

**MONITORING REPORT FORM (CDM-MR) \***  
**Version 01 - in effect as of: 28/09/2010**

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\* as contained within the document entitled "Guidelines for completing the monitoring report form (CDM-MR)" (EB 54 meeting report, annex 34).

**MONITORING REPORT**  
**Version 4.3 and 13/02/2012**  
**GRID CONNECTED ELECTRICITY GENERATION FROM RENEWABLE SOURCES:**  
**YUNTDAĞ 57.5 MW WIND POWER PROJECT,**  
**Project ID: GS 352**  
**Monitoring period dates: (01.01.2011 – 31.12.2011)**

**SECTION A. General description of the project activity**

**A.1. Brief description of the project activity: >>**

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

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. After 2.5 years in operation, Innores Elektrik Üretim A.Ş. decided to increase each of which has a capacity of 2.5 MW. The increased capacity was also registered under Gold Standard for consideration of emission reduction and GS-VER revenue on 13 of June 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 will be 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.

**A.2. Project Participants**

Project owner is Innores Elektrik Üretim AŞ (in the following: Innores).

**A.3. Location of the project activity:**

The Project located near Koyuneli village of Bergama district in İzmir, Turkey. The coordinates of the turbines are given below.

**Table 1:** Coordinates of the turbines

Turbine	East	North
T01	516633	4313956
T02	516615	4313686
T03	516642	4313426
T04	516697	4313168
T05	516744	4312913
T06	516757	4312647
T07	516772	4312389
T08	516786	4312100
T09	516846	4311849
T10	516854	4311595
T11	516936	4311349
T12	517036	4311122
T13	515532	4311741

T14	515563	4311485
T15	515585	4311081
T16	515533	4310674
T17	515431	4310288
T18	516495	4314214
T19	515390	4311954
T20	516120	4311545
T21	516410	4311460
T22	515318	4309878
T23	515573	4309771

#### **A.4. Technical description of the project**

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.

#### **A.5. Title, reference and version of the baseline and monitoring methodology applied to the project activity:**

The reference for Baseline and Monitoring methodology is the following;  
“Consolidated baseline methodology for grid-connected electricity generation from renewable sources (ACM0002) Version 6”<sup>1</sup>

#### **A.6. Registration date of the project activity:**

Gold Standard Validation date: 18 March 2008  
Gold Standard Registration date: 31 July 2008  
Gold Standard Number: GS352

#### **A.7. Crediting period of the project activity and related information (start date and choice of crediting period):**

Crediting period of the project is 7 years which is twice renewable. Crediting period starts from 07/03/2008 to 06/03/2015

#### **A.8. Name of responsible person(s)/entity(ies):**

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<sup>1</sup> [http://cdm.unfccc.int/UserManagement/FileStorage/CDMWF\\_AM\\_BW759ID58ST5YEEV6WUCN5744MN763](http://cdm.unfccc.int/UserManagement/FileStorage/CDMWF_AM_BW759ID58ST5YEEV6WUCN5744MN763)

## **SECTION B. Implementation of the project activity**

### **B.1. Implementation status of the project activity**

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

**Table 2:** Project milestones

<b>Date</b>	<b>Milestone</b>
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
14.01.2012	Planned date for the commissioning of remaining Turbines

There is no any other changes than stated above.

### **B.2. Revision of the monitoring plan**

There is no revision in the monitoring plan of the project

### **B.3. Request for deviation applied to this monitoring period**

No deviation applied.

### **B.4. Notification or request of approval of changes**

No notification or request of approval of changes from the project activity as described in the registered PDD.

## **SECTION C. Description of the monitoring system**

### **C.1 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. A Backup 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<sup>2</sup>. 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.

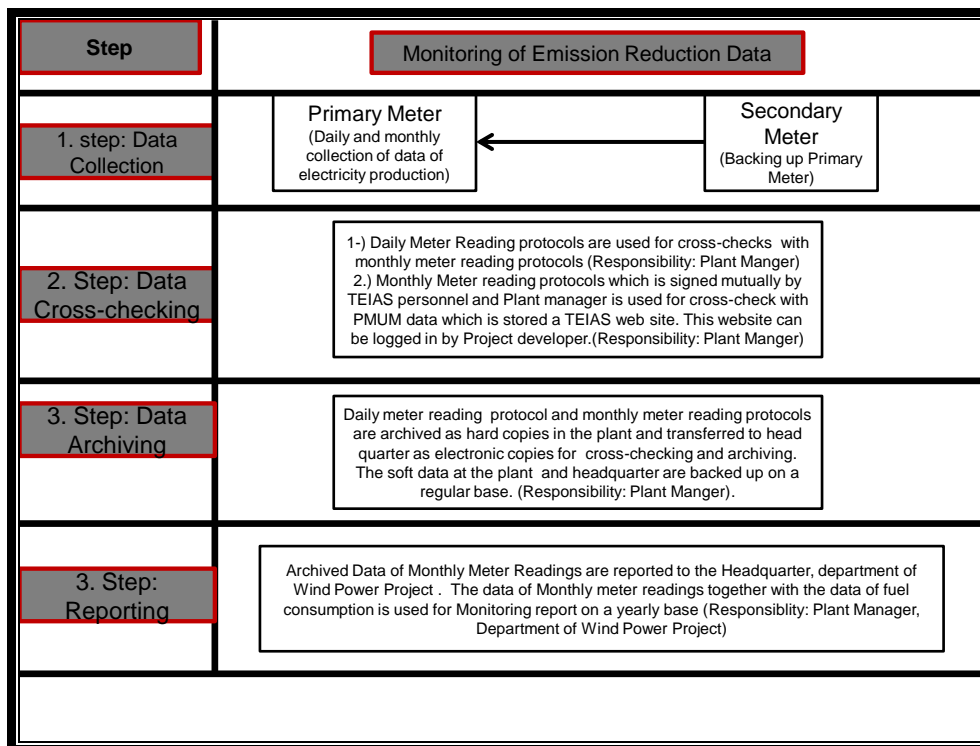


Figure1: Line diagrams showing all relevant monitoring points

### C.1.3 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. TEIAS, whose

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

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

#### C.1.4. Troubleshooting Procedures

As the measuring devices are sealed by TEİAŞ, Innores 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 Innores 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 troubleshooting occurred during fourth monitoring period.

#### C.1.5. Special Events

During the fourth monitoring period, project developer implemented extension plan for Yuntdağ 42.5 WPP with extension of 15 MW. Capacity extension of the project is registered under Gold Standard during 4. Monitoring period. While the decision is dated to August 2010, project developer started construction for capacity extension on 01.04.2011.

All of the 6 new turbines began to produce energy but until provisional acceptance is realized, all production is “test production”. This amount of production is recorded by meters and is determined by a protocol on day of provisional acceptance. Four of the new turbines have started selling electricity to the grid on 27.09.2011. 2 of them are still in the phase of testing and planned to commissioned by 12.01.2012. 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 determined at registration and not monitored during the monitoring period, including default values and factors

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) <a href="http://www.teias.gov.tr/istatistik2005/35.xls">http://www.teias.gov.tr/istatistik2005/35.xls</a>
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 fed 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), <a href="http://www.teias.gov.tr/istatistik2005/34.xls">http://www.teias.gov.tr/istatistik2005/34.xls</a>
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:	

<b>Data / Parameter:</b>	<b>CO<sub>2</sub> emissions</b>
Data unit:	tCO <sub>2</sub>
Description:	CO <sub>2</sub> emissions generated due to electricity production (2003-2005)
Source of data used:	Fuel consumption data: Turkish Electricity Transmission Company (TEİAŞ), see <a href="http://www.teias.gov.tr/istatistik2005/46.xls">http://www.teias.gov.tr/istatistik2005/46.xls</a> 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 <sub>2</sub> 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:	

<b>Data / Parameter:</b>	<b>List of BM power plants with capacity</b>
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) <a href="http://www.teias.gov.tr/">http://www.teias.gov.tr/</a>
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:	

<b>Data / Parameter:</b>	<b>Full load hours per energy source</b>
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) <a href="http://www.teias.gov.tr/istatistik2005/3.xls">http://www.teias.gov.tr/istatistik2005/3.xls</a> , <a href="http://www.tuik.gov.tr/PreHaberBultenleri.do?id=464&amp;tb_id=3">http://www.tuik.gov.tr/PreHaberBultenleri.do?id=464&amp;tb_id=3</a> , <a href="http://www.teias.gov.tr/yukdagitim/kuruluguc.xls">http://www.teias.gov.tr/yukdagitim/kuruluguc.xls</a> and <a href="http://www.teias.gov.tr/istatistik2005/35.xls">http://www.teias.gov.tr/istatistik2005/35.xls</a>
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.

<b>Data / Parameter:</b>	<b>Technology specific emission factor of the 20%-plants</b>
Data unit:	tCO <sub>2</sub> /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: <a href="http://www.teias.gov.tr/istatistik2005/47.xls">http://www.teias.gov.tr/istatistik2005/47.xls</a> 2. TEİAŞ: <a href="http://www.teias.gov.tr/istatistik2005/35.xls">http://www.teias.gov.tr/istatistik2005/35.xls</a> 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:	

<b>Data / Parameter:</b>	<b>Emission Factor, EF</b>
Data unit:	tCO <sub>2</sub> /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 tCO2/MWh
Justification of the choice of data or description of measurement methods and procedures actually applied :	Please registered PDD.
Any comment:	

## D.2. Data and parameters monitored

<b>Data / Parameter:</b>	<b>Net Electricity Production</b>
Data unit:	<b>MWh</b>
Description:	Net electricity fed into the grid.
Measured /Calculated /Default:	Measured
Source of data:	Main meter reading protocol
Value(s) of monitored parameter:	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 0.5S. Manufacturer: CIRWAT Model: 402-LT5A-29D Serial Number: 342724941 Date installation and calibration: 30.11 2007
Measuring/ Reading/ Recording frequency:	Continuously
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. Emission reductions calculation

### E.1. Baseline emissions calculation

#### B.3.1. 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<sub>y</sub> = Emission reduction

BE<sub>y</sub> = Baseline emissions

PE<sub>y</sub> = Project emissions

L<sub>y</sub> = Leakage

y = Refers to a given period



The electricity meters are measuring two parameters: The electricity supplied to the grid (EGexport) and the electricity consumption from the grid (EGimport). 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 CO<sub>2</sub>e

$EF$  = Grid emission factor for the electricity displaced due to the project activity during the year y [tCO<sub>2</sub>e/MWh].

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

y = Refers to a given period

## E.2. Project emissions calculation

There are no project emissions in this kind of project. There was a diesel generator in Yuntdağ 42.5 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. Leakage calculation

No leakage needs to be considered.

## E.4. Emission reductions calculation / table

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

**Table 3:** Baseline Emissions (01.01.2011-31.12.2011)

Baseline Emissions (January 2011-December 2011)				
	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 <sub>2</sub> e]
<b>Jananuary 11</b>	11.489,020	20,870	11.468,150	8.126,331
<b>February 11</b>	13.496,990	14,140	13.482,850	9.553,948
<b>March 11</b>	13.078,670	14,310	13.064,360	9.257,405
<b>April 11</b>	15.789,690	9,910	15.779,780	11.181,552
<b>May.11</b>	10.697,220	14,340	10.682,880	7.569,889
<b>June 11</b>	10.970,070	16,640	10.953,430	7.761,600
<b>July 11</b>	12.260,050	15,610	12.244,440	8.676,410

<b>August 11</b>	24.307,680	1,080	24.306,600	17.223,657
<b>September 11</b>	24.386,940	4,350	24.382,590	17.277,503
<b>October 11</b>	20.894,910	23,690	20.871,220	14.789,346
<b>November 11</b>	24.291,390	13,830	24.277,560	17.203,079
<b>December 11</b>	13.973,810	23,910	13.949,900	9.884,899
<b>Total SUM 2011</b>	<b>195.636,440</b>	<b>172,680</b>	<b>195.463,760</b>	<b>138.505,620</b>

#### E.4.1. Summary of Baseline emissions:

Applying the above equation to the project data given in table for calculation, baseline emissions in 2011 are as below. as also presented in 5<sup>th</sup> column of the table:

Baseline Emission in 2011:

$$BE_{\text{Jan'11-Dec'11}} = 195,463 \text{ [MWh]} * 0.7086 \text{ [tCO}_2\text{/MWh]} = 138,505 \text{ tCO}_2^3$$

#### E.4.2. Project Emissions and Leakage:

Zero.

#### E.4.3. Summary of the emissions reductions during the monitoring period:

According to the general equation:  $ER_y = BE_y = EF * GEN_y$

Emission reduction = Baseline emissions = Emission Factor \* Supplied Net Electricity

<b>Emission reductions generated during the fourth monitoring period (1 January 2011 to 31 December 2011)</b>	<b>138,505 tCO<sub>2e</sub></b>
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### E.5. Comparison of actual emission reductions with estimates in the CDM-PDD

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This section includes a comparison of actual values of the emission reductions achieved during the monitoring period with the estimations in the registered CDM-PDD. Estimation of emission reduction was quoted from Registered PDD version 04 dated 03 May 2011.

<b>Item</b>	<b>Values applied in ex-ante calculation of the registered CDM-PDD</b>	<b>Actual values reached during the monitoring period</b>
<b>Emission reductions (tCO<sub>2e</sub>)</b>	147,076	138,505

### E.6. Remarks on difference from estimated value in the PDD

Actual emission reduction amount is less than assumed amount in the PDD due to the delay of commissioning of two turbines.

<sup>3</sup> 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.

## SECTION F. Sustainable Monitoring Report

### F.1. Sustainable Development Indicators

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 fourth verification period, three indicators were added to the monitoring report in line with PDD. All of the indicators are monitored due to new construction for capacity extension. The indicator of "Use of the new road" was verified during fourth verification with interviews with local. Additionally, the table related with employment during construction of capacity extension is added to monitor employment creation.

During fourth verification period, the indicators as "local job creation" "Use of new road" and "bird collision" 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.1.1 Monitored Sustainable Development Indicators

**Table 4:** Monitored indicators

Sustainable Development Indicators	Data Variable	Measured (m), calculated (c), or estimated (e)	Rationale
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.
Use of the new road		e	The new road is one of positive effect of the project activity which enables less traffic through the village center and a better connection to the surroundings, especially as the road is asphalted. This positive impact can be documented by interviewing with the village's officials, including the mayor of the village about their impression of changes in the traffic.

### F.1.2 Staff Trainings

Concerning local job creation, employed staff by Yuntdağ 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, Yuntdağ 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, Innorec planned new refreshing trainings for 2012 as in the table 6.

**Table 5:** Trainings

<b>Number</b>	<b>Description of Training</b>	<b>Administered By</b>	<b>Attendee</b>	<b>Certificate</b>	<b>Date of Training</b>
1	Service wind turbine, K08 Beta, Basics, Turbine Electro technology wind turbine,	Nordex Academy	Hasan Söyer	Turbine Technology Certificate	20 June 2011 / 08 July 2011
2	Service wind turbine, K08 Beta, Basics, Turbine Electro technology wind turbine,	Nordex Academy	İbrahim Artan	Turbine Technology Certificate	20 June 2011 / 08 July 2011
3	Hytorc Training	Hytorc	Hasan Söyer	Hytorc Training certificate	10 March 2011
4	Hytorc Training	Hytorc	İbrahim Artan	Hytorc Training certificate	10 March 2011
5	First Aid Training	İzmir Governance, Province Health Directorate.	Hasan Söyer	First Aid Certificate	16-17 February 2011
5	First Aid Training	İzmir Governance, Province Health Directorate.	İbrahim Artan	First Aid Certificate	16-17 February 2011
6	Training on working at Height	Kaya Training	İsa Alkan	working at Height Certificate	25-26 March 2011
7	Training on Working at Plants with High Voltage	TMMOB	İsa Alkan	Working at Plants with High Voltage	03.05.2011
8	Training on working at Height	Kaya Training	Faruk Avkıran	working at Height Certificate	23-25 March 2011
9	Training on working at Height	Kaya Training	Hüseyin Vergili	working at Height	23-25 March 2011

				Certificate	
10	Training on working at Height	Kaya Training	Mehmet Zeki Yıldız	working at Height Certificate	23-25 March 2011
11	Training on working at Height	Kaya Training	Necmettin Arıcı	working at Height Certificate	23-25 March 2011

**Table 6:** Planned Trainings Through fifth Monitoring Period

<b>Training Plan for 2012</b>						
Companies	Personnel	Training Working at Height	First Aid Training	Training on Fires and Earthquakes	Training on Occupational Health and security	Training on Emergency case
		Planned in	Planned in	Planned in	Planned in	Planned in
INNORES ELK. ÜRT.A.Ş.	İsa ALKAN	March	May	June	September	April-November
	İbrahim ARTAN	March	May	June	September	April-November
	Hasan SOYER	March	May	June	September	April-November
GÜNGÖR ELK. A.Ş.	M.Zeki YILDIZ	-	May	June	September	April-November
	Necmettin ARICI	-	May	June	September	April-November
	Faruk AVKIRAN	-	May	June	September	April-November
	Hüseyin VERGİLİ	-	May	June	September	April-November
DARDANEL GÜV.A.Ş.	Abdullah ÖZER	-	May	June	September	April-November
	Ali KÖYCÜOĞLU	-	May	June	September	April-November
	Feridun ÇELİK	-	May	June	September	April-November
	Alaattin KANAT	-	May	June	September	April-November

## 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	Duration of the Contract	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	Salaried employee. Min. 1 year, rest is undefined.	Yes	Local
Plant Manager	Responsible for all kind of operational activities as well as maintenance and management.	1	Salaried employee. Min. 1 year, rest is undefined.	Yes	Local

	Reports to Izmir technical office and head office in Istanbul.				
Electric Technicians:	Work on alternating shifts. Apart from routine controls, intervene to electrical breakdowns.	6	1 year	Yes	5 of them is Local
Security Guards:	Work on alternating shifts, maintain security of plant.	4	1 year	Yes	Local

## F.2.2 Employment Created During Construction of the Capacity Extension of Yuntdağ 57.5 MW WPP.

**Table 8:** Employment during Construction

Employment and Description of the works	Number of Employee	Employment; Local
Civil works	29	NA
Electric installation	15	NA

## SECTION G. OPEN ISSUES FROM PREVIOUS VERIFICATION

**Forward Action Request 1:** *The DOE shall please ensure to interview stakeholders that might have been affected by the design change during the next periodic verification.*

A meeting with stakeholder was arranged for DOE during verification on site meeting to be able to interview with stakeholders. In this meeting stakeholders found chance to raise their thoughts about the project and construction for capacity extension during fourth monitoring period. It is viewed that local stakeholders are positive regarding activities of Innorens in that location.

**Forward Action Request 2:** *The Pre-EIA report recommends that the lighting facility has to be provided for night birds. The recommended action shall be ensured by the PP and DOE shall validate required action during the next verification.*

Although Pre-EIA recommends the lighting facility for the night birds, literally it is not recommended for the lightening facilities for the birds which is assumed to cause more bird strikes with turbines because of the lights. 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

the article is provide to DOE for verification.

**Forward Action Request 3:** *The request is still open. The PP is requested to provide more information on the refresher trainings as the information provided in the monitoring report only refers to the trainings attended by a single staff member.*

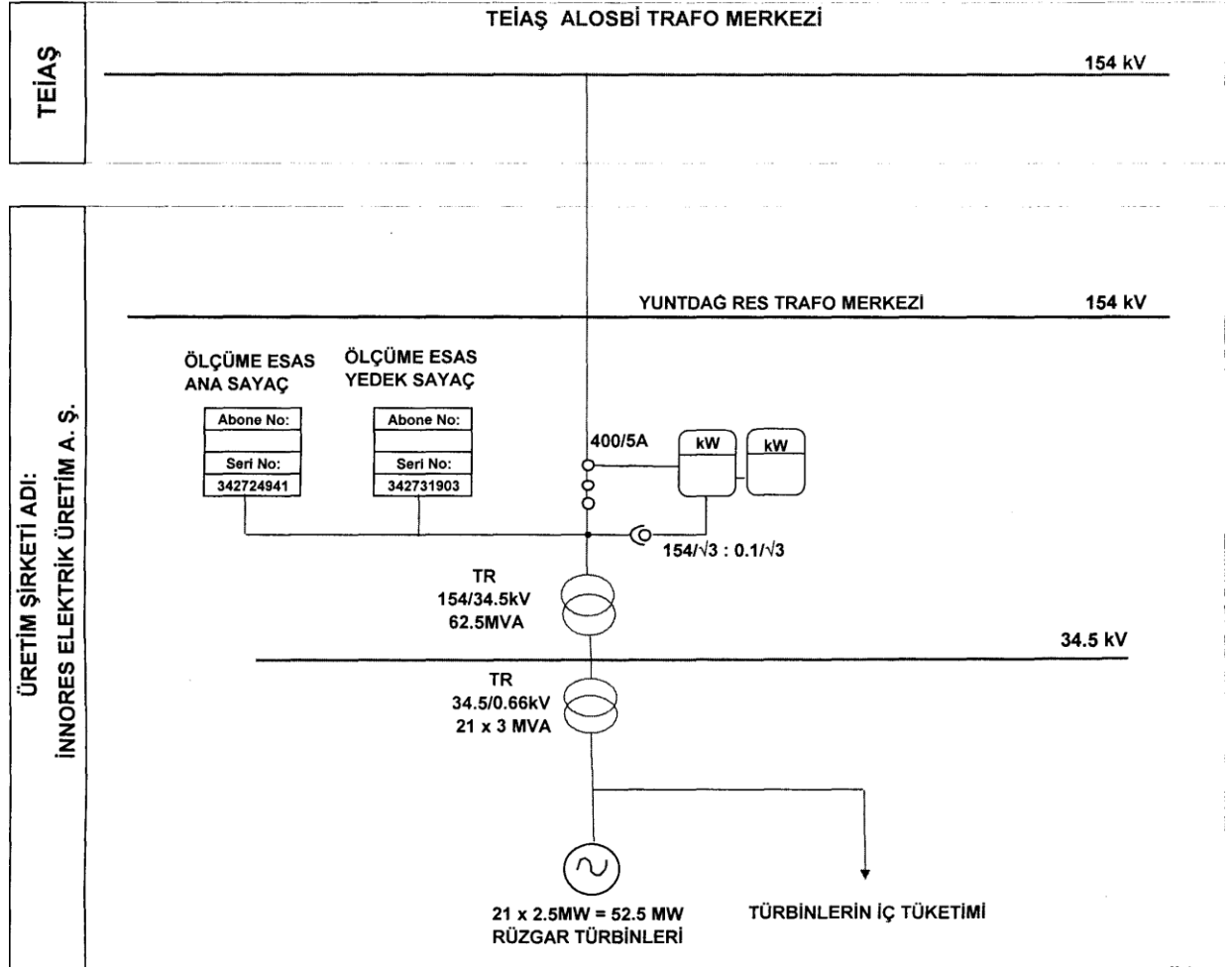
Refresher trainings are provided for technical staff as it can be seen from table 7.

***Forward Action Request 4:*** *The maintenance of the road will be done by the project owner if needed. The maintenance of the road shall be monitored during next verifications through the written letter gained from the Head of Village where the road has been constructed (Ismailli - Yuntdag)*

The maintenance is provided by project developer and there is no complains about the road from closest villages. Interviews are provided for DOE for further clarification.

## Annex 1: Single Line Diagram:

### İLETİM SİSTEMİNE YG GERİLİM SEVİYESİNDEN BAĞLI ÜRETİM TESİSLERİNİN SAYAÇLARININ BAĞLANTI NOKTALARINI GÖSTEREN TEK HAT ŞEMASI





## **Annex 2: Definitions and Acronyms**

ACM	: Approved Consolidated Methodology
CDM	: Clean Development Mechanism
DOE	: Designated Operational Entity
GS	: Gold Standard
PDD	: Project Design Document
TEİAŞ	: Turkish Electricity Transmission Company
ALOSBİ	: Administration of Aliağa Organized Industry Location
WPP	: Wind Power Project