



**Monitoring report form  
(Version 04.0)**

*Complete this form in accordance with the Attachment "Instructions for filling out the monitoring report form" at the end of this form.*

**MONITORING REPORT**

<b>Title of the project activity</b>	Balıkesir Susurluk 45 MW Wind Farm Project – Turkey
<b>Reference number of the project activity</b>	GS 854
<b>Version number of the monitoring report</b>	V4
<b>Completion date of the monitoring report</b>	27/10/2014
<b>Registration date of the project activity</b>	25/06/2012
<b>Monitoring period number and duration of this monitoring period</b>	1 <sup>st</sup> Monitoring period, 13/02/ 2011 – 31/05/2013
<b>Project participant(s)</b>	Susurluk Enerji A.Ş.
<b>Host Party(ies)</b>	TURKEY
<b>Sectoral scope and selected methodology(ies), and where applicable, applied standardized baseline(s)</b>	Sectoral scope 1, Energy Industries, and ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (version 12)
<b>Estimated amount of GHG emission reductions or net anthropogenic GHG removals by sinks for this monitoring period in the registered PDD</b>	159,609 tCO <sub>2</sub>
<b>Actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved in this monitoring period</b>	189,855 tCO <sub>2</sub>
<b>Actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved during the period up to 31 December 2012(if applicable)</b>	157,689 tCO <sub>2</sub>
<b>Actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved during the period from 1 January 2013 onwards (if applicable).</b>	32,166 tCO <sub>2</sub>

## SECTION A. Description of project activity

### A.1. Purpose and general description of project activity

The objective of the proposed Gold Standard VER project activity is to generate renewable electricity from wind energy and feed it into power grid, consequently displace the fossil sourced electricity with renewable one in Turkish national grid.

The Susurluk Wind Farm Project (hereafter referred to as the Project) were developed and operated by Susurluk Enerji AS, affiliate of İltek İletişim Teknolojileri AS. İltek İletişim is Affiliate Company of EKSİM Holding AS. [www.eksim.com.tr](http://www.eksim.com.tr)

The project was planned and acquired license to develop 45 MW onshore wind farm located in the Balıkesir province, Susurluk District in Turkey. According to first issue of the production license, 112,227 MWh/year of electricity generated by 60 pieces of 750 kW wind turbines would have been delivered to the Turkish national grid. However, the company applied to EMRA (EPDK) for a license alteration to change turbine sizes two times; at first time the turbines' sizes changed to 22 pieces 2 MW and 1 piece 1 MW and at the second time, turbine sizes changed to 18 pieces of 2.5 MW wind turbines. Although the installed capacity remains the same (45 MW), according to Geonet Umweltconsulting GmbH report, the annual electricity generation rises up to 121,939 MWh/year because of the high energy yield of 2.5 MW turbines comparing to 750 kW ones. As a summary, the project involves the installation of 18 turbines (18 x 2.5 MW) with 121,939 MWh electricity generation yearly and the development of a 29,326 m. transmission line between the proposed project area and the national grid.

Project Commissioning: 13/02/2011 (turbines 1,2,3,7,8)  
Commencement of full operations of the project: 20/05/ 2011

Total GHG emission reductions achieved in this monitoring period (13/02/2011 – 31/05/2013): 189,855 tCO<sub>2</sub>e.

### A.2. Location of project activity

The Susurluk Wind Farm Project is located in the city of Balıkesir in Western Turkey, near Ömerköy and Demirkapı Villages.

6 degree UTM Coordinates (ED50) of the turbines:

Turbine no	X	Y
T1	585396	4407734
T2	585581	4407620
T3	585776	4407618
T4	587012	4407398
T5	587414	4407261
T6	587596	4407171
T7	586043	4407017
T8	586271	4407013
T9	586479	4406949
T10	587602	4406225
T11	587786	4406150
T12	587929	4405990
T13	588389	4405776
T14	588687	4405753
T15	588897	4405675
T16	589212	4406158
T17	589419	4406105
T18	589632	4406106

**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)	Susurluk Enerji AS	No

**A.4. Reference of applied methodology and standardized baseline**

ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (version 12)

"Tool for the demonstration and assessment of additionality", Version 05.2

"Tool to calculate the emission factor for an electricity system", Version 02

**A.5. Crediting period of project activity**

7 year renewable (renewable twice); crediting period starting 13/02/2011 ending 12/02/2018 (renewable twice)

**A.6. Contact information of responsible persons/ entities**

<b>Project participant and/or responsible person/ entity</b>	<input checked="" type="checkbox"/> Project participant <input type="checkbox"/> Responsible person/ entity for completing the CDM-MR-FORM
<b>Organization name</b>	Susurluk Enerji A.Ş.
<b>Street/P.O. Box</b>	Fahrettin Kerim Gökay Cad. No: 34
<b>Building</b>	
<b>City</b>	Altunizade / İstanbul
<b>State/Region</b>	
<b>Postcode</b>	
<b>Country</b>	Turkey
<b>Telephone</b>	+90-216-544-2400
<b>Fax</b>	+90-216-544-2404+
<b>E-mail</b>	<a href="mailto:Info@eksim.com">Info@eksim.com</a>
<b>Website</b>	<a href="http://www.eksim.com">www.eksim.com</a>
<b>Contact person</b>	
<b>Title</b>	Carbon Projects Coordinator
<b>Salutation</b>	Mr.
<b>Last name</b>	Firtin
<b>Middle name</b>	
<b>First name</b>	Ebubekir
<b>Department</b>	Wind Energy
<b>Mobile</b>	+90 537 362 73 72
<b>Direct fax</b>	
<b>Direct tel.</b>	
<b>Personal e-mail</b>	<a href="mailto:ebubekir.firtin@ilteketisim.com">ebubekir.firtin@ilteketisim.com</a>

<b>Project participant and/or responsible person/ entity</b>	<input type="checkbox"/> Project participant x <input checked="" type="checkbox"/> Responsible person/ entity for completing the CDM-MR-FORM
<b>Organization name</b>	Gaia carbon finance
<b>Street/P.O. Box</b>	Halaskargazi cad. Zafer sok.
<b>Building</b>	Manuel apt. 11/4
<b>City</b>	Istanbul
<b>State/Region</b>	
<b>Postcode</b>	34371
<b>Country</b>	Turkey
<b>Telephone</b>	+90 212 2240450
<b>Fax</b>	+90 212 2240466
<b>E-mail</b>	
<b>Website</b>	<a href="http://www.gaiacf.com">Http://www.gaiacf.com</a>
<b>Contact person</b>	
<b>Title</b>	Managing partner
<b>Salutation</b>	Mr.
<b>Last name</b>	Bayraktar
<b>Middle name</b>	
<b>First name</b>	Gurkan
<b>Department</b>	
<b>Mobile</b>	
<b>Direct fax</b>	
<b>Direct tel.</b>	
<b>Personal e-mail</b>	<a href="mailto:Gbayraktar@gaiacf.com">Gbayraktar@gaiacf.com</a>

## SECTION B. Implementation of project activity

### B.1. Description of implemented registered project activity

(a) Description of the installed technology, technical processes and equipments;

The total installed capacity will be 45 MW with an establishment of a grid connection. The generated electricity will be delivered to the Turkish national grid. The project activity involves the installation of 18 turbines and the establishment of a 29,326 m. transmission line between the proposed project area and the national grid. The Project is expected to generate 121,939,000 kWh/year of electricity with transgression probability of 75 of the wind park.<sup>1</sup> 3 pieces Nordex N90 and 15 pieces Nordex N100 Wind Turbines were planned to be erected in Susurluk Wind Farm. Turbines were transported from Europe to the project site. However, the other components (blades, masts, cables etc.) were supplied from local manufacturers. This resulted in creating new job opportunities and also increased the local manufacturers' incomes.

The plant is connected to the grid through the 154 kVA Balikesir SEKA Transformer Centre via a 30 km power transmission line.

The line diagram is referred to in Section C.

(b) Information on the implementation and actual operation of the project activity:

Starting date of operation: The project was commissioned on 13/02/2011. This project consists of one site only and the implementation is phased. The date of commencements of full operations of the project: 20 /05/2011.

<sup>1</sup>According to Geonet Umweltconsulting GmbH report ( available to DOE), page 25.

Commissioning dates of turbines

Turbine No	Commissioning Date
1,2,3,7,8	13/02/2011
4,5,6,9	25/03/2011
13,14,15,16,18	22/03/2011
10,11,12,17	20/05/2011

Actual operation: No equipment of the turbines was changed during the monitoring period.

(c) Events affecting the applicability of the methodology

No events occurred that affected the applicability of the methodology

No breakdowns occurred in the monitoring period.

## **B.2. Post registration changes**

### **B.2.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline**

In the monitoring plan of the PDD, metering is described as *'Metering: The amount of electricity generated by the project and delivered to the national grid will be monitored continuously by two metering devices; Data obtained from measurements will be used in calculations of emission reductions. The losses before this point will be on the account of the project owner.'*

However, in the early times of the setup process of the turbines, February-May 2011, there were some faults in meter readings. For example, in March 2011, the official protocol of meter readings, which is the base for mutual agreement between the company and TEIAS was wrongly recorded from the metal clad meter instead of the 154 kV transformer meter. Therefore, in the monitoring period, PMUM readings instead of the meter readings have been taken as the base to calculate VERs. Meter readings have been used for cross-check. All readings have been presented to DOE.

### **B.2.2. Corrections**

N/A

### **B.2.3. Permanent changes from registered monitoring plan, applied methodology or applied standardized baseline**

N/A

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

No change to the project design took place in the monitoring period.

### **B.2.5. Changes to start date of crediting period**

N/A

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

N/A

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

The measurements will be performed by two measuring devices, which are the main (primary) measuring device and the backup (secondary) measuring device. The measuring frequency of both devices is continuous.

According to the first index protocol between Susurluk and TEIAS, detailed technical specification regarding primary measuring device is as follows;

Serial Nr: 00416275  
Brand: Elster  
Type: A 1500  
Production standard and class: 0,2 S Active, 2 Reactive  
Current: 5A  
Voltage: 3 x 57 /100 V.  
Constant value: 40000  
Number of phase and wire: 3 phase, 4 wires

The backup measuring device serial Nr is 00416274. Technical specification of the backup device is the same as that of the primary device.

In the monitoring plan of the PDD, metering is described as below.

The primary meter is used for the billing of the electricity and the amount of VERs generated.

Metering: The amount of electricity generated by the project and delivered to the national grid will be monitored continuously by two metering devices; Data obtained from measurements over the SCADA system of the turbines will be used in calculations of emission reductions. The losses before this point will be on the account of the project owner.

Meter readings: Every last day of the month, officials from TEIAS (Turkish Electricity Transmission Company) will perform data readings. An invoice (receipt of sale) will be prepared by TEIAS and delivered to Susurluk for each month.

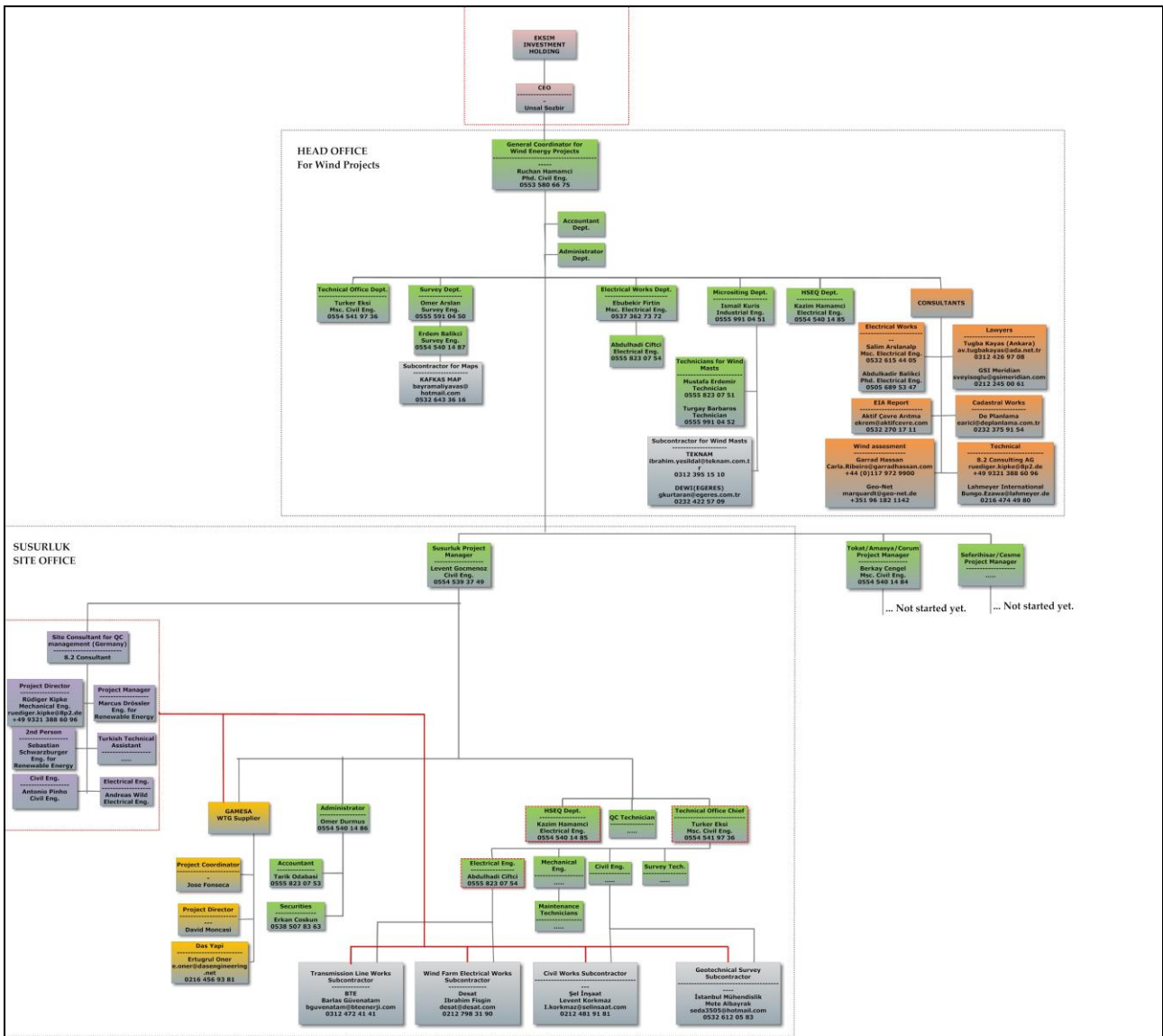
However as described in B2.1., PMUM readings instead of the meter readings have been taken as the base to calculate VERs in this monitoring period. Meter readings have been used for cross-check. All readings have been presented to DOE.

**Data aggregation:** The calculated net power exported per month is summed over the monitoring period. Calculation: see section D.2. and section E. Export and import per month is the difference between the successive monthly cumulative values on the revenue meter. Net power supplied to the grid is power export minus power import. Net power supplied to the grid x grid emission factor is emission reductions.

### **Organizational structure, roles and responsibilities**

Organizational structure is presented below.

### **The organizational chart**



## Emergency procedures for the monitoring system

In case the primary meter is out of order, the secondary meter will be used. And if the secondary meter also is out of use, then the readings are based on the meters on the side of TEİAŞ. If there is a breakdown in the electrical protection devices, the energy is cut off till the repair is made.

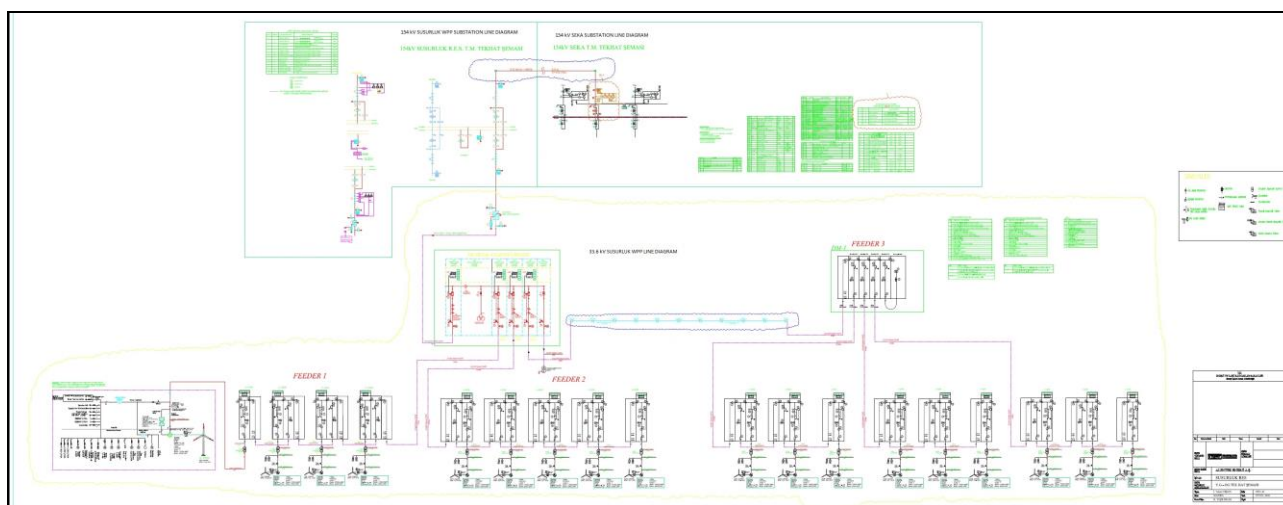
## Line diagram

Susurluk WEPP is connected to the TEİAŞ transformer center via an energy transmission line at 154kV, which is the national grid standard. The 33.6 kV level is used to connect the turbines to the transformer center of the plant as the distances among the turbines are large.

Presented in the line diagram, connection of 154 kV Susurluk WPP - Balıkesir SEKA energy transmission line was accepted by the decision #4164 of TEİAŞ dated 25/10/2010. The primer application project for 154 kV 1 line feeder to Balıkesir SEKA Substation was approved by the decision #3859-020390 of TEİAŞ dated 14/07/2010. The primer application projects were approved by the decision #3448-018382 of TEİAŞ dated 23/06/2010.

The 33.6 kV Susurluk WPP line works in the plant before it is transformed to 154 kV for connection to the SEKA transformer center. The 33.6 kV line was approved by the decision #3277-008578 of Ministry of Energy and Natural Resources dated 10/07/2010.

**Line Diagram**



**SECTION D. Data and parameters**

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

*(Copy this table for each piece of data and parameter.)*

<b>Data / Parameter:</b>	EF <sub>grid,CM,y</sub>
<b>Unit:</b>	tCO <sub>2</sub> /MWh
<b>Description:</b>	Combined Margin CO <sub>2</sub> emission factor for the grid
<b>Source of data:</b>	Section B.6 of registered PDD
<b>Value(s) applied:</b>	0.607
<b>Purpose of data:</b>	Baseline emission
<b>Additional comment:</b>	-

**D.2. Data and parameters monitored**

*(Copy this table for each piece of data and parameter.)*

<b>Data / Parameter:</b>	ID.8 / EG <sub>y</sub>
<b>Unit:</b>	MWh/year
<b>Description:</b>	Annual net electricity supplied by the Project to the grid

Measured/ Calculated / Default:	Measured			
Source of data:	PMUM (Market financial settlement center) records and two energy meters (primary and secondary) working parallel and installed in the main switchgear station for cross-checking			
Value(s) of monitored parameter:	312,777 MWh/year			
		<b>Electricity supply to the grid (MWh)</b>	<b>Electricity traction from the grid (MWh)</b>	<b>Annual net electricity supplied to the grid (MWh)</b>
	2011	114,845	123	114,722
	2012	145,225	162	145,063
	2013	53,072	80	52,992
	<b>TOTAL</b>	313,142	365	312,777
Monitoring equipment:	<p>The measurements will be performed by two measuring devices, which are the main (primary) measuring device and the backup (secondary) measuring device.</p> <p>According to the first index protocol between Susurluk and TEIAS<sup>2</sup>, detailed technical specification regarding primary measuring device is as follows;</p> <p>Serial Nr: 00416275  Brand: Elster  Type: A 1500  Production standard and class: 0,2 S Active, 2 Reactive  Current: 5A  Voltage: 3 x 57 /100 V.  Constant value: 40000  Number of phase and wire: 3 phase, 4 wires</p> <p>Factory Calibration date is 20/05/2010 performed by ELSTER. Maintenance and calibration of the metering devices will be made by TEIAS. No calibration by TEIAS has been made so far. The calibration will be made once in every ten years according to the directive on measuring and control of measuring devices<sup>3</sup></p> <p>Backup measuring device serial Nr is 00416274. Technical specification of the backup device is the same as that of the primary device.</p>			
Measuring/ Reading/ Recording/ frequency:	<p>Continuous measurement and monthly recordings.</p> <p>The quantity of net electricity delivered to the grid has been measured by PMUM records and the monthly meter reading records have been used for cross checking. The electricity meters are to be controlled and maintained by the grid owner, TEIAS.</p>			
Calculation method (if applicable):	The net electricity of the facility is the difference of the electricity exported to the grid and imported from the grid.			
QA/QC procedures:	Cross check measurement results with records for sold electricity			
Purpose of data:	Baseline emission			
Additional comment:	-			

<sup>2</sup> TEIAS First index report of measuring devices is available to DOE

<sup>3</sup> <http://www.mevzuat.gov.tr/Metin.Aspx?MevzuatKod=7.5.6381&sourceXmlSearch=&MevzuatIliski=0>

**CDM-MR-FORM**

According to the requirements of Gold Standard, the project activity must be assessed against a matrix of sustainable development indicators. The contribution of the proposed project activity to the sustainable development of the country is based on indicators of local/global environment sustainability, social sustainability & development and economic & technological development.

All documents regarding these additional parameters can be presented to the DOE during verification process :

<b>Data / Parameter:</b>	<b>Air Quality (SD Matrix Monitoring Plan, No1)</b>
Unit:	n.a.
Chosen Parameter 1.1	SO <sub>2</sub> emission avoided by the project activity
Chosen Parameter 1.2	NO <sub>X</sub> emission avoided by the project activity
Chosen Parameter 1.3	Dust emissions
Description:	The project caused dust emission only during the construction phase. It was calculated by the investor that the dust emission will be below legal limits <sup>4</sup> . All necessary precautions to ensure the air quality were taken by the investor. These precautions included, warning drivers about speed limits, sprinkling the circulation roads of trucks, covering the truckloads, loading and discharging of soil without swinging.
Measured/ Calculated / Default: For parameters 1.1 and 1.2	Calculated
Measured/ Calculated / Default: For parameter 1.3	n.a
Source of data: For parameters 1.1 and 1.2	UNFCCC National Inventory of TURKEY 2014 <sup>5</sup> (contains the 2012 data) Total annual electricity generation of Turkey 2012-TEIAS <sup>6</sup>
Source of data: For parameters 1.3	n.a.
Value(s) of monitored parameter 1.1:	219.3 t SO <sub>2</sub>
Value(s) of monitored parameter 1.2:	423.5 t NO <sub>X</sub>
Value(s) of monitored parameter 1.3:	There was no dust emissions related to construction in the monitoring period as the construction had already been finished. Therefore compliance with local regulations and rules (Protection of Air Quality Regulation, Regulation on Controlling Air Pollution arising from Industrial Plants and Regulation on Control of Excavation, Construction and Wreckage Wastes) was met.
Monitoring equipment:	n.a.
Measuring/ Reading/ Recording frequency:	Yearly

<sup>4</sup> Project Identification File (PIF) prepared by Mimko, dated January 2009, page 15

<sup>5</sup> [https://unfccc.int/files/national\\_reports/annex\\_i\\_ghg\\_inventories/national\\_inventories\\_submissions/applications/zip/tur-2014-crf-15apr.zip](https://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/applications/zip/tur-2014-crf-15apr.zip)


<sup>6</sup> [http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/uretim%20tuketim\(23-47\)/24.xls](http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/uretim%20tuketim(23-47)/24.xls)

**CDM-MR-FORM**

Calculation method (if applicable) parameter 1.1:	<p>Total annual electricity generation is 239,496.8 GWh in 2012, while total SO2 emission related to electricity generation is 167.89 Gg for 2012 according to National Inventory of Turkey.</p> <p>SO2 emission per GWh is calculated as 0.701 t/GWh.</p> <p>The project activity is expected to avoid SO2 emission by multiplying project annual electricity generation by the latest data available of SO2 emission on National Inventory of Turkey.</p> <p>Avoided SO2 emission; 312.777 GWh x 0.701 t/GWh = 219.3 t SO2</p>
Calculation method (if applicable) parameter 1.2:	<p>Total annual electricity generation is 239,496.8 GWh in 2012, while total NOX emission related to electricity generation is 324.3 Gg for 2012 according to National Inventory of Turkey.</p> <p>NOX emission per GWh is calculated as 1.354 t/GWh.</p> <p>The project activity is expected to avoid NOX emissions by multiplying project annual electricity generation by the latest data available of NOX emission on National Inventory of Turkey.</p> <p>Avoided NOX emission; 312.777 GWh x 1.354 t/GWh = 423.5 t NOX</p>
Calculation method (if applicable) For parameter 1.3	n.a
QA/QC procedures:	n.a.
Purpose of data:	Sustainability monitoring parameters
Additional comment:	The parameter will be monitored by Local people

<b>Data / Parameter:</b>	<b>Quality of employment (SD Matrix Monitoring Plan, No3)</b>
Unit:	n.a.
Chosen Parameter:	Certificates and safety equipment distributed
Description:	The project owner trained all employees on construction and operation of the plant. The project proponent aims for improvement of safety for labour providers.
Measured/ Calculated / Default:	n.a.
Source of data:	The number of trainings and attendance of employees will be monitored by documents <sup>7</sup> .

<sup>7</sup> The training records of the job vocational for operators and health and safety trainings for all workers were provided to the DOE.

<p>Value(s) of monitored parameter:</p>	<p>All training and attendance certificates are available to the DOE. For example, one employee's certificate health and safety training is presented below.</p>  <p>12 people attended work health and security training. In addition one electrical technician took trainings on theoretical, practical safety, safe driving, first aid, lock out - tag out, transformer center administration technician basic training. And one electrical-electronics engineer took trainings on OHSAS 18001 management system, electrical grounding, management responsibility in high-voltage plants, project cycle management in addition to the trainings mentioned above.</p>
<p>Monitoring equipment:</p>	<p>n.a.</p>
<p>Measuring/ Reading/ Recording frequency:</p>	<p>Annually</p>
<p>Calculation method (if applicable):</p>	<p>n.a.</p>
<p>QA/QC procedures:</p>	<p>n.a.</p>
<p>Purpose of data:</p>	<p>Sustainability monitoring parameters</p>
<p>Additional comment:</p>	<p>n.a.</p>

<p><b>Data / Parameter:</b></p>	<p><b>Quantitative Employment and Income Generation (SD Matrix Monitoring Plan, No4)</b></p>
<p>Unit:</p>	<p>n.a.</p>
<p>Chosen Parameter</p>	<p>Household income generated from the project</p>
<p>Description:</p>	<p>The project owner is committed to prioritize local labour force. As a result, the employment rate and income generation in the region will increase</p>
<p>Measured/ Calculated / Default:</p>	<p>n.a.</p>
<p>Source of data:</p>	<p>SGK (Social Security Institution) Records of the company</p>
<p>Value(s) of monitored parameter:</p>	<p>SGK records showing the identity and employment records of the employees are available to the DOE. 13 people were employed and one of them left in the monitoring period. 5 security personnel worked as subcontractors. 8 operational and 5 security personnel were hired locally.</p>

Monitoring equipment:	n.a.
Measuring/ Reading/ Recording frequency:	Continuously
Calculation method (if applicable):	n.a.
QA/QC procedures:	n.a.
Purpose of data:	Sustainability monitoring parameters
Additional comment:	-

<b>Data / Parameter:</b>	<b>Balance of payments and investment (SD Matrix Monitoring Plan, No5)</b>																
Unit:	USD/year																
Chosen Parameter	Produced clean energy results reducing the amount of imported fossil fuel as in Baseline status.																
Description:	<p>Baseline is how much Turkey spends for importing fuels (coal, natural gas, petrol, etc.) for electricity generation in a yearly basis. That is the amount of produced energy in place of imported fossil fuel sources as in baseline. Energy imports will decline resulting in net currency savings. Amount of clean energy produced will be monitored at each verification round.</p> <p>According to study of IEA<sup>8</sup>, the projected costs of Natural gas fired plants is an average of 98 USD/MWh (in OECD countries) in which 67% represents only fuel costs.</p>																
Measured/ Calculated / Default:	Calculated																
Source of data:	The annual electricity generation of the plant through monitoring by the latest available data for the average projected cost of Natural gas fired plants in OECD countries according to IEA.																
Value(s) of monitored parameter:	<p>The project had been expected to reduce 121,939 MWh x 98 USD/MWh x 0.67 =8.01 mio USD worth natural gas import, annually.</p> <p>Over the realized electricity production values in the monitoring period, the savings on natural gas imports are:</p> <table border="1"> <thead> <tr> <th></th> <th>MWH</th> <th>USD</th> </tr> </thead> <tbody> <tr> <td>2011</td> <td>114,722</td> <td>7,532,620</td> </tr> <tr> <td>2012</td> <td>145,063</td> <td>9,524,855</td> </tr> <tr> <td>2013</td> <td>52,992</td> <td>3,479,465</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>312,777</b></td> <td><b>20,536,940</b></td> </tr> </tbody> </table>			MWH	USD	2011	114,722	7,532,620	2012	145,063	9,524,855	2013	52,992	3,479,465	<b>TOTAL</b>	<b>312,777</b>	<b>20,536,940</b>
	MWH	USD															
2011	114,722	7,532,620															
2012	145,063	9,524,855															
2013	52,992	3,479,465															
<b>TOTAL</b>	<b>312,777</b>	<b>20,536,940</b>															
Monitoring equipment:	The measurements of annual electricity production delivered to the grid will be performed by two measuring devices, which are the main (primary) measuring device and the backup (secondary) measuring device <sup>9</sup>																
Measuring/ Reading/ Recording frequency:	Measuring Annually																
Calculation method (if applicable):	Calculated by multiplying the annual electricity generation of the plant through monitoring by the latest available data for the average projected cost of Natural gas fired plants in OECD countries according to EIA.																

<sup>8</sup> <http://www.iea.org/textbase/npsum/eleccost2010SUM.pdf>

<sup>9</sup> Please refer to Data and parameter **ID.8 / EG<sub>y</sub>**

QA/QC procedures:	Cross check measurement results with records for sold electricity
Purpose of data:	Used to find savings from natural gas imports
Additional comment:	-

The collected data during the monitoring period will be kept by the project owner at least two years after the last issuance of VERs as stated in the registered PDD in line with the ACM0002.

### D.3. Implementation of sampling plan

>> N/A

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

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

>>

Calculation of baseline emissions	Symbol	Amount	Unit
Electricity supplied to the grid <sup>1</sup>	EG <sub>y</sub>	312,777	MWh
Baseline emission factor <sup>2</sup>	EF <sub>grid,CM,y</sub>	0.607	tCO <sub>2</sub> e/MWh
Baseline emissions <sup>3</sup>	BE <sub>y</sub>	189,855	tCO <sub>2</sub> e

<sup>1</sup>Net electricity supplied = EG<sub>y</sub> = power export via revenue meter– power import via revenue meter

<sup>2</sup>EF<sub>grid,CM,y</sub> fixed for crediting period

<sup>3</sup>BE<sub>y</sub>=EG<sub>y</sub>\*EF<sub>grid,CM</sub>,

### E.2. Calculation of project emissions or actual net GHG removals by sinks

>> As per methodology and PDD;

Calculation of project emissions	Symbol	Amount	Unit
Total project emissions	PE <sub>y</sub>	0	tCO <sub>2</sub> e

### E.3. Calculation of leakage

>> As per methodology and PDD;

Calculation of leakage emissions	Symbol	Amount	Unit
Total project emissions	Ly	0	tCO <sub>2</sub> e

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

Item	Baseline emissions or baseline net GHG removals by sinks (t CO <sub>2</sub> e)	Project emissions or actual net GHG removals by sinks (t CO <sub>2</sub> e)	Leakage (t CO <sub>2</sub> e)	Emission reductions or net anthropogenic GHG removals by sinks (t CO <sub>2</sub> e)
<b>Total</b>	189,855	0	0	189,855

**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 (t CO <sub>2</sub> e)	159,609	189,855

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

In the monitoring period the wind power proved to be 16% greater than the estimated degree, which was after all just an average value over the years to form a basis to forecast electricity production in the PDD.

Estimated emission reduction (t CO <sub>2</sub> e)	Actual emission reduction (t CO <sub>2</sub> e)	% difference
159,609	189,855	16%=(189,855-159,609)/159,609

**E.7. Actual emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards**

Item	Actual values achieved up to 31 December 2012	Actual values achieved from 1 January 2013 onwards
Emission reductions or GHG removals by sinks (t CO <sub>2</sub> e)	157,689	32,166

-----

## Appendix 1. Contact information of project participants and responsible persons/ entities

<b>Project participant and/or responsible person/ entity</b>	<input checked="" type="checkbox"/> Project participant <input type="checkbox"/> Responsible person/ entity for completing the CDM-MR-FORM
<b>Organization name</b>	Susurluk Enerji A.Ş.
<b>Street/P.O. Box</b>	Fahrettin Kerim Gökay Cad. No: 34
<b>Building</b>	
<b>City</b>	Altunizade / İstanbul
<b>State/Region</b>	
<b>Postcode</b>	
<b>Country</b>	Turkey
<b>Telephone</b>	+90-216-544-2400
<b>Fax</b>	+90-216-544-2404+
<b>E-mail</b>	<a href="mailto:Info@eksim.com">Info@eksim.com</a>
<b>Website</b>	<a href="http://www.eksim.com">www.eksim.com</a>
<b>Contact person</b>	
<b>Title</b>	Carbon Projects Coordinator
<b>Salutation</b>	Mr.
<b>Last name</b>	Fırtın
<b>Middle name</b>	
<b>First name</b>	Ebubekir
<b>Department</b>	Wind Energy
<b>Mobile</b>	+90 537 362 73 72
<b>Direct fax</b>	
<b>Direct tel.</b>	
<b>Personal e-mail</b>	<a href="mailto:ebubekir.firtin@iltekiletisim.com">ebubekir.firtin@iltekiletisim.com</a>

<b>Project participant and/or responsible person/ entity</b>	<input type="checkbox"/> Project participant <input checked="" type="checkbox"/> Responsible person/ entity for completing the CDM-MR-FORM
<b>Organization name</b>	Gaia carbon finance
<b>Street/P.O. Box</b>	Halaskargazi cad. Zafer sok.
<b>Building</b>	Manuel apt. 11/4
<b>City</b>	Istanbul
<b>State/Region</b>	
<b>Postcode</b>	34371
<b>Country</b>	Turkey
<b>Telephone</b>	+90 212 2240450
<b>Fax</b>	+90 212 2240466
<b>E-mail</b>	
<b>Website</b>	<a href="http://www.gaiacf.com">Http://www.gaiacf.com</a>
<b>Contact person</b>	
<b>Title</b>	Managing partner
<b>Salutation</b>	Mr.
<b>Last name</b>	Bayraktar

**CDM-MR-FORM**

<b>Middle name</b>	
<b>First name</b>	Gurkan
<b>Department</b>	
<b>Mobile</b>	
<b>Direct fax</b>	
<b>Direct tel.</b>	
<b>Personal e-mail</b>	<a href="mailto:Gbayraktar@gaiaf.com">Gbayraktar@gaiaf.com</a>

