

**MONITORING REPORT FORM (F-CDM-MR)**
Version 02.0**MONITORING REPORT**

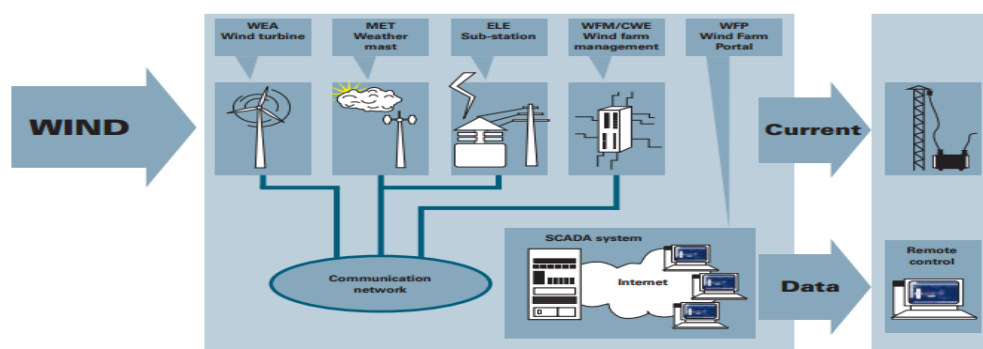
Title of the project activity	Yuntdağ 57.5 MW Wind Power Project
Reference number of the project activity	GS 352
Version number of the monitoring report	5.3
Completion date of the monitoring report	07.06.2013
Registration date of the project activity	31.07.2008
Monitoring period number and duration of this monitoring period	Period 5 (01.01.2012 - 31.12.2012)
Project participant(s)	İnnores Elektrik Üretim A.Ş.
Host Party(ies)	Turkey (Host Country)
Sectoral scope(s) and applied methodology(ies)	ACM0002, Version 6
Estimated amount of GHG emission reductions or net anthropogenic GHG removals by sinks for this monitoring period in the registered PDD	147,076 tCO ₂ e
Actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved in this monitoring period	144,733 tCO₂e

SECTION A. Description of project activity

A.1. Purpose and general description of project activity

Innores Elektrik Üretim AŞ (in the following: Innores) installed and commissioned a 42.5 MW wind power plant in Koyuneli/Bergama/Izmir in Turkey in 2008. Initial project capacity was 42.5 MW consists of 17 turbines with 2.5 MW each, which was increased by 15 MW in 2011 with a revised license for 57.5 MW granted by EMRA to Innores on 09.06.2010.

The increased capacity was also registered under Gold Standard for consideration of emission reduction on 13 of July 2011. Yuntdağ 57,5 MW WPP including additional capacity is consist of 23 wind turbines Nordex N90 of the 2.5 MW output, 90m in diameter and 80m hub height. The wind turbines are connected to the wind farm substation through 34.5 kV underground cables. The voltage is raised to 154 kV and is transferred to the National Electricity System (Alosbi Transformer Station) via a 26 km long transmission line.



Scheme 1: General Schematic Description of Electricity Generation from Wind Turbines

The purpose of the project is to generate electricity and to feed it into the public grid. Yuntdağ WPP shall be registered as a Voluntary Emission Reduction project in order to enable the project implementation by means of financial inflows coming from the credits sale. Because of its significant contribution to climate protection and to sustainable development in the region, this project fulfills the requirements of the Gold Standard Organization.

A.2. Location of project activity

The Project located near Koyuneli village of Bergama district in İzmir, Turkey. The coordinates of the turbines are given below. Yuntdağ 57,5 MW WPP including additional capacity is consist of 23 wind turbines Nordex N90 of the 2.5 MW output, 90m in diameter and 80m hub height. Single line diagram of the project is given in Annex 1.



Turbine	East	North
T01	516633	4313956
T02	516615	4313686
T03	516642	4313426
T04	516697	4313168
T05	516744	4312913
T06	516757	4312647
T07	516772	4312347
T08	516786	4312100
T09	516846	4311849
T10	516854	4311595
T11	516936	431349
T12	517036	4311122
T13	515532	4311741
T14	515563	4311485
T15	515585	4311081
T16	515533	4310674
T17	515431	4310288
T18	516495	4311954
T19	515390	4311545
T20	516120	4311545
T21	516410	4311460
T22	515318	4309878
T23	515573	4309771

A.3. Parties and project participant(s)

Party involved ((host) indicates a host Party)	Private and/or public entity(ies) project participants (as applicable)	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
Turkey (host)	Innores Elektrik Üretim A.Ş.	No

Republic of Turkey: Host country. Turkey has ratified the Kyoto Protocol on 5 February 2009. Turkish National Focal Point to the UNFCCC is the Ministry of Environment and Forestry¹.

A.4. Reference of applied methodology

>> The choice of methodology ACM0002, Version 6.

Tool for the demonstration and assessment of additionality ver.03.

A.5. Crediting period of project activity

07.03.2008 – 06.03.2015 (Crediting period of the project is 7 years which is twice renewable.)

SECTION B. Implementation of project activity

B.1. Description of implemented registered project activity

The project installation is completed according to the description in the PDD and completely operational. The project consists only one site. The most important milestones are included in the following table:

Date	Milestone
25.07.2007	Initial Stakeholder Consultation in Koyuneli Village
07.03.2008	Commissioning of the first 6 turbines: Start of the first crediting period and first monitoring period
18.03.2008	Final Validation Report
04.06.2008	Commissioning of all Turbines.
31.07.2008	Gold Standard Registration
30.04.2009	End of the first monitoring period
31.03.2010	End of the second monitoring period
09.06.2010	Licence granted by EMRA for capacity extension
31.12.2010	End of the third monitoring period
01.04.2011	Start date of construction for capacity extension
13.07.2011	Registration of capacity extension under Gold Standard
28.09.2011	Commissioning of 4 turbines which is belongs to capacity extension
31.12.2011	End of fourth monitoring period
19.01.2012	Date of the commissioning of remaining Turbines
31.12.2012	End of fifth monitoring period

B.2. Post registration changes

B.2.1. Temporary deviations from registered monitoring plan or applied methodology

>>There is no revision in the monitoring plan of the project

¹ UNFCCC, list of the National Focal Points <http://maindb.unfccc.int/public/nfp.pl?mode=wim> (accessed in April 2010)

B.2.2. Corrections

>>No deviation applied.

B.2.3. Permanent changes from registered monitoring plan or applied methodology

>> There is no any other changes than stated above.

B.2.4. Changes to project design of registered project activity

>> Project has been extended its capacity to 57.5 MW October 2011 and in January 2012.

B.2.5. Changes to start date of crediting period

>>The start date of crediting period is 07.03.2008.

B.2.6. Types of changes specific to afforestation or reforestation project activity

>> N/A

SECTION C. Description of monitoring system

>> The crediting period starts with the commissioning of the plant, exactly with the first day of documented electricity supply to the grid. The expected yearly net electricity generation is listed in the table below. As the crediting period is to start in March 2008, the estimated emission reductions from the first and last year of the crediting period sum up to the amount of the estimated yearly reductions.

Data Processing and Archiving**C.1.1. Data Processing**

Data handling is carried out according to the description in the PDD. The officials from TEİAŞ perform monthly the measurements for both the primary and secondary device, under the control of the plant personnel of Innores. The TEİAŞ personnel comes to the plant in the first days of the month for reading the recorded values obtained at 24:00 of the last day of the month before. A reading protocol is then signed by both parties. An invoice (receipt of sale) is prepared by Innores and delivered to TEİAŞ.

As the necessary baseline emission factors are all defined ex ante, the only information to be monitored is the amount of electricity fed into the grid by Yuntdağ WPP. The data will be taken from the monthly meter readings, documented in the “meter reading record”.

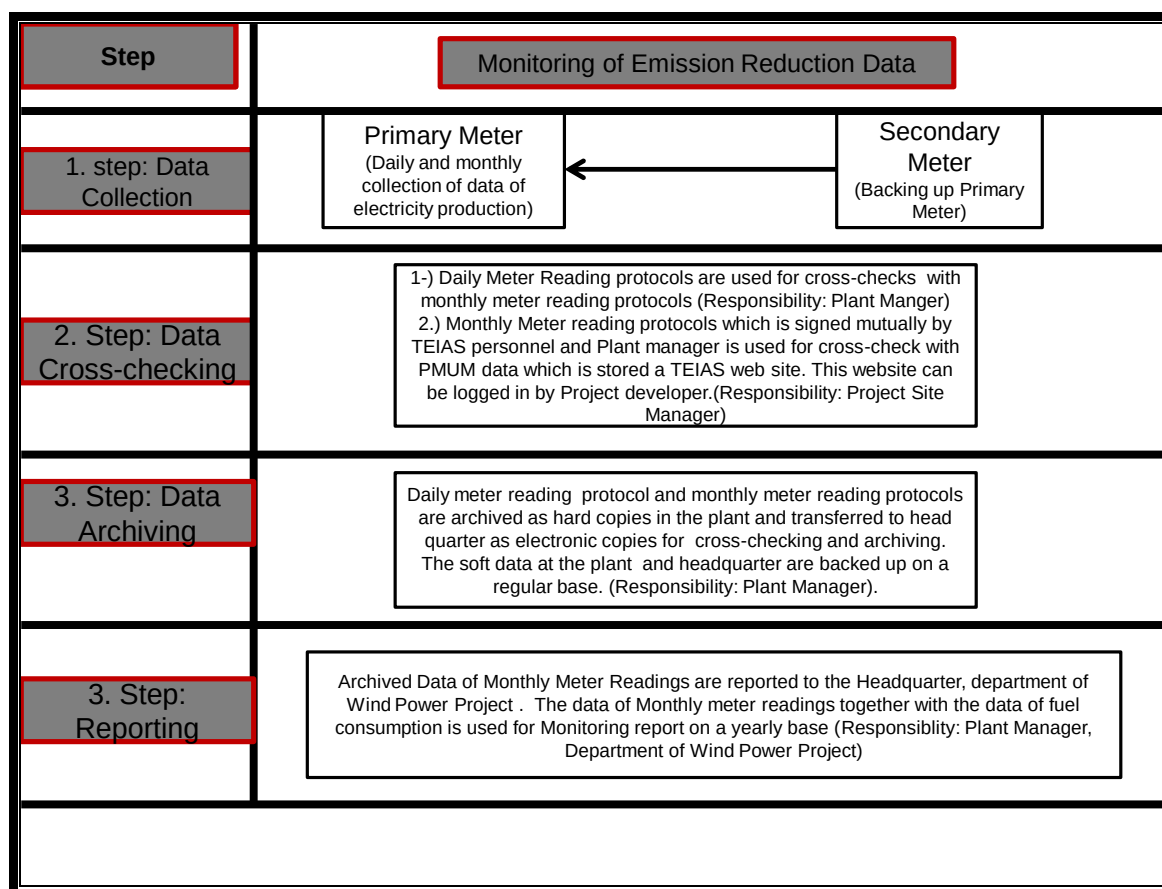
C.1.2. Back up Unit for Systematic Storage

The fact that two reliable best practice meters are installed in a redundant manner keeps the uncertainty level of the only parameter for baseline calculation low. High data quality of this parameter is not only in the interest of the emission reduction monitoring, but paramount for the

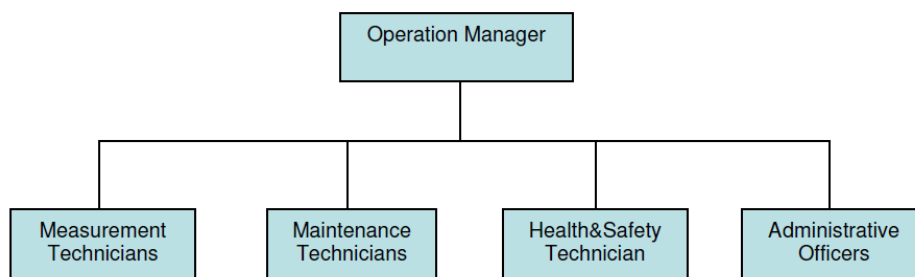
business relation between the plant operator and the electricity buyer. Since the meters are reading electricity supplied to the system and withdrawn from the system separately, the net electricity amount supplied to the grid will be calculated by electricity supplied minus electricity withdrawn which will be taken from monthly settlement notifications.

Monthly data from TEIAS are stored electronically on TEIAS website and this data can be accessed by login of Project Developer.² Innores also stores a hardcopy of the monthly meter reading protocols for back up of systematic storage of data.

Moreover, there are always internal reviews of the meters data which is checked by different parties. First of all, data of the meters is collected by technicians daily in written forms. The data collected daily is saved in plant manager computer and backed up and shared by headquarter of Innores in Istanbul. Besides the data that can be get from meters, production amount can be checked from SCADA system of Nordex. SCADA figures differs a bit with meter data due to internal losses.



²<http://pmum.teias.gov.tr/UzlasmaWeb/>

Figure 1: Line diagrams showing all relevant monitoring points**Figure 2:** Operation and management diagram

C.2. Calibration Procedures:

The calibration of the monitoring equipment was carried out according to the information provided in the GS-VER PDD. The GS-VER PDD mainly includes the following obligation for the calibration of the appropriate meters:

“The Turkish Electricity Market Regulation Agency (EPDK) sets rules on the accuracy of electricity meters that are used by power plants feeding into the grid. The rules are part of the EPDK regulation 25056 from 22 March 2003. The table in Article 11 of the regulation specifies the use of electricity meters of the accuracy class 0.5S for power plants between 10 MW and 100 MW and refers to compliance with International Electrotechnical Commission’s norm EN 60687. TEİAŞ, whose employees will monthly visit the plant for the meter readings, is in charge of ensuring the adherence to these rules. Calibration and maintenance procedures will follow the requirements.”

During fifth monitoring period, there was no need for calibration of electricity meters.

C.3. Troubleshooting Procedures

As the measuring devices are sealed by TEİAŞ, Innorec cannot intervene with the devices. In case of unforeseen problems or failures of the meters or if any differences occur between primary and secondary devices TEİAŞ has to be informed for necessary maintenance and calibration. There is an agreement between Innorec and TEİAŞ that in case of problems or failures of the meters TEİAŞ reacts as fast as possible to solve the problem. There was no trouble shooting occurred during fourth monitoring period.

C.4. Special Events

Commissioning of 2 new turbines form 15 MW capacity extension took place on 19th of January.2012 in the fifth monitoring period.

Regarding the capacity extension, there is no new meter for installed capacity. The existing infrastructure is used to connect extended turbines to the system.

Apart from extension of the capacity there is no overhaul times, downtimes of equipment and exchange of equipment.

SECTION D. Data and parameters

D.1. Data and parameters fixed ex ante or at renewal of crediting period

Data / Parameter:	Gross electricity production
Data unit:	MWh
Description:	Electricity supplied to the grid by relevant sources (2003-2005)
Source of data used:	Turkish Electricity Transmission Company (TEİAŞ), Annual Development of Turkey's Gross Electricity Generation of Primary Energy Resources (1940-2005) http://www.teias.gov.tr/istatistik2005/35.xls
Value applied:	Registered PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	TEİAŞ is the national electricity transmission company, which makes available the official data of all power plants in Turkey.
Any comment:	

Data / Parameter:	Net electricity production
Data unit:	MWh
Description:	Net electricity delivered into the grid. Used for the calculation of the net/gross relation
Source of data used:	Turkish Electricity Transmission Company (TEİAŞ), Annual Development of Electricity Generation- Consumption and Losses in Turkey (1984-2005), http://www.teias.gov.tr/istatistik2005/34.xls
Value applied:	Registered PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	TEİAŞ is the national electricity transmission company, which makes available the official data of all power plants in Turkey.



Any comment:	
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Data / Parameter:	CO₂ emissions
Data unit:	tCO ₂
Description:	CO ₂ emissions generated due to electricity production (2003-2005)
Source of data used:	Fuel consumption data: Turkish Electricity Transmission Company (TEİAŞ), see http://www.teias.gov.tr/istatistik2005/46.xls Emission Factors and Net Calorific Values (NCVs): Revised 2006 IPCC Guidelines: Volume 2: Energy
Value applied:	Registered PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	Annual CO ₂ emissions are calculated based on the consumption data from all the power plants in Turkey, based on data from TEİAŞ, the national electricity transmission company, where the country specific emission factors and net calorific values are taken from the official IPCC Guidelines for National Greenhouse Gas Inventories.
Any comment:	

Data / Parameter:	List of BM power plants with capacity
Data unit:	Name of a power plant, MW, fuel type, date of operation
Description:	List of the power plants build between 03/2003 and 08/2007 along with their capacities, fuel type and the date of operation;
Source of data used:	Turkish Electricity Transmission Company (TEİAŞ) http://www.teias.gov.tr/
Value applied:	Registered PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	TEİAŞ is the national electricity transmission company, which makes available the official data of all power plants in Turkey. The list of power plants is not completely publicly available, but was provided for the purpose of determining the build margin.
Any comment:	

Data / Parameter:	Full load hours per energy source
Data unit:	H
Description:	Amount of the full load hours regarding the different plant types

	(2004-2006)
Source of data used:	Turkish Electricity Transmission Company (TEİAŞ) http://www.teias.gov.tr/istatistik2005/3.xls , http://www.tuik.gov.tr/PreHaberBultenleri.do?id=464&tb_id=3 , http://www.teias.gov.tr/yukdagitim/kuruluguc.xls and http://www.teias.gov.tr/istatistik2005/35.xls
Value applied:	Registered PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	TEİAŞ is the national electricity transmission company, which makes available the official data of all power plants in Turkey.
Any comment:	The data was calculated from the installed capacity [MW] and the amount of the generated electricity [MWh] from the different plant types.

Data / Parameter:	Technology specific emission factor of the 20%-plants
Data unit:	tCO ₂ /MWh
Description:	Calculated specific emission factors based on the carbon emission factor data and the electrical efficiency data for all relevant energy sources (natural gas, lignite, coal/anthracite, fuel/motor oil).
Source of data used:	1. TEİAŞ: http://www.teias.gov.tr/istatistik2005/47.xls 2. TEİAŞ: http://www.teias.gov.tr/istatistik2005/35.xls 3. “2006 IPCC Guidelines for National Greenhouse Gas Inventories”, Volume 2, Energy (carbon emission factor) 4. European Commission Report (July 2006): Integrated Pollution Prevention and Control (IPPC) - Best Available Techniques for Large Combustion Plants (electrical efficiency for lignite, coal/anthracite, fuel/motor oil)
Value applied:	registered PDD
Justification of the choice of data or description of measurement methods and procedures actually applied :	There are not available power plant specific efficiency data for Turkey. Therefore the conservative data from the IPCC European Commission Report and German Federal Environmental Agency was used.
Any comment:	

Data / Parameter:	Emission Factor, EF
Data unit:	tCO ₂ /MWh
Description:	Emission factor of the Turkish grid determined ex- ante. Calculated specific emission factors based on the carbon emission data and the electricity production of the grid
Source of data used:	Please see registered PDD
Value applied:	0.7086 tCO ₂ /MWh
Justification of the choice of data or description of measurement methods and procedures actually applied :	Please register PDD.
Any comment:	

D.2. Data and parameters monitored

Data / Parameter:	Net Electricity Production
Data unit:	MWh
Description:	Net electricity delivered into the grid.
Measured /Calculated /Default:	Measured
Source of data:	Main meter readings
Value(s) of monitored parameter:	204,249.90 MWh
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline calculation
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Main Electricity Meter with accuracy class of 0.2S. Manufacturer: CIRWAT Model: 402 - LT5A - 29D Serial Number: 342724941 Date installation and calibration: 30.11.2007 Back Up Electricity Meter with accuracy class of 0.2S. Manufacturer: CIRWAT Model: 402 - LT5A - 29D Serial Number: 342724903 Date installation and calibration: 26.12.2007
Measuring/ Reading/	Continuously



Recording frequency:	
Calculation method (if applicable):	-
QA/QC procedures applied:	The calibration of the monitoring equipment was carried out according to the information provided in the GS-VER PDD. The GS-VER PDD mainly includes the following obligation for the calibration of the appropriate meters: “The Turkish Electricity Market Regulation Agency (EPDK) sets rules on the accuracy of electricity meters that are used by power plants feeding into the grid. The rules are part of the EPDK regulation 25056 from 22 March 2003. The table in Article 11 of the regulation specifies the use of electricity meters of the accuracy class 0.5S for power plants between 10 MW and 100 MW and refers to compliance with International Electrotechnical Commission’s norm EN 60687. TEIAS, whose employees will monthly visit the plant for the meter readings, is in charge of ensuring the adherence to these rules. Calibration and maintenance procedures will follow the requirements.”

SECTION E. Calculation of emission reductions or GHG removals by sinks

E.1. Calculation of baseline emissions or baseline net GHG removals by sinks

>> Used Formulas:

The total emission reductions can be calculated with the results of the below described equations. The emission reduction is equal to the baseline emissions minus project emissions and leakage emissions. Leakage emissions in this project are considered to be negligible. There are no project emissions in this kind of project. The general equation is as follows:

$$ER_y = BE_y - PE_y - L_y \quad (1)$$

Where:

ER_y = Emission reduction

BE_y = Baseline emissions

PE_y = Project emissions

L_y = Leakage

y = Refers to a given period

The electricity meters are measuring two parameters: The electricity supplied to the grid (EG_{export}) and the electricity consumption from the grid (EG_{import}). To achieve the net amount of supplied electricity, the difference has to be calculated:

$$GEN_y = EG_{export} - EG_{import} \quad (2)$$

Where:

GEN_y = Net electricity supplied to the Grid in MWh (ID 1)

EG_{export} = Electricity supplied to the Grid in MWh

EG_{import} = Electricity consumption from the Grid in MWh

According to the applied methodology version the emission reduction is the baseline emissions calculated as the net electricity supplied to the grid multiplied by the grid emission factor.

$$BE_y = GEN_y * EF \quad (3)$$

Where:

BE_y = Baseline emissions in tonnes CO₂e

EF = Grid emission factor for the electricity displaced due to the project activity during the year y [tCO₂e/MWh].

GEN_y = Net electricity supplied to the Grid in MWh (ID 1)

y = Refers to a given period

E.2. Calculation of project emissions

>> There are no project emissions in this kind of project. There was a diesel generator in Yuntđağ 57.5 MW WPP project for emergency cases; however while this generator was not used so often, it was transferred from the plant on 14.10.2009. A battery system was installed in the plant to supply electricity when there is a need.

E.3. Calculation of leakage

>> No leakage needs to be considered.

E.4. Summary of calculation of emission reductions or net anthropogenic GHG removals by sinks

The baseline emissions for the project activity according to the PDD are included in the following table:

Table 3: Baseline Emissions (01.01.2012 - 31.12.2012)

BASELINE EMISSIONS AMOUNT (01.12 - 12.12)				
Months	Electricity supplied to the grid (MWh) (1)	Electricity consumption from the grid (MWh) (2)	Net electricity supplied to the grid[MWh] (3) = (1)-(2)	Baseline emission (acc. formulae 3): (ER = GEN * EF) [t CO ₂ e]
January 2012	18,453.82	19.55	18,434.27	13,063
February 2012	13,381.47	17.46	13,364.01	9,470
March 2012	15,085.17	24.75	15,060.42	10,672
April 2012	12,386.12	17.22	12,368.90	8,765
May.12	8,294.24	35.72	8,258.52	5,852
June 2012	21,344.53	19.24	21,325.29	15,111
July 2012	26,170.68	2.65	26,168.03	18,543
August 2012	25,971.95	4.10	25,967.85	18,401
September 2012	16,242.04	19.61	16,222.43	11,495
October 2012	11,765.93	24.15	11,741.78	8,320
November 2012	19,385.18	11.63	19,373.55	13,728
December 2012	15,985.00	20.15	15,964.85	11,313
SUM'12	204,466.13	216.23	204,249.90	144,733.00

Applying the above equation to the project data given in table for calculation, baseline emissions in 2012 are as below. As also presented in 5th column of the table:

Baseline Emission in 2012:

$$BE_{\text{Jan'12-Dec'12}} = 204,49.9 \text{ [MWh]} * 0.7086 \text{ [tCO}_2\text{/MWh]} = 144,733.00 \text{ tCO}_2\text{e}^3$$

³ The calculation is carried out in a separate Excel file, which considers the values with more decimal places than presented here. The exact calculation is available for verification.

E.5. Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Item	Values estimated in ex-ante calculation of registered PDD	Actual values achieved during this monitoring period
Emission reductions or GHG removals by sinks (tCO ₂ e)	147,076 tCO ₂ e	144,733 tCO ₂ e

E.6. Remarks on difference from estimated value in registered PDD

>> There has been less wind than expected. The percent error is 0.3 %. It is negligible.

SECTION F. Sustainable Monitoring Report

According to the requirements of Gold Standard, the project activity must be assessed against a matrix of sustainable development indicators. Project activity's contribution to sustainable development is based on indicators of;

- environmental sustainability,
- social sustainability & development
- economic & technological development

For the fifth verification period, two indicators were added to the monitoring report in line with PDD.

During fifth verification period, the indicators as “local job creation” and “bird collusion” are presented in the report to show the continuation positive impact of the project for local people . All documents related with the indicators were presented to DOE.

F.1. Monitored Sustainable Development Indicators (In Registered PDD)**F.1.1 Monitored Sustainable Development Indicators****Table 4:** Monitored indicators

Sustainable Development Indicators	Data Variable	Measured (m), calculated (c), or estimated	Rationale
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		(e)	
Local job creation	Number and type of jobs and completed trainings	M	The direct creation of new jobs is one major positive social impact of the project activity. The project activity creates a respectable number of permanent and high qualified jobs (See table 7 and 8). Many of these additional positions are filled by local people as well. While permanent jobs for operation of power plant is filled by locals, during construction phase it was not materialized how much portion of employment was local that is why the column for local employment in table 8 left blank. Moreover, additional jobs are created at technology suppliers and service and consultancy providers. Although the staff working in the project was mainly trained for new technology during previous verification periods, there were four new trainings for the plant staff during fourth verification period (see table 5). Moreover, as it can be seen from the table 6, project developer prepared a training plan for next monitoring period.
Bird collisions	Number of observed bird strikes	M	Regarding affects of Turbines on biodiversity, mayors of villages have reported no bird strikes. Statement of Mayor is presented to Verifier.

F.1.2 Staff Trainings

Concerning local job creation, employed staff by Yuntđađ 57.5 MW WPP was trained to increase their capabilities to handle their jobs efficiently. These kinds of trainings contribute job creation as well as human and institutional capacity. Description of the training, administration of the training program, attendee and duration of the training are provided below.

Besides trainings of the staff, Yuntđađ 57.5 MW WPP has positive impact on local community and surrounding villages. Management of wind power plant signed a protocol with Directorate of National Education of Bergama District and İsmaili village for a duration of two years. The aim of the protocol is to inform students by informational trips about wind power plants. This activity which is supported by power plant increases institutional capacity of the local community.

Besides new trainings that took place, Innore planned new refreshing trainings for 2012 as in the table5.

Table 5: Trainings



Name – Surname	Training Type	Administrated by	Date
İsa Alkan	Theoretical and practical safety instruction climbing a wind turbine	TrioWind Certificate	14-15. Feb. 2012
İsa Alkan	Wind turbine training	Concycle - Woodward	20 – 24.03.2012
İsa Alkan	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
İsa Alkan	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	(Certificate is valid through: 08.08.2015)
Hasan Soyer	Theoretical and practical safety instruction climbing a wind turbine	TrioWind Certificate	14-15. Feb. 2012
Hasan Soyer	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
Hasan Soyer	Wind turbine training	Concycle - Woodward	20 – 24.03.2012
Hüseyin Vergili	Wind turbine training	Concycle - Woodward	20 – 24.03.2012
Hüseyin Vergili	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	(Certificate is valid through: 08.08.2015)
Hüseyin Vergili	Theoretical and practical safety instruction climbing a wind turbine	TrioWind Certificate	14-15. Feb. 2012
Hüseyin Vergili	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
Nail Öz	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	(Certificate is valid through: 16.08.2015)
Nail Öz	Theoretical and practical safety instruction climbing a wind turbine	TrioWind Certificate	11 – 12. August. 2012
Nail Öz	Training on safety and security at workplace	DETAM Ltd. Sti.	10.08.2012
İbrahim Artan	Theoretical and practical safety instruction climbing a wind turbine	TrioWind Certificate	14-15. Feb. 2012
İbrahim Artan	Wind turbine training	Concycle - Woodward	20 – 24.03.2012
İbrahim Artan	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
Adem Gülççek	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
Adem Gülççek	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	07 – 08.08.2012
M. Zeki Yıldız	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	07 – 08.08.2012

M. Zeki Yıldız	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
Necmettin Arıcı	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	07 – 08.08.2012
Necmettin Arıcı	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
Mehmet Girginler	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	07 – 08.08.2012
Mehmet Girginler	Basic Training on Operative Technician	TEIAS	07.09.2012
Alaattin Kanat	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
Alaattin Kanat	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	07 – 08.08.2012
Ali Köycüoğlu	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	07 – 08.08.2012
Ali Köycüoğlu	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012
Erdal Karakuzu	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	07 – 08.08.2012
Feridun Çelik	Training on First Aid	Akademi İlk Yardım Eğitim Merkezi	07 – 08.08.2012
Feridun Çelik	Training on safety and security at workplace	DETAM Ltd. Sti.	11.05.2012

F.2. Employment Created During Project Activities

F.2.1 Employment Created During Operation of the WPP

Table 7: Employment during Operation

Employment	Description	Number of employee	Training?	Employee; Local or Not?
Technical Manager	Responsible for operational organizations and Izmir technical office. Coordinates the works with grid and turbine supplier companies.	1	Yes	Not Local
Operative Manager	Responsible for all kind of operational activities as well as maintenance and management.	1	Yes	Not Local

	Reports to Izmir technical office and head office in Istanbul.			
Operative and Maintenance Technician	Work on alternating shifts. Responsible from maintenance.	4	Yes	Not Local
Electric Technicians:	Work on alternating shifts. Apart from routine controls, intervene to electrical breakdowns.	4	Yes	Not Local
Security Guards:	Work on alternating shifts, maintain security of plant.	4	Yes	Local

Table 8: Employment Records

Name – Surname	Position	Residency
Isa Alkan	Operative Manager	Not Local
Ibrahim Artan	Operative and Maintenance Tech.	Not Local
Hasan Soyer	Operative and Maintenance Tech.	Not Local
Hüseyin Vergili	Operative and Maintenance Tech.	Not Local
Nail Öz	Operative and Maintenance Tech.	Not Local
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Mehmet Girginler	Electric Tech.	Not Local
O. Adem Gülçiçek	Electric Tech.	Not Local
Ali Köycüoğlu	Security Guard	Local
Alaattin Kanat	Security Guard	Local
Feridun Çelik	Security Guard	Local
Erdal Karakuzu	Security Guard	Local

SECTION G. Open Issues From Validation (FAR)

FAR1: Please provide the provisional acceptance documents of the last two commissioned turbines.

Response: The document of provisional acceptance was provided to DOE.

FAR2: As per the information given in the pre-EIA, the project is recommended to install lighting facility for the night birds where white light shall not be applied. Hence, the PP is requested to further find out if such lighting facility shall be in place for the plant or not which shall be supported by credible information source and/or further clarified by an ornithologist view if needed considering both migrating and local bird movements. Verifying DOE shall please check if such required measures in place or not as per the study findings.



Response: The lighting is not necessary for night birds to realize or avoid turbines. There is no any example application on this manner neither in Turkey nor in the world. Besides, wind turbines have red blinking light on the top of control box. Turbines in Yuntdag also have that type of lighting.

For more information;

1. Kerlinger, P. (2010) Night Migrant Fatalities and Obstruction Lighting at Wind Turbines in North America" .The Wilson Journal of Ornithology 122(4):744–754, 2010. Page: 750-751
2. International Dark-Sky Association, Effects of Artificial Light at Night on Wildlife page:2,3,4

Annex 1: Contact Information of Project Consultant

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History of the document

Version	Date	Nature of revision
02.0	EB 66 13 March 2012	Revision required ensuring consistency with the "Guidelines for completing the monitoring report form" (EB 66, Annex 20).
01	EB 54, Annex 34 28 May 2010	Initial adoption.
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