in the PDD	95,225 tCO ₂ e	

SECTION A. Description of project activity

A.1. General description of project activity

The Guanacaste Wind Farm Project (hereafter referred to as “PEG”) was developed by Planta Eólica Guanacaste S.A. (hereafter referred to as “Project Participant”), a company owned by Enerwinds de Costa Rica S.A., Enerwinds is shareholder of a 100% of PEG. Enerwinds was acquired by Celsia, Celsia has financier control and is shareholder of 100% of Enerwinds since December 05, 2014. Celsia is part a group active of energy production with presence in Costa Rica, Panamá and Colombia.

This project is located at Provincia de Guanacaste in the northwest of Costa Rica (hereafter referred to as the “Host Country”). The main purpose of the proposed project is to use wind power to generate renewable electricity, which is delivered to the national grid of Costa Rica (hereafter referred to as the “Grid”). The renewable electricity produced by PEG avoids CO₂ emissions from electricity generation by fossil fuel power plants. This substitution effect is especially strong as the project activity has the great advantage of generating electricity during the dry season when the generation capacities of hydro power plants are reduced and thermal plants are demanded most. The electricity generates is sold to the National Power Utility in Costa Rica, called “Instituto Costarricense de Electricidad” (hereafter referred to as ICE).

This project consists of 55 Wind Energy Converters (WECs) with 900 kW of installed capacity each, totalling 49.5 MW. These generators are located at the top of the towers at 45m above the ground. The rotor diameter is 44m with 3 blades of 22 meters each.

The following table summarizes the Project’s main milestones:

Table 1: Project Milestones

Date	Milestone
17/07/2007	CDM starting date
12/02/2008	Construction starting date
30/08/2008	Installation of WECs 1 – 28 (First phase)
15/07/2009	Installation of WECs 29 – 55 (Second phase)
25/09/2009	Commercial operation date of the first phase
17/11/2009	Commercial operation date of the second phase ¹

The total emissions reductions (ERs) achieve during this monitoring period are summarized in the following table:

Table 2: Summary of Emission Reductions during the monitoring period

Monitoring period	Net electricity production	Total emission reductions
01/01/2017 – 31/12/2017	161,380.92 MWh	62,629 tCO _{2e}

A.2. Location of project activity

Country (host party): Costa Rica
 Region/state/Province: Guanacaste
 Canton and District: Bagaces, Mogote

¹ For WECs 30, 50, 51 and 54, the Commercial Operation Date (COD) started on 24/12/2009.

The Guanacaste province is located in the northwest of Costa Rica and is a border province to the south of Nicaragua. Geographical coordinates are: 10°46'58" N; 85°16'34" W.

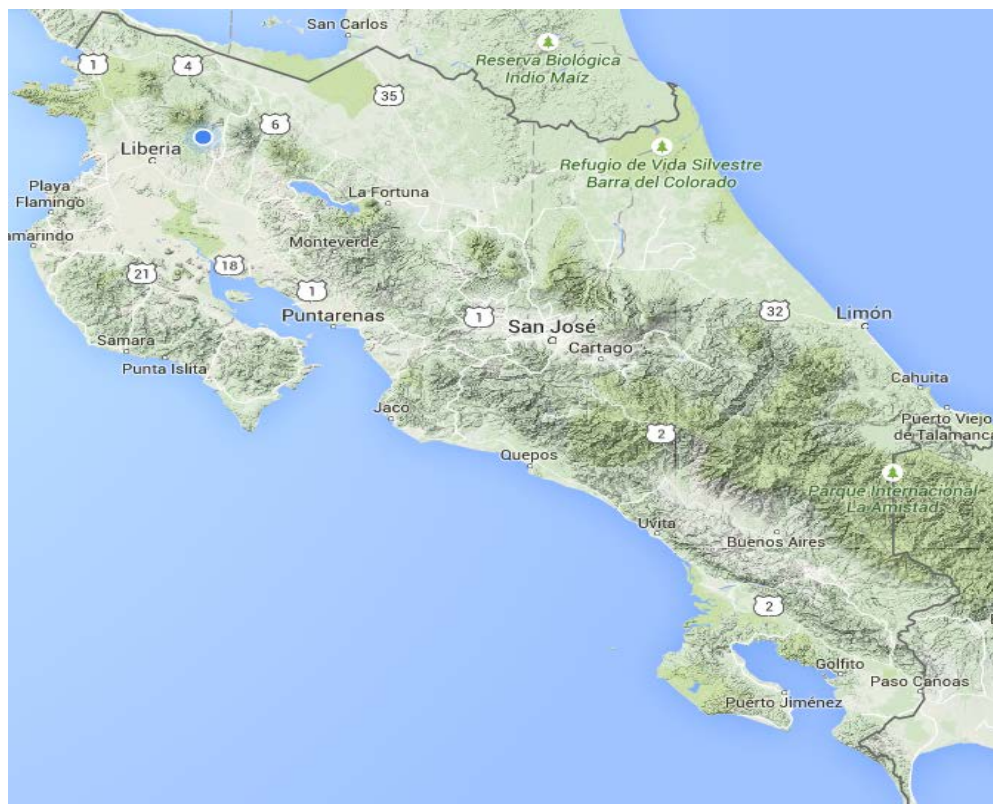


Figure 1: Location of Costa Rica and Guanacaste

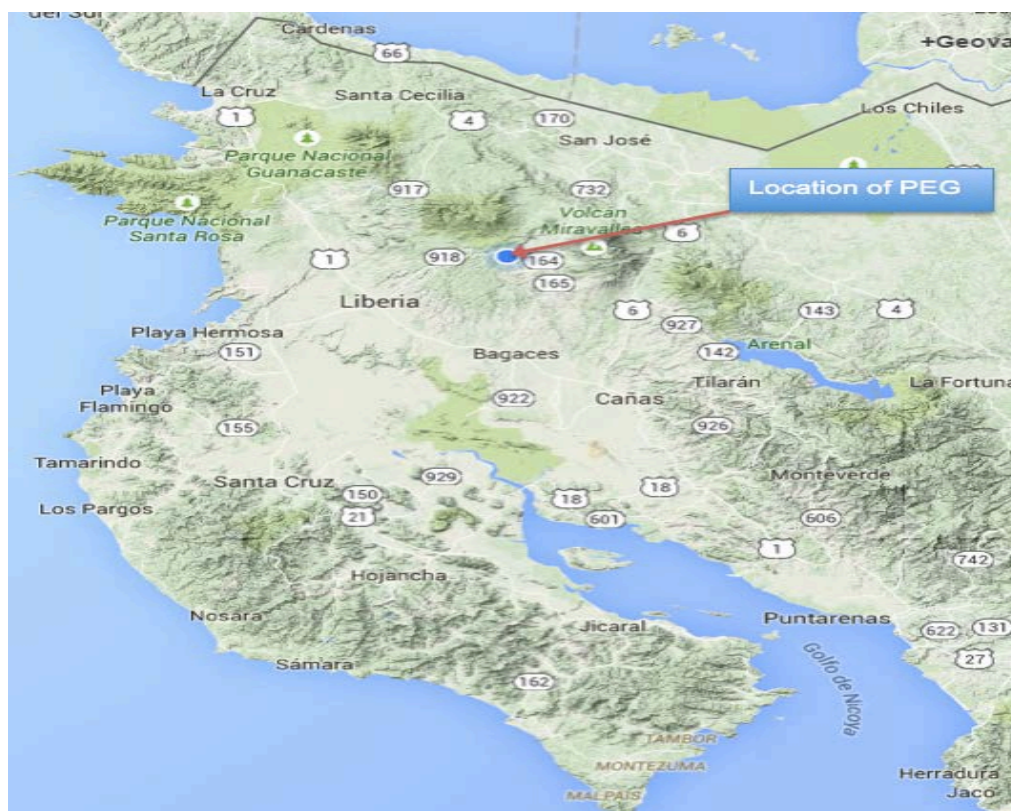


Figure 2: Location of PEG

A.3. Parties and project participants

Parties involved	Project participants	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
Costa Rica (Host)	Planta Eólica Guanacaste S.A. (Private Entity)	No
Netherlands	Electrabel NV/SA (Private Entity)	No

A.4. Reference to applied methodologies and standardized baselines

- Methodology used for baseline calculations and monitoring: ACM0002 – “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” version 11.
- “Tool to calculate the emission factor for an electricity system” version 02.
- “Tool for the demonstration and assessment of additionality” version 05.2.

Reference to the UNFCCC CDM website:

<http://cdm.unfccc.int/methodologies/DB/8W400U6E7LFHHYH2C4JR1RJWWO4PVN>

A.5. Crediting period type and duration

Type of crediting period: 10 years fixed crediting period

The crediting period of the project activity is from 11/02/2011 to 10/02/2021

Current monitoring period: 01/01/2017 to 31/12/2017

SECTION B. Implementation of project activity**B.1. Description of implemented project activity**

PEG began the construction works on 12/02/2008, with the installation of the first phase and second phase on the 30/08/2008 and 15/07/2009 respectively. The commercial operation of the first phase began on the 25/09/2009 and the commissioning of the second phase on 17/11/2009. The Project Activity was registered as a CDM Project on 11/02/2011 under reference number 4147.

The project uses state of the art wind power technology and has a total of 49.5 MW installed capacity comprehending the installation of 55 ENERCON E-44 900 kW Wind Energy Converters (WECs). The following table presents an overview of the technical characteristics of the power plant. Assuming a net capacity factor of 56.6%, the total estimated annual generation is 245.3 GWh/year.

Table 3: Technical Detail of the Project Activity

WEC Manufacturer	Enercon (1)
Type	E-44 (1)
WEC Capacity	900 kW each (1)
Number of WECs	55 (1)
Total installed capacity	49.5 MW

Plant load factor	56.6% ²
Lifetime	18 years (2)
(1) WEC purchase agreement ³ (2) Design Assessment ⁴	

The following table shows the details of the WECs:

Table 4: WECs manufacture's specifications

Rated Power	900 kW
Rotor Diameter	44 m
Hub Height	45 m or 55 m
Rotor	
Type	Upwind rotor with active pitch control
Rotational Direction	Clockwise
Number of blades	3
Swept Area	1521 m ²
Blade Material	GRP (epoxi resin). Built in lightning protection
Rotatoinal Speed	Variable, 12-34 rpm
Pitch Control	ENERCON single blade pitch system
Drive Train with Generator	
HUB	Rigid
Main Bearing	Tapered roller bearing pair
Generator	ENERCON direct drive annular
Grid Feed	ENERCON Inverter
Brake Systems	3 independent pitch control systems with emergency power supply. Rotor brake, Rotor lock
Yaw System	Active via yaw gear, load dependent damping
Cut-out wind speed	28-34 m/s
Remote Monitoring	ENERCON SCADA

During this monitoring period (01/01/2017 - 31/12/2017), the net electricity supply by the Project to the utility was 161,380.92 MWh. The monitoring in PEG is carried out as established in the Monitoring Plan by continuous metering of the received and delivered energy.

Regarding events that may impact the GHG emission reductions during the monitoring period, the following are mentioned:

² This plant load factor is from the design phase and the one used to calculate the estimated annual generation.

³ Contract Agreement between PEG and Enercon for the purchase of WECs, contract no. W-03371-V01.

⁴ DEWI-OCC Offshore and Certification Centre GmbH: State of Compliance for the Design Assessment, STC – 070901, Rev. 1.

Table 5: Event Log

Date of begin	Date of end	Days down operation	Event
01/01/17	01/01/17	0.3125	Power Restriction 39.1 MW
01/01/17	06/04/17	95.98614583	Ground contact failure WEC 02
01/01/17	15/03/17	73.69408565	Ground contact failure WEC 54
11/01/17	17/02/17	37.19375	Ground contact failure WEC 01
11/01/17	25/02/17	45.10922454	Ground contact failure WEC 11
15/01/17	27/01/17	12.0152662	Ground contact failure WEC 36
16/01/17	21/02/17	35.86005787	Ground contact failure WEC 04
17/01/17	02/03/17	44.10299769	Ground contact failure WEC 09
17/01/17	19/02/17	33.2087963	Ground contact failure WEC 06
25/01/17	08/04/17	72.20458333	Ground contact failure WEC 08
29/01/17	29/01/17	0.364583333	Power restriction 43 MW
30/01/17	15/02/17	16.8218287	Ground contact failure WEC 13
28/03/17	28/03/17	0.060277778	Biannual calibration of Main meter ION 230 kV
28/03/17	28/03/17	0.052939815	Biannual calibration of Backup meter ION 230 kV
10/04/17	13/04/17	2.650694444	Coil repair WEC 54
12/04/17	24/04/17	12.54157407	Ground contact failure WEC 02
14/04/17	18/04/17	3.358761574	Ground contact failure WEC 54
21/04/17	24/04/17	3.3875	Failure in safety washer WEC 36
25/04/17	28/04/17	3.584108796	Coil repair WEC 01
11/05/17	13/05/17	1.969641204	Ground contact failure WEC 26
12/05/17	17/05/17	5.468796296	Ground contact failure WEC 35
23/05/17	25/05/17	2.320891204	Coil repair WEC 37
29/05/17	01/06/17	2.96755787	Coil repair WEC 36
05/06/17	07/06/17	2.385601852	Coil repair WEC 13
09/06/17	09/06/17	0.165358796	Coil repair WEC 54
01/07/17	01/07/17	0.179872685	National Network Failure
18/07/17	19/07/17	1.529363426	Annual Plant Maintenance
19/07/17	04/08/17	16.58331019	Major maintenance WEC 42
28/07/17	08/08/17	10.95731481	Major maintenance WEC 46
01/08/17	10/08/17	9.073055556	Major maintenance WEC 37
04/08/17	11/08/17	7.341041667	Major maintenance WEC 47
04/08/17	21/08/17	16.85903935	Ground contact failure WEC 02
07/08/17	25/08/17	18.36634259	Major maintenance WEC 34
10/08/17	21/08/17	10.80737269	Ground contact failure WEC 08
21/08/17	31/08/17	10.63840278	Major maintenance WEC 08
21/08/17	26/08/17	5.272222222	Major maintenance WEC 30
08/08/17	22/08/17	14.13840278	Major maintenance WEC 02
24/08/17	02/09/17	8.982638889	Major maintenance WEC 27
25/08/17	04/09/17	10.26319444	Major maintenance WEC 01
27/08/17	27/08/17	0.043055556	Power Restriction 26 MW
31/08/17	08/09/17	8.288888889	Major maintenance WEC 35
04/09/17	11/09/17	7.49	Major maintenance WEC 04
06/09/17	14/09/17	8.296527778	Major maintenance WEC 36
11/09/17	19/09/17	8.215972222	Major maintenance WEC 05

13/09/17	22/09/17	9.307638889	Major maintenance WEC 43
18/09/17	27/09/17	9.261805556	Major maintenance WEC 06
19/09/17	30/09/17	11.18055556	Major maintenance WEC 11
21/09/17	21/09/17	0.054861111	Biannual calibration of Main meter ION 230 kV
21/09/17	21/09/17	0.047222222	Biannual calibration of Backup meter ION 230 kV
21/09/17	26/09/17	4.526354167	Ground contact failure WEC 33
26/09/17	03/10/17	7.385416667	Major maintenance WEC 12
04/10/17	16/10/17	12.15069444	Major maintenance WEC 24
02/10/17	11/10/17	9.344444444	Major maintenance WEC 09
25/09/17	11/10/17	16.31180556	Major maintenance WEC 54
10/10/17	19/10/17	9.317361111	Major maintenance WEC 10
10/10/17	20/10/17	10.45208333	Major maintenance WEC 55
16/10/17	24/10/17	8.45	Major maintenance WEC 45
18/10/17	27/10/17	9.417361111	Major maintenance WEC 53
20/10/17	26/10/17	6.120833333	Major maintenance WEC 44
25/10/17	31/10/17	6.509722222	Major maintenance WEC 51
16/10/17	21/10/17	5.123611111	Major maintenance WEC 50
03/11/17	08/11/17	5.091631944	Ground contact failure WEC 07
06/11/17	16/11/17	10.30138889	Major maintenance WEC 48
20/11/17	23/11/17	3.15625	Coil repair WEC 07
10/12/17	10/12/17	0.027777778	Power Restriction 35 MW
11/12/17	15/12/17	4.015185185	Ground contact failure WEC 32
12/12/17	12/12/17	0.1125	Power Restriction 35 MW

B.2. Post-registration changes

B.2.1. Temporary deviations from the registered monitoring plan, applied methodologies or standardized baselines

Not applicable

B.2.2. Corrections

Not applicable

B.2.3. Changes to the start date of the crediting period

Not applicable

B.2.4. Inclusion of monitoring plan

Not applicable

B.2.5. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools

Not applicable

B.2.6. Changes to project design

Not applicable

SECTION C. Description of monitoring system

The 55 WECs are connected to medium voltage (MV) switchgear (34.5 kV). The MV switchgear has 8 cells of which 5 cells of incoming power from the groups of WECs, 1 cell for own consumption of PEG, 1 cell for internal consumption of the substation El Mogote (property of ICE), located at the project site in front of PEG's building, and 1 cell for injection to the grid of ICE. Injection to the grid goes through a booster transformer (34.5 kV to 230 kV), which is located at El Mogote substation.

1. Data generation

The data is generated by main and backup energy meters located at the El Mogote substation which are property of ICE. These meters measure the exported and imported electricity to/from the national grid. The following table presents the main characteristics of the meters.

Table 6: Characteristics of Electricity Meters

Period	Main Meter	Back-up meter
01/01/2017 - 31/12/2017	Model ION7550 S/N: PI-0809A193-01	Model ION7550 S/N: PI-0809A194-01

The data measured by the backup meter is recorded, handled, reported and archived in the same way as the data measured by the main meter. This can secure the measurement in case of failure of the main meter.

On the table below the dates of different processes of calibration is shown:

Table 7: Meter Information regarding this monitoring period

METER	LOCATION	1. VERIFICATION PERFORMED BY A CERTIFIED THIRD PARTY	CALIBRATION VALIDITY	2. VERIFICATION PERFORMED BY A CERTIFIED THIRD PARTY	CALIBRATION VALIDITY	3. VERIFICATION PERFORMED BY A CERTIFIED THIRD PARTY	CALIBRATION VALIDITY
MAIN	Substation Mogote Cabinet "TCOM-1"	6/9/2016	5/3/2017	28/3/2017	27/9/2017	21/9/2017	20/3/2018
BACK- UP	Substation Mogote Cabinet "TCOM-1"	6/9/2016	5/3/2017	28/3/2017	27/9/2017	21/9/2017	20/3/2018

As shown in the table above, both meters had a delayed calibration, as the calibration was valid up to 05/03/2017 and the verification of the calibration wasn't performed until 28/03/2017. Hence an adjustment in the electricity generation readings has been applied to the month of March 2017 (even though the calibration was delayed only for 23 days, the adjustment was applied to the entire month for simplicity). The verification report from ICE Certificate of 31/03/2017, shows a maximum error for the main electricity meters of -0.106% and for the backup meter of 0.101 however in accordance with the Clean Development Mechanism Validation and Verification Standard (Version 09.0, paragraph 395) the maximum permissible error of the meters of $\pm 0.2\%$ was applied for the period, as it's the highest value.

The complete overview of the data generation process is presented in the following Project Activity Diagram (PAD).

PEG Planta Eólica Guanacaste S.A.

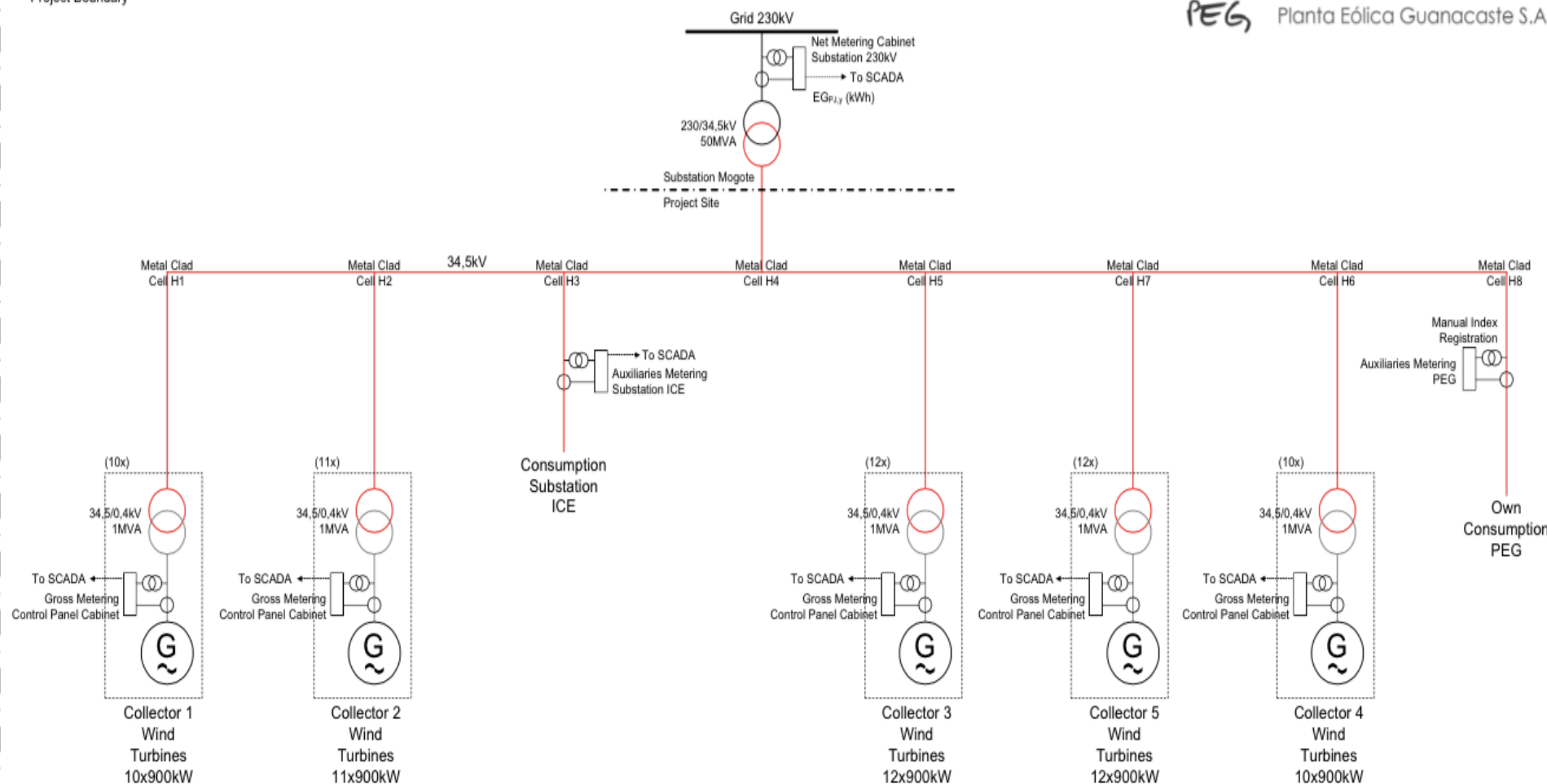


Figure 3: Overview of energy metering - Data generation

2. Data recording, handling and reporting

Data Recording is done by using ION Enterprise software, which is installed on the SCADA Schneider Computer. Every day after midnight, the operational personnel will use this software to extract the daily raw data from the concerned ION 7550 metering devices into a spreadsheet file stored on the server. This dataset is transferred to a daily report of delivered electricity to the grid. The daily report is part of a monthly file, which is stored on the server. In this file, the values (in kWh) are aggregated to a daily value and the daily values are added to a monthly value.

3. Data control

When the daily report is generated by the operation personnel, a data control is performed by comparing the daily values (injected energy to the grid – 230 kV) of the main and backup meters. If the analysis of the daily report shows any inconsistency of data, the operational personnel will prepare a communication in order to inform the Project Owner (PO) monitoring manager immediately. The PO monitoring manager will take immediate action in order to identify the malfunctioning metering device and to repair/replace/calibrate this device as soon as possible.

On the last day of the month, at midnight, a monthly data extraction is done from the metering devices by using the ION Enterprise software. This generates a spreadsheet file of monthly raw data and will be stored on the server. The operational personnel does an extra data control between the monthly delivered kWh from this data extraction and the monthly delivered kWh which results from the daily reports.

Monthly generation data (exported electricity and imported electricity) is copied to a “CDM Data” worksheet where CDM-relevant data is summarized ((i) Calculation of Net electricity supplied to the grid for main and backup meter; (ii) Calculation of Net electricity supplied to the grid according to the invoices (import) and sales receipts (export); (iii) Automatic data control between main and backup data; (iv) Automatic crosscheck with data from invoices and sales receipts – according to the requirement in the methodology). This data is reviewed by the PO monitoring manager on a monthly basis.

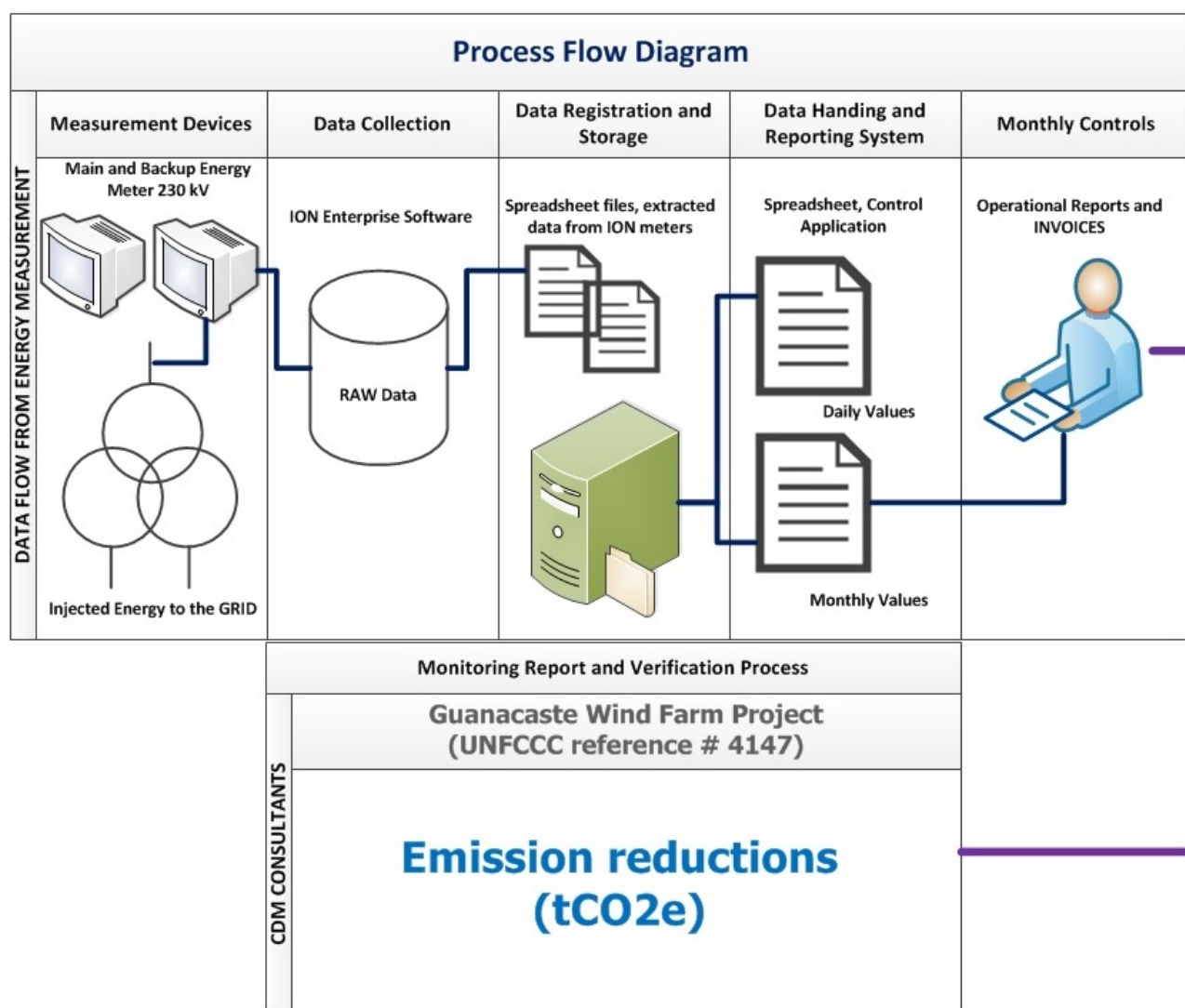


Figure 4. Information Flow

4. Data archiving

All electronic spreadsheet files of raw data (daily and monthly raw data) that are generated by the software are stored on the server. Daily reports, which are part of a monthly file and the “CDM Data” worksheet that summarizes CDM-relevant data are also stored on the server.

Each month, this monthly file and the “CDM Data” worksheet are sent by email to the CDM consultant for review and storage (backup) and also to the PEG office for review, storage and invoicing.

5. Organizational structure, roles and responsibilities

The structure that PEG has to operate and also to monitor this project activity is presented in the organization chart below (in highlight the personnel involved with CDM monitoring activities):

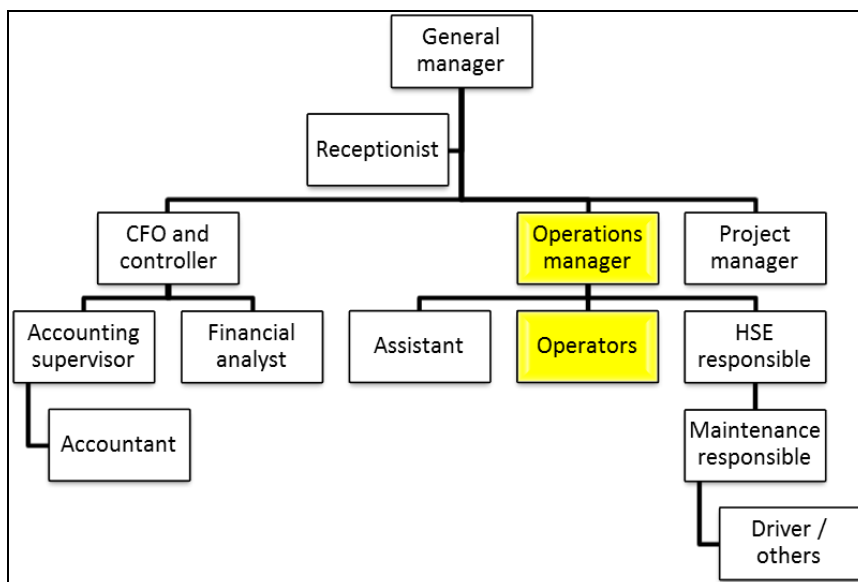


Figure 5: PEG Organizational Structure

To monitor this project activity, the project owner developed their own procedure, which describes how the monitoring activities should be performed. PEG personnel, involved with CDM monitoring were trained to follow this manual.

The operations manager (which is in fact the PO monitoring manager) has the responsibility for the CDM monitoring activities, which includes among others:

- Guarantee correct monitoring of data listed in the monitoring plan;
- Guarantee well-functioning and calibration of monitoring equipment;
- Be responsible for the data generation, data recording, handling and reporting, data control and data archiving;
- Prepare periodic internal reporting;

Some tasks that are under the operations manager responsibility are delegated to the operators. In addition, the project owner has contracted a CDM consultant to assist in the issuance process. The CDM consultant is responsible for:

- Drafting the monitoring report and perform the emission reductions calculation;
- Follow up verification and issuance process;

The data is archived at PEG server and also send on a monthly basis to the CDM consultant who uploads to a data room. Therefore there is one backup of this data

6. Emergency procedures for the Monitoring system

See data generation and data control, for references emergency procedures.

SECTION D. Data and parameters

D.1. Data and parameters fixed ex ante

Data/Parameter	$EF_{grid,CM,2005-2007}$
Unit	tCO ₂ /MWh
Description	Combined margin CO ₂ emission factor of the Costa Rican grid in year 2005, 2006 and 2007
Source of data	Registered PDD
Value(s) applied	0.3882
Choice of data or measurement methods and procedures	As per the "Tool to calculate the emission factor for an electricity system" version 02.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	The emission factor of the project was ex-ante determined and is fixed during the crediting period. All data and parameters have been determined at registration.

D.2. Data and parameters monitored

Data/parameter:	$EG_{PJ,y}$
Unit	MWh/year
Description	Quantity of net electricity generation supplied to the grid in year <i>y</i> by the project plant/unit that has been added under the project activity
Measured/calculated/default	Measured
Source of data	Electricity meter reading
Value(s) of monitored parameter	161,380.92 MWh

Monitoring equipment	<p><u>Main Meter</u> Manufacturer: Schneider Electric Type: ION7550 Accuracy class: 0.2⁵ Serial number: PI-0809A193-01 Calibration frequency: 6 months</p> <p>Date of calibration⁶: 06/09/2016 Valid thru: 05/03/2017</p> <p>Date of second calibration⁷: 28/03/2017 Valid thru: 27/09/2017</p> <p>Date of third calibration⁸: 21/09/2017 Valid thru: 20/03/2018</p> <p><u>Back up meter</u> Manufacturer: Schneider Electric Type: ION7550 Accuracy class: 0.2 Serial number: PI-0809A194-01 Calibration frequency: 6 months</p> <p>Date of second calibration: 06/09/2016 Valid thru: 05/03/2017</p> <p>Date of second calibration: 28/03/2017 Valid thru: 27/09/2017</p> <p>Date of third calibration⁹: 21/09/2017 Valid thru: 20/03/2018</p>
Measuring/reading/recording frequency:	Continues measuring and daily recording frequency
Calculation method (if applicable):	Not Applicable
QA/QC procedures:	A backup meter is installed and can be used in case of mal-functioning of the main meter. In addition, the values (raw data) will be cross-checked with records for sold electricity and invoices for imported electricity. It is important to stress that Planta Eólica Guanacaste and ICE read the values from the same source of raw data (main and backup power meters owned by ICE), however, as each company collects and aggregates the raw data individually, this could lead to a very small differences of the precise values comparing them with the invoices due to a possible deviation of roughly 15 minutes in registered data or even due to rounding issues. However, this does not compromise the QA/QC of the project activity and it is not subject of major concern or necessity of further corrective actions. Nevertheless, as per the monitoring plan of the registered PDD, the electricity readings come from the main meter and the invoices are only used for crosscheck purposes.
Purpose of data/parameter:	Baseline Emissions

⁵ ION 7550 Datasheet

⁶ Verification Report ICE-UVE-2016-0285. Reports available to the auditors

⁷ Verification Report ICE-UVE-2017-0027.

⁸ Verification Report ICE-UVE-2017-0185.

⁹ Verification Report ICE-UVE-2017-0185.

Additional comments:	The net electricity supplied to the grid is the difference between the electricity dispatched to the grid - Export (MWh) and the electricity consumption from the grid - Import (MWh).
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D.3. Implementation of sampling plan

Not applicable.

SECTION E. Calculation of emission reductions or net anthropogenic removals

E.1. Calculation of baseline emissions or baseline net removals

According to ACM0002, the baseline emissions of the project are equal to:

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

Where:

BE_y Baseline emissions in year y (tCO₂/yr)

$EG_{PJ,y}$ 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/yr)

$EF_{grid,CM,y}$ 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).

The $EF_{grid,CM,y}$ was calculated at the moment of the PDD registration and the fixed ex-ante value (using data from years 2005, 2006 and 2007), as stated in section D of this report as 0.3882 tCO₂/MWh.

Month	$EG_{PJ,y}$ (MWh)	$EF_{grid,CM,y}$ (tCO ₂ / MWh)	BE_y (tCO ₂ e) ¹⁰
January 2016	19,658.17	0.3882	7,631.30
February 2016	15,979.12	0.3882	6,203.09
March 2016	24,224.48	0.3882	9,385.13
April 2016	16,047.25	0.3882	6,229.54
May 2016	5,933.20	0.3882	2,303.27
June 2016	5,871.57	0.3882	2,279.34
July 2016	14,319.86	0.3882	5,558.97
August 2016	8,853.99	0.3882	3,437.12
September 2016	2,261.61	0.3882	877.96
October 2016	6,281.94	0.3882	2,438.65
November 2016	15,121.71	0.3882	5,870.25
December 2016	26,828.03	0.3882	10,414.64
Total	161,380.92	-	62,629

E.2. Calculation of project emissions or actual net removals

There are no project emissions attributable to wind projects. Consequently $PE_y = 0$.

¹⁰ Total emission reductions after rounding down.

E.3. Calculation of leakage emissions

There is no leakage attributable to wind projects. Consequently $L_y = 0$.

E.4. Calculation of emission reductions or net anthropogenic removals

	Baseline GHG emissions or baseline net GHG removals (t CO ₂ e)	Project GHG emissions or actual net GHG removals (t CO ₂ e)	Leakage GHG emissions (t CO ₂ e)	GHG emission reductions or net anthropogenic GHG removals (t CO ₂ e)		
				Before 01/01/2013	From 01/01/2013	Total amount
Total	62,629	0	0	0	62,629	62,629

E.5. Comparison of emission reductions or net anthropogenic removals achieved with estimates in the registered PDD

Amount achieved during this monitoring period (t CO ₂ e)	Amount estimated ex ante (t CO ₂ e)
95,225	62,629

E.6. Remarks on increase in achieved emission reductions

The actual values of emission reductions achieved during this monitoring period are 62,629 tCO₂e; 32,596 tCO₂e (34.23%) lower than the values estimated ex ante in the registered PDD for an equivalent amount of time. This is a direct consequence of an equally lower electricity generation, as compared to the estimate used in the PDD (i.e. 161,380.92 MWh/year versus 245,300 MWh/year).

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
06.0	7 June 2017	Revision to: <ul style="list-style-type: none"> • Ensure consistency with version 01.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN); • Make editorial improvements.
05.1	4 May 2015	Editorial revision to correct version numbering.
05.0	1 April 2015	Revisions to: <ul style="list-style-type: none"> • Include provisions related to delayed submission of a monitoring plan; • Provisions related to the Host Party; • Remove reference to programme of activities; • Overall editorial improvement.
04.0	25 June 2014	Revisions to: <ul style="list-style-type: none"> • Include the Attachment: Instructions for filling out the monitoring report form (these instructions supersede the "Guideline: Completing the monitoring report form" (Version 04.0)); • Include provisions related to standardized baselines; • Add contact information on a responsible person(s)/ entity(ies) for completing the CDM-MR-FORM in A.6 and Appendix 1; • Change the reference number from <i>F-CDM-MR</i> to <i>CDM-MR-FORM</i>; • Editorial improvement.
03.2	5 November 2013	Editorial revision to correct table in page 1.
03.1	2 January 2013	Editorial revision to correct table in section E.5.
03.0	3 December 2012	Revision required to introduce a provision on reporting actual emission reductions or net GHG removals by sinks for the period up to 31 December 2012 and the period from 1 January 2013 onwards (EB 70, Annex 11).
02.0	13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the monitoring report form" (EB 66, Annex 20).
01.0	28 May 2010	EB 54, Annex 34. Initial adoption.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: monitoring report		