VERIFICATION REPORT

ALIAĞA WIND FARM IN TURKEY

(GOLD STANDARD PROJECT ID: GS735)

Monitoring Period:
1 July 2012 to 31 December 2012

REPORT NO. 2013-0092

REVISION NO. 01

DET NORSKE VERITAS

VERIFICATION REPORT

Date of first issue: 2013-02-14	Project No.: PRJC-431127-2012-CCS-NOR
Approved by: Michael Lehmann	Organisational unit: DNV KEMA Energy & Sustainability Accredited Climate Change a Services
Client: EcoSecurities International Limited	Client ref.: Rohit Lohia

DNV CLIMATE CHANGE SERVICES AS

Veritasveien 1,
1322 HØVIK, Norway
Tel: +47 67 57 99 00
Fax: +47 67 57 99 11
http://www.dnv.com
Org. No: NO 994 774 352 MVA

Summary:

DNV Climate Change Services AS (DNV) has performed the verification of the emission reductions reported for the Aliağa Wind Farm (Gold Standard Project ID: GS735) for the period 1 July 2012 to 31 December 2012.

In our opinion, the GHG emission reductions reported for the project in the monitoring report (Version 02) of 31 January 2013 are fairly stated.

The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology ACM0002 (version 12) and the monitoring plan contained in the Project Design Document of 17 November 2011.

DNV Climate Change Services AS is able to verify that the emission reductions from the Aliağa Wind Farm in Turkey during the period of 1 July 2012 to 31 December 2012 amount to 97 895 tonnes of CO_2 equivalent.

Report No.: 2013-0092			**Indexing terms**
Report title: Aliağa Wind Farm in Turkey			Key words Climate Change Kyoto Protocol Validation Clean Development Mechanism
			Service Area Verification
			Market Sector Process Industry
Work carried out by: Patrice Massicard, Giovanni Tenderini, Ole Andreas Flagstad			☒ No distribution without permission from the client or responsible organisational unit ☐ free distribution within DNV after 3 years ☐ Strictly confidential ☐ Unrestricted distribution
Work verified by: Andrés Espejo			
Date of this revision: 2013-02-14	Rev. No.: 01	Number of pages: 24	

Table of Content *Page*

Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction(s)
CL	Clarification request
CO_2	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
DNV	Det Norske Veritas
DOE	Designated Operational Entity
EMRA	Energy Market Regulatory Authority
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GS	Gold Standard
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
PDD	Project Design Document
MFRC/PMUM	Market Financial Reconciliation Center
TEİAŞ	Turkish Electricity Transmission Company
UNFCCC	United Nations Framework Convention on Climate Change
WEPP	Wind Energy Power Plant

1 INTRODUCTION

EcoSecurities International Limited has commissioned DNV Climate Change Services AS (DNV) to carry out the verification of emission reductions reported for the Gold Standard project Aliağa Wind Farm in Turkey (the proposed project) for the period 1 July 2012 to 31 December 2012. This report contains the findings from the verification and a verification statement for the verified emission reductions.

The project was registered as a Gold Standard (GS) project activity (Project ID: GS735) on 3 April 2012. As per the PDD section C.2.1.1 /1/ the start of the crediting period is 1 April 2010 and the start of the project activity is 9 April 2010 /2/. This verification has emission reductions occurring from 1 July 2012 to 31 December 2012.

1.1 Objective

Verification is the periodic independent review and *ex post* determination by a Designated Operational Entity (DOE) of the monitored reductions in GHG emissions that have occurred as a result of the registered GS project activity during a defined monitoring period.

The objective of this verification was to verify emission reductions reported for the Aliağa Wind Farm in Turkey for the period 1 July 2012 to 31 December 2012 along with the GS indicators for sustainability criteria.

1.2 Scope

The scope of the verification is:

- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

The verification shall ensure that reported emission reductions are complete and accurate in order to be certified by the Gold Standard.

1.3 Description of the project activity

Title of project activity:	*Aliağa Wind Farm*
Baseline and monitoring methodology	*ACM0002 (version 12)*
Project Participants:	*Bergama RES Enerji Üretim A.Ş* *JPMorgan Ventures Energy Corporation*
Location of the project activity:	*Aliağa Town, Province of İzmir, Turkey*
Project's crediting period:	*1 April 2010 to 31 March 2017*
Period verified in this verification:	*1 July 2012 to 31 December 2012*

1.4 Methodology for determining emission reductions

In line with the applied methodology ACM0002 version 12 /59/, the emission reductions are determined as the difference between baseline emissions, project emissions and leakage:

$ER_y = BE_y - PE_y - L_y$.

PE_y and L_y are considered to be zero as stated in the registered GS PDD and GS validation report (thereafter referred to as PDD and validation report) and as per the methodology /1//5//59/. Therefore, the emission reductions are accounted as:

$ER_y = BE_y = EG_{facility,y} \times EF_{grid,CM,y.}$

$EF_{grid,CM,y}$ is the emission factor of the grid (tCO_2/MWh), which has been fixed *ex-ante* for the entire first crediting period at 0.59384 tCO_2/MWh, as per the registered PDD and the validation report /1//5/.

$EG_{facility,y}$ is the net electricity generation supplied to the grid, which is determined by the electricity output to the grid minus the electricity imported from the grid /1//2/.

2 METHODOLOGY

The verification of the emission reductions has assessed all factors and issues that constitute the basis for emission reductions from the project. These include:

i) Review of project documentation /1//2//3//4//5//6//7/

ii) The net electricity supplied by the project to the grid which is multiplied by a fixed grid baseline combined emission factor of 0.59384 tCO_2/MWh /1/;

iii) The actual installed capacity of the power plant to ensure the conformance with the descriptions in the registered PDD /1/;

The verification of the emission reductions has assessed all factors and issues that constitute the basis for emission reductions from the project. DNV has for this assignment checked all factors and issues with the same emphasis. Despite this, DNV has during its preparations identified the key reporting risks and used the assessment to determine to which extent the project operator's control systems were adequate for mitigation of these key reporting risks. In addition, other areas that can have an impact on reported emission reductions have also undergone a detailed audit testing.

Verification team

Role	***Last Name***	***First Name***	***Country***	***Type of involvement***					
				Desk review	Site visit	Reporting	Supervision of work	Technical review	TA 1.2 competence
Team leader (Verifier) with local knowledge of Turkey	Massicard	Patrice	Norway	✓	✓	✓	✓		
Expert	Tenderini	Giovanni	Italy	✓	✓	✓			✓
Assessor Under Training (observer)	Flagstad	Ole Andreas	Norway	✓	✓				
Technical reviewer	Espejo	Andrés	Italy					✓	✓

Duration of verification

Preparations: *From 8 January 2013 to 14 January 2013*

On-site verification: *16 January 2013*

Reporting, calculation checks and QA/QC*: From 21 January 2013 to 14 February 2013*

2.1 Review of documentation

The verification has been performed based on the review of the following documentation provided by the project participants:

- The monitoring report of the monitoring period from 1 July 2012 to 31 December 2012, version 02 dated 31 January 2012 /2/
- The registered PDD, including the monitoring plan and the corresponding validation report /1//5/
- The emission reduction calculations provided in the form of a spreadsheet submitted by EcoSecurities International Limited /3/
- Data generated from the Market Financial Reconciliation Center (MFRC/PMUM) from 1 July 2012 to 31 December 2012 for the proposed project /7/
- An evaluation of data management, the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions /1//2//5//6//7//8//13//15//16/
- Baseline and monitoring methodology ACM0002 version 12 applied by the project /59/
- Gold Standard Sustainable Indicators of the proposed project during this monitoring period from 1 July 2012 to 31 December 2012 /18/ /20//21//22//23//24//25//27/ /28/ /29//30//31//32//33//34//35//36//37//38//39//40//41//42//44/ /45//46//47/.

- Other information and references relevant to the project activity's resulting emission reductions /58//60//61//62//63//64/.

2.2 Site visit

DNV's verification team performed an on-site visit for the Aliağa Wind Farm project in Aliağa Town, Izmir, Turkey on 16 January 2013. The key personnel of the project were interviewed or assisted the verification team /65//66//67//68//69//70/.

During this site visit, DNV applied standard auditing techniques to assess the quality of information provided. The following aspects of the GS project activity have been verified:

- The implementation and operation of the GS project activity as per the registered PDD /1/;
- The information flow for generating, aggregating and reporting of the monitoring parameters /1//2//5/; and
- The operational and data collection procedures are implemented in accordance with the monitoring plan in the PDD /1/.

Further, the following activities were performed:

- A cross-check between information provided in the monitoring report and data from other sources /1//3//4//5//6//7//8/
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD and the selected methodology /1//2//13//15//16//59/;
- A review of calculations and assumptions made in determining the GHG data and emission reductions /3//7/
- An identification that quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters /8//27//28//29//38//39/; and
- Gold Standard Sustainable Indicators of the proposed project during this monitoring period /18//20//21//22//23//24//25//27//28//29//30//31//32//33//34//35//36//37//38/ /38//39//40//41//42//44/ /45//46//47/

The data presented in the monitoring report was assessed by review of the detailed project documentation and production records, as well as by interviews with personnel at project site, and observation of collection of measurements, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. This has enabled the verification team to assess the accuracy and completeness of reported monitoring results; to verify the correct application of the approved monitoring methodology and the determination of the emission reductions. It can be confirmed through the site visit that quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

In addition, all parameters required by the monitoring methodology ACM0002 version 12 and the management system were assessed during the site visit /59/.

2.3 Reporting of findings

A corrective action request (CAR) is issued, where:

i. Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
ii. Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
iii. Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

A clarification request (CL) shall be raised if information is insufficient or not clear enough to determine whether the applicable requirements have been met.

A forward action request (FAR) is issued for actions if the monitoring and reporting require attention and/or adjustment for the next monitoring period.

The verification identified one CAR and four CLs. The CAR and CLs raised as well as how the project participants have adequately addressed the CAR and CLs are described in Appendix A of this report. No FAR was raised at this monitoring period.

3 VERIFICATION FINDINGS

This section summarises the findings from the verification of the emission reductions reported for the Aliağa Wind Farm in Turkey for the period 1 July 2012 to 31 December 2012.

3.1 Remaining issues, CARs, FARs from previous validation / verification

There is no FAR from previous verification/validation.

3.2 Project implementation

As part of the site visit, DNV confirms that the project implementation is in accordance with the project description contained in registered PDD of 17 November 2011, and that the GS project started operation since 9 April 2010 /1//2/.

The project is located in Aliağa, İzmir, Turkey. It has been clarified that the final coordinates of the turbines, as shown in the monitoring report, were revised compared to the planned coordinates presented in the PDD. The actual coordinates were confirmed by the generation license of the project /12/. By comparing the initial and final layout, DNV can confirm the turbines are located in the same area than forecasted in the PDD. The change was made in order to optimise the performance of the turbines and for not interacting with other nearby wind farms (ref. CL1). It was stated in the PDD /1/ that the wind farm is not within bird migration route, and the closest bird migration route is at about 50km. The area covered by final turbine layout is similar in size to the initial layout but shifted by 1 to 2 kilometres towards the North-East direction. The change of layout is therefore negligible compared to the distance to the bird migration routes. Furthermore, the possible impact of the project activity in birds is being monitored (c.f. Section 3.7 below); as confirmed by DNV it has not been identified so far any impact on bird population.

As verified by DNV during the site visit, through visual inspection of the project site and control room, the actual installed capacity of the project activity (36*2.5 MW) is consistent with the capacity stated in the registered PDD of 17 November 2011 /1/.

The monitoring procedures of electricity supplied to the grid were verified during the site visit and considered adequate. As specified in the registered PDD, two main meters have been installed to measure the electricity generation by the proposed project (one meter for turbine no 1-18, and the second meter for turbine no 19-36), with the manufacturer/model of the meters as Actaris SL7000 /1/. The two main meters are bi-directional with 0.2 accuracy class and the serial numbers are 53031823 and 53031826 as verified by DNV through visual inspection of the meters during the site visit. The accuracy of the meters and the serial numbers are not specified in the registered PDD /1/. DNV confirms that the accuracy represents the current good practice in Turkey.

Backup meters are also mentioned in the registered PDD /1/ yet the number of the backup meters is not specified. DNV confirmed through the site visit that there are two backup meters installed for the proposed project with serial number as of 53031824 and 53031825 as verified by DNV through visual inspection of the meters during the site visit. These two meters are bi-directional with 0.2 accuracy class, which represents good monitoring practice in Turkey.

Electricity meters' maintenance and calibration is undertaken by TEİAŞ who ensures the accuracy and measurement quality /1//2/. Both main and back-up meters are sealed and locked in the main control room at the project site to guarantee the integrity of the

instruments. The installation and operation of the monitoring meters were consistent with the registered PDD of 17 November 2011 /1/. The control system at the wind power plant is automated and assures continuous operation according the availability of wind resource.

On-site training for operating and maintaining the equipment was provided by the equipment supplier, e.g. the service basic and turbine technology training carried out by Nordex Academy, Concycle Wind Training carried out by Nordex Energy GmbH, theoretical and practical safety instruction training carried out by Triowind, technique of high voltage training carried out by Yasar Univerisy, safety training carried out by Bureau Veritas and A. Serdar Anlas, etc. /27//28//29//30//31//32//33//34//35/. Employees of the proposed project participated in different trainings to fulfil the request of their work, and DNV confirms that the training certificates have been provided during the site visit. DNV was able to confirm that this training certificates and procedure implementation were appropriate by checking the training record /17/ and interviewing the key personnel of the plant /65//66//67//68//69//70/.

Malfunctioning of equipment has been monitored and no report of malfunctioning was issued for this monitoring period.

3.3 Information (data and variables) provided in the monitoring report that is different from that stated in the registered PDD

The estimated annual gross electricity generation in the registered PDD is 294 900 MWh, which correspond to 148 662 MWh for a period equivalent to this monitoring period (from 1 July 2012 to 31 December 2012) i.e. 184 days /1//2/. The total actual measured gross electricity generation of the proposed project is 164 851 MWh for this monitoring period.

The actual electricity generation measured for this monitoring period is 11% higher than the value estimated in the registered PDD /1//2//3/. As per the PDD the estimated total emission reductions for this monitoring period are 88 281 tCO_2, while the actual emission reductions achieved during this monitoring period are 97 895 tCO_2, which is also 11 % higher than the estimation in the PDD /1//2//3/.

These differences are due to seasonal variations since the monitoring period cover only 6 months. For the whole year 2012 (previous and current monitoring period), the total electricity generation was 126 512+ 164 851 = 291 363 MWh, and total emissions reductions were 75 127+97 895=173 022 tCO_2, which is approximately as stated in the PDD and only 1% less than the estimates in the PDD. Thus there is no increase in the ERs from that estimated in the PDD.

3.4 Compliance of monitoring plan with monitoring methodology

DNV is able to confirm that the monitoring plan contained in the registered PDD of 17 November 2011 is in accordance with the approved methodology applied by the project activity, i.e. ACM0002 (version 12) /1//59/.

3.5 Compliance of monitoring with the monitoring plan

The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD of 17 November 2011 /1/.

All parameters stated in the validated monitoring plan are monitored and reported appropriately. The monitoring report lists each parameter required by the registered monitoring plan and the information flow (i.e. from data generation, aggregation, to

recording, calculation and reporting) for these parameters is provided in the monitoring report /1//2/. The information flow for the each parameter is further verified in the following sections.

3.5.1 Monitoring parameters

According to the monitoring plan of registered PDD of 17 November 2011, there is only one parameter to be monitored, which is $EG_{facility,y}$, the net electricity supplied to the grid by the proposed project /1/.

The table 1 below relates to the parameters in the monitoring plan / methodology:

	Assessment/ Observation
Data / Parameter: (as in monitoring plan of PDD):	Net electricity supplied to the grid by the proposed project
Measuring frequency:	continuously
Reporting frequency:	Record and report monthly
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes It has been specified in the monitoring plan that the electricity will be read and recorded monthly /1/, and this has been implemented during this monitoring period. In the monitoring report for this monitoring period /2/, the data was measured continuously and reported monthly, which in DNVs opinion satisfies the requirements of the methodology and PDD /1//59/. The meters are read electronically and remotely by TEIAS on a monthly basis and the readings are then co-signed by the project owner and TEIAS at a slightly later date. This is still in line with the Monitoring Plan in the PDD.
Type of monitoring equipment:	Electricity meters Actaris SL7000 • Main meter #1 with serial number 53031823 (used for ER calculation) • Main meter #2 with serial number 53031826 (used for ER calculation) • Backup meter #1 with serial number 53031824 (not used for ER calculation) • Backup meter #2 with serial number 53031825 (not used for ER calculation) It is stated in the registered PDD that there are two electricity meters /1/. In the Annex 4 monitoring plan of the registered PDD, however, it also mentions that there are main meters and auxiliary meters, although the number of the backup meters is not specified /1/. DNV confirms via the site visit

	that there are two main meters and two backup meters for the proposed project, and both main meters and backup meters are bi-directional, i.e. measuring both imported and exported electricity to the grid. Both main meters and backup meters have a 0.2 accuracy class, which represents the good practice in Turkey. Only data generated from the main meters is used for the ER calculation, and no data from the backup meters is used /3/. The data is crosschecked with the data generated by the MFRC/PMUM system /7/ DNV considers that the set-up of the meters accurately measures the electricity generated by the proposed project.
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	No meter accuracy is defined in the registered PDD /1/. DNV checked during the site visit through a visual inspection that the electricity meters have an accuracy class of 0.2, which represents good monitoring practice in Turkey.
Calibration frequency /interval:	Every 10 years
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	Yes. The calibration interval is in line with the monitoring plan of the PDD /1/. In the registered PDD dated 17 November 2011, it states that in accordance with the Inspection of Measurement and Measuring Instruments Regulation published in Turkish Official Gazette, the inspection of meters needs to be done in every 10 years /1//15/. DNV checked the document and could confirm the same.
Company performing the calibration:	Both the main meters (serial number 53031823 and 53031826) and the backup meters (serial number 53031824 and 53031825) were calibrated when they were installed in year 2010 and corresponding calibration certificates were issued by Kesir Engineering and certified by Buro Veritas on 2 February 2010 /13/. Electricity meters' maintenance and calibration is undertaken by the grid operator TEİAŞ who ensure the measurement quality. According to regulation published in the Official Gazette No: 27200 on 14 April 2009 by the Energy Market Regulatory Authority (which is the only government body who makes regulations in the Turkish energy market), pg 14 Article 16(b) says that "ensuring the accuracy of measurement equipments for

<table>
<tr><td></td><td>settlement by undertaking meters test, control and inspection works; and reading meters through OSOS (Automatic Meter Reading System) are the responsibility of TEIAS". This confirms that TEIAS is authorised to provide the calibration of the measuring equipment. A copy of the regulation is provided, but the regulation can be downloaded from the following link: _
http://epdk.gov.tr/index.php/elektrik-piyasasi/mevzuat?id=36

First Index Protocol Issued at the time of installation of the meters /16/
<table>
<tr><th>Meter</th><th>Serial Number</th><th>Calibration Dates</th><th>Validity of Calibration</th></tr>
<tr><td>Main Meter A</td><td>53031823</td><td>09/04/2010</td><td>09/04/2020</td></tr>
<tr><td>Main Meter B</td><td>53031826</td><td>26/10/2010</td><td>25/10/2020</td></tr>
<tr><td>Backup Meter A</td><td>53031824</td><td>09/04/2010</td><td>08/04/2020</td></tr>
<tr><td>Backup Meter B</td><td>53031825</td><td>26/10/2010</td><td>25/10/2020</td></tr>
</table></td></tr>
<tr><td>Did calibration confirm proper functioning of monitoring equipment? (Yes / No):</td><td>Yes.
Both the main meters (serial number 53031823 and 53031826) and the backup meters (serial number 53031824 and 53031825) were calibrated when they were installed in year 2010, and Kesir Engineering issued the First Index Protocol on 9 April 2010 and 26 October 2010 to confirm that all the four meters were properly functioning /16/.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Yes. The calibrations are valid until year 2020 /1//16/. However the quality of the meter is checked monthly jointly by the project participant and the grid operator TEİAŞ, to ensure that the meters are working properly /1//2/. Any evidence of the malfunction of the meters will trigger an earlier calibration or other corrective measures.</td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>The exported and imported electricity generation are measured and electronically recorded by the main meters and the backup meters, and all meters are sealed and belong to the grid operator TEİAŞ.
The representatives from TEİAŞ and from Bergama RES Enerji Üretim A.Ş. jointly record, on a monthly basis, the meter readings to ensure the accuracy of the record /6/.</td></tr>
</table>

	DNV has cross checked the readings from the main meter with the readings from the back up meters /6/, and confirm that the difference is within the accuracy of the meter (0.2).
How were the values in the monitoring report verified?	Monthly meter record from bidirectional meters of electricity exported to and imported from the grid have been provided by the project participant and verified by DNV /6/. DNV has further verified the gross electricity generation from the signed meter protocols /6/ against the data generated by MFRC/PMUM (Market Finance Reconciliation Center), which is the monthly settlement document declared by the MFRC/PMUM for the purpose of invoicing the electricity produced and published electronically /7/. DNV confirm that the values are in accordance with the evidence reviewed /6//7/.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes. DNV confirmed via the site visit that there are two bi-directional main meters used to continuously measure the electricity generated by the project and delivered to the grid /1//2/. These meters are owned by TEİAŞ, and TEİAŞ is responsible for the Maintenance and calibration of the meters. DNV confirms through the site visit that these meters are sealed and locked in the main control room of the project site. Hourly and daily readings log book of the meters were also checked during the site visit and DNV confirms that the data were properly recorded for this monitoring period from 1 July 2012 to 31 December 2012 /50/. Furthermore, the electronic copies of the original data are also kept at the plant site, which is in accordance with the monitoring plan of the registered PDD /1/. Critical parameters used for the determination of the emission reductions are: • Net electricity supplied to the grid /6/; • MFRC/PMUM data/7/; All data is in compliance with the figures stated in the monitoring report version 02 dated 31 January 2013 /2/ and ER spreadsheet /3/. The data management system /9/ has been set up in

	accordance with registered monitoring plan /1/. The correct transfer of data is checked by internal control process. The emission reductions are calculated using excel worksheet, and verified /3/. The QA/QC processes have been followed.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	N/A

In accordance with the "Inspection of Measurement and Measuring Instruments Regulation" which was published in the Turkish Official Gazette (No. 22000, dated 24/7/1994) by Turkish Ministry of Industry and Commerce, the inspection of meters needs to be undertaken every 10 years /15/. This is stated in the monitoring plan of the registered PDD of 17 November 2011, and in the monitoring report /1//2/. DNV therefore confirms that the meters were calibrated covering this monitoring period as per the registered PDD, as the next calibration time would be in year 2020.

3.6 The Assessment of data and calculation of emission reductions

DNV confirms that appropriate methods and formula for calculating baseline emissions, project emissions and leakage have been followed, and the assumptions, emission factors and default values that are applied in the calculation have been justified /59/.

As stated in the section 1.4, the emission reductions ER_y by the project activity during the monitoring period is the difference between the baseline emission, project emissions and leakage /59/.

$ER_y = BE_y - PE_y - L_y$

3.6.1 Baseline emissions

Baseline emissions (BE_y in tCO_2) is the baseline emission factor ($EF_{grid,CM,y}$ in tCO_2/MWh) times the net electricity supplied by the project activity to the grid ($EG_{facility,y}$ in MWh) /59/.

$EF_{grid,CM,y}$ is emission factor of the grid, which was calculated *ex-ante* and will not be updated during the first crediting period. $EF_{grid,CM,y}$ of the proposed project in the registered PDD is 0.59384 tCO_2/MWh, which has been verified to be consistent with the registered PDD /1/.

$EG_{facility,y}$ is the net electricity supplied to the grid by the proposed project, which is determined by the electricity supplied to the grid minus the imported electricity from the grid /1//2//59/,i.e. $EG_{facility,y} = EG_{export,\ main\ meter\ 1} + EG_{export,\ main\ meter\ 2} - EG_{import,\ main\ meter\ 1} - EG_{import,\ main\ meter\ 2}$, while y represents the monitoring period from 1 July 2012 to 31 December 2012.

Table 2 Electricity supplied to the grid and imported from grid by the project (MWh)

BE_y	Baseline emissions in year y [tCO_2/yr] $BE_y = EF_{grid,CM,y} * EG_{facility,y}$	97 895
$EG_{facility,\,y}$	Net electricity supplied by the project activity to the grid [MWh]; $EG_{facility,\,y} = EG_{output,y} – EG_{import,y}$	164 851.05
$EF_{grid,CM,\,y}$	Combined margin CO_2 emission factor for grid connected power generation in year *y* calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" [tCO_2/MWh]	0.59384

The net amount of electricity generation and the resulting emission reductions are correctly reported in the monitoring report version 02 dated 31 January 2013 /2/. DNV was able to confirm the power generated during this monitoring period was reasonable.

3.6.2 Project emissions

The project emissions are regarded as zero according to the methodology ACM0002 version 12 /59/.

$PE_y = 0$

3.6.3 Leakage

There are no leakages that need to be considered in applying the methodology ACM0002 version 12 /59/.

$LE_y = 0$

3.6.4 Emission reductions

Therefore, the emission reductions in this monitoring period are:

$ER_y = BE_y - PE_y - L_y = 97\,895 - 0 - 0 = 97\,895\ tCO_2e$.

As outlined above, the input data for calculating the emission reductions, the calculating process and the result are complete and transparent. Therefore, DNV is able to confirm the accuracy of the emission reductions.

3.7 Monitoring of Gold Standard Sustainable Indicators

Additional parameters monitored are in accordance with the monitoring plan for sustainability indicators as per requirements referred in Gold Standard Annexure to PDD /64/ and the Gold Standard Passport /4/. No substantial changes have been reported for the selected indicators during the verification period of the project.

I. Local/regional/global environment

3.7.1 Air quality

As specified in the GS Passport, air quality is to be monitoring during construction and confirmed visually and by communication with local residents.

DNV confirmed through visual inspection during the site visit that at the project site the necessary road signs have been placed to request the proper use of the road, such as the speed

limit sign (speed limit for roads crossing the site is 20 km/hr) and the careful loading/unloading sign among others. This is to minimize the dust dispersion and erosion during the excavation.

It was also confirmed by interviewing local residents during previous verifications that appropriate measures were taken by the project participant to reduce the dust during the construction process. New interview was not deemed necessary as there was no construction activity during this monitoring period.

To further reduce the dust after the construction of the project, the project participant signed the Rehabilitation of Road contract with Özyavuzlar İnşaat San.Ltd.Şti. in August 2010 to construct and rehabilitate the main and secondary roads within the area of project activity, and the work was completed in September 2010 /42/. The project participant also renewed the infrastructure and asphalt surface of the roads between İsmailli and Atçılar Villages after the construction of the project power plant in October 2010. The local village of İsmailli and Atçılar issued a statement to thank the project participant for renewing the roads on 20 October 2010 /41/. The references were provided to DNV during the verification process /41//42/.

3.7.2 Soil condition

DNV confirms that during the verification process, the project participant presented DNV the payment notification and forestation fee receipts issued by Regional Directorate of Forestry, Turkish Ministry of Environment and Forestry to the project participant on 7 August 2009, which demonstrated that the project participant paid the fee to replant of trees cut due to the construction of the proposed project /21/. It has been specified in the payment notification that the forestation fee is for the forestation of 291 144.76 square meter area /21/. The project participant also provided DNV with the statement issued by the Ministry of Environment and Forestry, İzmir Regional Directorate of Forestry on 12 June 2012, which confirms that the forestry management will plant 48 500 trees after the generation license of the proposed project expires /51/.

According to the Sustainability Monitoring Plan of the GS Passport for the proposed project, the project participant should “remediate soil movements as a result of the construction of the project” /4/. The project participant provided DNV with the 2012&2013 Action Plan Protecting And Planting in and around the Aliağa Wind Farm issued by the project participant on 2 May 2012 /52/. It is stated in the “2012 & 2013 Action Plan” that 100 trees will be planted each year for year 2012 and 2013 for the propose project to remediate soil movements, while local villagers will be hired to plant the trees /52/. DNV confirms that the project participant presented DNV with the invoices issued by Oktay Sever Company to the project participant on 10 May 2012 for the purchase of 50 saplings and 20 flower seeds for the proposed project /53/, and invoice issued on 13 November 2012 for 50 trees planted in September 2012 /55/. DNV also confirms that the project participant presented DNV with the payment receipts of 550 Lira for hiring four local villagers in May and June 2012 and 3 local villagers in September 2012 to plant the trees together with the payment receipts /55//57/. DNV also saw the planting of the additional 50 plants when it was on the latest site visit, thus 100 trees in total.

Therefore it is in DNV’s opinion that the project has been carried out according to the Sustainability Monitoring Plan of the GS Passport /4/, and the implementation of reforestration can be further checked via the site visit of the subsequent verifications.

Concerning the waste disposal of the proposed project, the project participant agreed with Nordex Enerji A.Ş. that any waste material resulted from the construction of the proposed project would be disposed of by Nordex Enerji A.Ş. /49/. The relevant invoices and national waste removal forms were provided to DNV during the verification process /23//24/ and DNV was able to confirm that the national waste removal forms include both the solid waste and the waste oil.

DNV could also confirm via the site visit that solid waste undergoes collection, where recyclables are separated and dispatched to recycling centres. Solid waste collected on site are disposed by the municipality of Bergama, which was confirmed on July 2012 after request by the project on June 2012 /22/.

3.7.3 Other pollutant: Noise

Alka Environmental Laboratory issued an External Ambient Noise Measurement Report for Aliağa Wind Farm in June 2010 /36/. Alka Environmental Laboratory is an independent third party certified by Turkish Accreditation Agency /36/. The report is prepared in accordance with the Provisions of Article 14 of Environmental Law No. 2872; Ministry of Environment and Forestry Law No. 4856; and the Regulation for the Evaluation and Management of Environmental Noise /36/. The report confirmed that the maximum noise measured of the project is below the legal limits: 65 dBA (in day time), 60 dBA (in the evening) and 55 dBA (at night) /36/. As the reported was carried out by an independent third party accredited by Turkish government, and it is based on the data when all turbines started operation, DNV considers the result reliable and reflected the conditions at the project site

3.7.4 Water quality and quantity

The waste water is disposed in sceptic tanks which are emptied regularly by a local company. The relevant disposal invoices were provided to DNV at the verification stage /18/. The drinking water receipt samples from ESA Grup, Aliağa were also provided to DNV, which is for the water purchased by the project participant for its employees working at the plant site /19/. The Public Hygiene Centre of Turkish Ministry of Health issued a Drinking Water Quality Report on 19 December 2011 to confirm that the sample water of the proposed project site area is in compliance with the Regulation Concerning Water Intended for Human Consumption /20/.

In the Social Responsibility Report of Aliağa Wind Power Project provided to DNV during the verification process, it has detailed description that the project participant tried twice to help the neighbour village of Atçılar to find the water resource, as the village of Atçılar has been suffering from the lack of water for many years /38/. The first trial in December 2009 was unsuccessful, but the second trial in June 2011 was successful and the project participant found the water for Atçılar village /38/. The relevant photographs and invoices have been included in the Report /38/. Mr. Mehmet Akdeniz-Atcilan Muhtari, the head of Atçılar Village, joined the interview carried out on site visit by DNV verifier on 9 August 2012, and he confirmed that the water was found by the project participant and expressed his gratitude for that /65/. Therefore it is DNV's opinion that this indicator reflects the conditions at the project site.

3.7.5 Biodiversity

As confirmed by the registered PDD and the validation report, the project complies with the terms of the EIA-exemption letter from Ministry of Environment and Forest /1//5/. It is also stated in the registered PDD that the project site is not located along the migratory route of birds /1/. Nevertheless, DNV was able to confirm through visual inspection that red colour were painted on the tips of the turbine blade for the proposed project, and the flashing lights were installed on the nacelles' tops to increase turbine visibility at night, which is consistent with that in the monitoring plan and monitoring report /1//2/.

According to the registered PDD "Regular patrols of the site are made by the company's security guards on each shift. The guards are instructed to look out for any dead birds (and bats) that may have been struck by the turbines. The project participant issued two notifications later addressing this issue, and requesting a daily record to be kept no matter birds were found or not in June 2011 and November 2011 /40/. If such birds (or bats) are found, these are photographed and recorded in a book that is kept at the site office. If no birds (or bats) are found on a shift, that is also recorded /1/. DNV checked the Security Logbook at the project site and found that the logbook was started in November 2011 /39/ and has been recorded regularly daily during this monitoring period. DNV checked the logbook and confirm no bird were found during this monitoring period /39/.

II. Social Sustainability and Development

3.7.6 Quality of Employment

The project participant provided DNV with records of Health Check-up Report of Technical Personnel issued by State as well as private hospitals in Aliağa Town, and these reports confirmed that the technical personnel could continue their current work /46/. İDEAL Occupational Health and Safety Private Company, which is an accredited and independent third party, also issued the Aliağa Occupational Health and Safety Report, confirming that the proposed project complies with Labour Law No. 4857, and the Regulation of the Ministry of Labour and Social Security No.: 25426 on occupational safety and health services. Meanwhile, the report also identifies the potential risks and suggested actions for the proposed project on 16 November 2011, for project participant to further improve the health and safety situation for the proposed project /47/. The risk assessment was repeated by IDEAL in August 2012 and all previous observations for improvement have been implemented and closed 47/. /This Report is prepared by the assigned specialists from IDEAL for the proposed project.

In addition to the health and safety system, the project participant provided services to employees of the propose project, such as the personnel bus services and the daily meal. The relevant contracts were provided to DNV during the verification process /44//45/. Furthermore, the project participant also organized extensive trainings for the employees of the proposed project based on the work requests, including the technical training, the safety training, the management of high voltage and facilities training, the wind turbine training, etc. DNV confirms that all the training certificates have been provided at the verification stage /27//28//29//30//31//32//33//34//35/.

3.7.7 Quantitative employment and income generation

It is stated in the registered PDD that the project should provide employment opportunities for local people with wages above the local average /1/. There are in total 9 local employed in the

proposed project. DNV verifier interviewed two employees who were at the plant site on 9 August 2012 when the site visit was carried out, and they gave positive feedback for working conditions and the compensation for their work /66//67/. The project participant also provided the monthly salary report for the employees working at the plant site (2 561 TL), and the average salary of the local people is above that stated in the Structure of Earnings Survey 2010 for Aegean Region (1 250 TL), which is the latest information available published by Turkish Statistical Institute /25//26/. It was also verified that the average salary at the plant remains above the average salary in the region after considering the wage increase statistics from 2010 to 2012 (ref. CL 4).

3.7.8 Livelihood of the poor

In addition to the employment opportunities provided to the local people for the proposed project, the project participant contributed to the livelihood of the local poor people in several ways, which is listed in the annual Social Responsibility Report of Aliağa Wind Power Project provided to DNV during the verification process /38/.

During the year 2012:

- The project has made donations of computers, desks and cupboards to a nearby village school in January 2012
- Donated stationary to the commandership of gendarmerie in February 2012
- Organized and supplied a leader board for the local elementary school of Ismailli in May 2012
- The project donated food and cash to local villagers in July/August 2012

The Project provides jobs to nine people from Aliağa Town, and the Project has made various contributions to the poorest people in the vicinity (e.g. computers and projectors for İsmailli elementary school, relief supply kits for locals during Ramadan, and scholarships for the children of some employees, stationary equipment for commandership of gendarmerie in Ismailli Village etc.). The relevant photographs, invoices, donation receipts and thanks letter of the above activities have been scanned and included in the Social Responsibility Report of Aliağa Wind Power Project /38/. DNV therefore could confirm that the project made various contributions to the poorest people in the vicinity of the project area, as requested in the registered PDD /1/.

3.7.9 Public health and safety

DNV was able to confirm during the site visit that in order to safeguard the public from any potential electricity-related risks, the site is secured, with access only possible with the supervision of security. All the turbines are fenced, and the fences are grounded to avoid any third party injury or accident related to high voltage. The switchgear area, the main control chamber, and the substation are also fenced in and guarded. These precautions are taken to protect the public from any potential high voltage hazard, and it is consistent with that requested in the registered PDD /1/.

3.8 Quality of evidence to determine emission reductions

DNV confirms that a complete set of data for this monitoring period was available to be verified and was in accordance with the registered PDD dated 17 November 2011 /1/.

All data in the project site are stored in an electronic server of the power plant that has a regular and systematic backup. The monitoring data recorded from the substation are stored as

a hard copy as well as a soft copy and will be kept at least for 2 years after the end of the last crediting period /1//2/.

All necessary documentation were collected, referenced and aggregated and were easily accessible in hard-copy and electronic format. Measurements are performed by calibrated equipment, and the key data were cross-checked via other sources. No assumptions are used that have any material influence on reported emission reductions.

The only monitoring indicator is the net electricity supplied to the grid by the proposed project, which has been monitored with calibrated electricity meters.

Critical parameters used for the determination of the emission reductions were checked and confirmed during the site visit, which are listed below:

- Monthly statistics transcribed from the original data of the electricity imported and output from the grid /6/;
- Hourly and daily readings from the bidirectional meter of electricity output to and imported from the grid for the project activity /50/;
- Electricity data generated in MFRC/PMUM from 1 July 2012 to 31 December 2012 /7/.

During the site visit on 16 January 2013 and document review, all internal records regarding the electricity produced by Aliağa Wind Farm and dispatched to the grid, and the MFRC/PMUM data related to the proposed project during this monitoring period were assessed by DNV /6//7/. DNV was able to verify that Aliağa Wind Farm has an automated control system where the operation and electricity generated, consumed and exported to the grid is continuously monitored.

All the data is in compliance with the figures stated in the monitoring report, emission reduction spreadsheet and the registered PDD of 17 November 2011 /1/. The monthly recorded data were correctly transferred to the spreadsheet /3//6/.

It is concluded that in this monitoring period, the evidence for determination of ER is sufficient and reasonable. DNV was able to confirm that the result of ER calculation is reliable /3/.

3.9 Management system and quality assurance

Bergama RES Enerji Üretim A.Ş. is responsible for operating the wind power plant and monitoring the project activity in accordance with the Monitoring Manual /8/ prepared and updated for the use of Bergama RES Enerji Üretim A.Ş. The management system /9/ for the project has been verified to be in place by DNV on site. The organization structure with the responsibilities, personnel competencies, monitoring procedure and monitoring management have been properly identified and put into operation.

DNV confirmed through the site visit that the monitoring and reporting of electricity data is in accordance with the established operational procedures.

Data was collected according to the well-defined data collection procedures:

- Data of electricity exported is automatically recorded on a daily/hourly basis;
- The data is recorded and consolidated hourly by the local computer of the power plant;
- These reports are monthly consolidated and submitted to the management

department. The electricity data, including the electricity dispatched to the grid and imported from the grid by the power plant, is compared with the electricity data generated by MFRC/PMUM /6//7/.

- The electric circuit (Single Line Diagram) at the power plant, including the connection with the grid, and the electricity metering procedures of electricity generation of the project delivered to the grid were verified during the site visit and considered adequate /14/.
- An excel spreadsheet is used to calculate project emission reductions. The project participant collects data for electricity generation (EG_y). Generation is measured and recorded monthly through two high precision meters sealed and controlled by TEIAS (according to their stringent regulations). Data may also be cross-checked against MFRC/PMUM values /3//6//7/.

DNV confirms that the responsibilities and authorities in the management and operational system for monitoring and reporting are in accordance with the responsibilities and authorities stated in the registered PDD and its monitoring plan /1/.

4 VERIFICATION STATEMENT

DNV Climate Change Services AS (DNV) has performed the verification of the emission reductions that have been reported for the Aliağa Wind Farm in Turkey(Gold Standard Project ID: GS735) for the period 1 July 2012 to 31 December 2012.

The project participants are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project.

It is DNV's responsibility to express an independent verification statement on the reported GHG emission reductions from the project. DNV does not express any opinion on the selected baseline scenario or on the validated and registered PDD.

DNV conducted the verification on the basis of the monitoring methodology ACM0002 (version 12), the monitoring plan contained in the registered Project Design Document of 17 November 2011 and the monitoring report (Version 02) dated 31 January 2013. The verification included i) checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied and ii) the collection of evidence supporting the reported data.

DNV's verification approach draws on an understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. DNV planned and performed the verification by obtaining evidence and other information and explanations that DNV considers necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emissions reductions of the Aliağa Wind Farm in Turkey (Gold Standard Project ID: GS735) for the period 1 July 2012 to 31 December 2012 are fairly stated in the monitoring report (Version 02) dated 31 January 2013.

The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology ACM0002 (version 12) and the monitoring plan contained in the registered PDD of 17 November 2011.

DNV Climate Change Services AS is able to verify that the emission reductions from the Aliağa Wind Farm in Turkey during the period 1 July 2012 to 31 December 2012 amount to 97 895 tonnes of CO_2 equivalent.

Oslo, 2013-02-14

Patrice Massicard
Verifier
DNV Climate Change Services AS

Michael Lehmann
Director of Services and Technologies
DNV Climate Change Services AS

5 REFERENCES

Documents provided by the Project Participants that relate directly to the GHG components of the project. These have been used as direct sources of evidence for the periodic verification conclusions, and are usually further checked through interviews with key personnel.

/1/ EcoSecurities International Limited: *Project Design Document of Aliağa Wind Farm* version 2.5 dated 17 November 2011.

/2/ EcoSecurities International Limited: *Monitoring Report of Aliağa Wind Farm* for the period of 1 July 2012 to 31 December 2012 , version 01 of 8 January 2012 and version 02 of 31 January

/3/ EcoSecurities International Limited: *ERs calculation spreadsheet - Aliaga M3 workbook.*

/4/ Ecofys, TÜV-SÜD and FIELD : *Gold Standard Passport for Aliağa Wind Farm*

/5/ Bureau Veritas: Validation report for Aliağa Wind Farm version 06 dated 15 March 2012

/6/ Bergama RES Enerji Üretim A.S.: Aliağa monthly meter reading from 1 July 2012 to 31 December 2012 ,

/7/ Market Financial Reconciliation Center (MFRC/PMUM): Data generated in MFRC/PMUM from the from 1 July 2012 to 31 December 2012 , for Aliağa Wind Farm

/8/ EcoSecurities International Limited: Monitoring Manual of Aliağa Wind Farm version 03 dated January 2013,

/9/ Bergama RES Enerji Üretim A.S.: Aliaga Wind Farm Data Management System dated July 2012

/10/ Bergama RES Enerji Üretim A.S.: Diesel generator logbook

/11/ Turkish Electricity Transmission Company (TEİAŞ) and Bergama RES Enerji Üretim A.Ş.: Aliağa WPP Grid Usage Agreement dated 24 February 2010

/12/ Energy Market Regulatory Authority(EMRA): Aliağa Electricity Generation License dated 17 July 2008, and updated after completion date 21 August 2011

/13/ Kesir Mühendislik Elektrik A.Ş.: Calibration of the meters used in the Aliağa Wind Farm(meter no. 53031823, 53031824, 53031825, 53031826) dated 2 February 2010

/14/ TEİAŞ and Bergama RES Enerji Üretim A.Ş.: Aliağa WEPP Single Line Diagram dated 26 October 2010

/15/ Turkish Ministry of Industry and Commerce: Inspection of Measurement and Measuring Instruments Regulation dated 24 July 1994

/16/ TEİAŞ: First Index Protocol issued at the time of installation of the meters dated 9 April 2010 (meter no.53031823, 53031824) and 26 October 2010 (meter no.53031825, 53031826)

/17/ Bergama RES Enerji Üretim A.S.: Training records

/18/ Sindirgililar: invoice for emptying sceptic tank, dated 14 July 2012, 13 August 2012, 05 October 2012, 20 November 2012

/19/ ESA Grup, Aliaga: Invoice of 19l drinking water tanks, dated 12 July 2012, 31 August 2012, 3rd August 2012 and 16 November 2012

/20/ Public Hygiene Centre, Turkish Ministry of Health: Drinking Water Quality Report confirming that the sample water is in compliance with the "Regulation Concerning

Water Intended for Human Consumption" dated 19 December 2011

/21/ Regional Directorate of Forestry, Ministry of Environment and Forestry: Payment notification and the bank receipt for the payment for forestation fee dated 7 August 2009

/22/ Bergama Municipality: Confirmation of disposal of solid waste from Aliaga Wind Farm, dated 25 July 2012

/23/ Ministry of Environment and Forestry: Disposal of Nordex Turbines' Wastes National Waste Removal Form in year 2012

/24/ Nordex Enerji A.Ş.: Invoices of Disposal of Nordex Turbines' Wastes in year 2012

/25/ Turkish Statistical Institute: TurkStat, Structure of Earnings Survey, 2010 www.tuik.gov.tr/IcerikGetir.do?istab_id=166

/26/ Bergama RES Enerji Üretim A.Ş.: Monthly salary report for the employees of Aliağa Wind Farm for year 2012

/27/ Nordex Energy GmbH: Training Certificate for the employees of Aliağa Wind Farm for Concycle Wind Training 31 January 2012

/28/ Nordex Energy GmbH: Introduction to Service Training from 15 to 19 February, 21 – 25 June 2010

/29/ Nordex Academy: Training Certificate for the employees of Aliağa Wind Farm for Service Basic and Turbine Technology from 21 June to 9 July 2010

/30/ Triowind: Training Certificate for the employees of Aliağa Wind Farm for theoretical and practical safety instruction training carried out in 2010, 2011 and 2012

/31/ Yaşar University: Technique of High Voltage Training certificate from 25 – 26 November 2010, 30 May 2011

/32/ Triowind Training Certificated BURHAN KIRAÇ

/33/ A.Serdar ANLAS:: Working in High Voltage Facilities CİHAD EKMEN

/34/ A.Serdar ANLAS: Poliya Training SABRİ BARIŞ BİLGİN

/35/ Security NEZİH SALMAZ

/36/ Alka Environmental Laboratory (accredited/independent third party): Noise Measurement Report dated 29 June 2010

/37/ Bergama RES Enerji Üretim A.Ş.: Current Employment Information Summary of Aliağa Wind Farm

/38/ Bergama RES Enerji Üretim A.Ş. and Bilgin Enerji Yatırım Holding A.Ş.: Social Responsibility Report for Aliağa Wind Farm for 2012.

/39/ Bergama RES Enerji Üretim A.Ş.: Security Logbook for recording if there is any bird found around the project site area starting since 11 November 2011 to 31 December 2012

/40/ Bergama RES Enerji Üretim A.Ş. and Bilgin Enerji Yatırım Holding A.Ş.: Internal notification to security guards of Aliağa Wind Farm that finding of birds should be photographed and recorded in security logbook dated 7 June 2011 and 10 November 2011

/41/ Memorandum signed by Atçılar and Yuntdağ Village, Bergama RES Enerji Üretim A.Ş. and individual Construction Technician Contractor: *The renewal of the infrastructure and asphalt surface of the roads between İsmailli and Atçılar Villages which were corrupted during the construction of Aliağa Wind Farm* dated 20 October

2010

/42/ Bergama RES Enerji Üretim A.Ş. and Özyavuzlar İnşaat San.Ltd.Şti.: *Rehabilitation of Roads Contract* signed 20 August 2010

/43/ DEWI Gmbh: *Site-related Wind Potential Analysis and Energy Yield Assessment at the site Aliağa*

/44/ Ticket Restaurant (Edended corporate A.S.) and Bergama RES Enerji Üretim A.Ş.: *Contract for the personnel meals (breakfast, lunch, dinner) of Aliağa Wind Farm* dated 01 April 2012

/45/ Sen-ay Taşımacılık Ltd. Şti. and Bergama RES Enerji Üretim A.Ş.: *Contracts for the transport service for employees of Aliağa Wind Farm, dated 20 February 2012, valid until 31 December 2012*

/46/ State and Private Hospitals in Aliağa Town: *Health Check-ups of Technical Personnel of Aliağa Wind Farm in year 2012*

/47/ İDEAL Occupational Health and Safety Private Company (accredited/independent third party): *Aliağa Occupational Health and Safety Report carried out 16 November 2011 and 8 August 2012*

/48/ DEWI Gmbh: *Company profile* http://www.dewi.de/dewi/index.php?id=35

/49/ Bergama RES Enerji Üretim A.Ş. and Nordex Enerji A.Ş.: *Maintenance and Service Agreement Premium* dated 8 May 2009

/50/ Bergama RES Enerji Üretim A.Ş.: Log book for hourly electricity generation of Aliağa Wind Farm for this monitoring period from 1 July 2012 to 31 December 2012

/51/ İzmir Regional Directorate of Forestry, Turkish Ministry of Environment and Forestry: statement to confirm that the forestry management will plant 48,500 trees after the generation license of Aliağa Wind Farm project expires issued on 12 June 2012

/52/ Bergama RES Enerji Üretim A.Ş.: 2012&2013 Action Plan Protecting And Planting In and around the Aliağa Wind Farm dated on 2 May 2012,

/53/ Oktay Sever Company: Invoices of 50 saplings and 20 flower seeds issued to Bergama RES Enerji Üretim A.Ş. dated 10 May 2012 ,

/54/ Oktay Sever Company: Invoices of 50 young trees, dated 13 November 2012

/55/ Bergama RES Enerji Üretim A.Ş.: Payment receipts for hiring four local villagers in May and June 2012 to re-plant the trees cut during the construction of the proposed project, as well as the relevant photos for the tree planting process.

/56/ Bergama RES Enerji Üretim A.Ş.: Payment receipts for hiring three local villagers in Septembeer 2012 for planting trees, and photos of the planting process.

/57/ DNV: The 1st verification report of Aliağa Wind Farm Project in Turkey, 22 June 2012 and 2nd verification report, dated 29 August 2012

Background documents related to the design and/or methodologies employed in the design or other reference documents.

/58/ CDM Executive Board: *Validation and Verification Manual version 01.2*

/59/ CDM Executive Board: *ACM0002 " Consolidated baseline methodology for grid-connected electricity generation from renewable sources" version* 12

/60/ CDM Executive Board: *Tool to calculate baseline, project and/or leakage emissions*

from electricity consumption Version 01
http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-05-v1.pdf

/61/ IPCC: *Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories Reference Manual*.

/62/ The Gold Standard: *Gold Standard Requirements version 2.1*

/63/ The Gold Standard: *Gold Standard Toolkit version 2.1*

/64/ The Gold Standard: *Gold Standard Annexes to Toolkit version 2.1*

Persons interviewed during the initial verification, or persons who contributed with other information that are not included in the documents listed above.

/65/ Mehmet Akdeniz-Atcilan Muhtari, Mayor of the village

/66/ Deniz Yasin, maintenance technician, employee of Aliağa Wind Farm

/67/ Remzi Sahlin, security chief of Aliağa Wind Farm

/68/ Burcu Kılıç, Carbon Project Manager, Bilgin Energy Investment Holding Inc.

/69/ Burhan Kıraç, Bergama Plant Manager, Bilgin Energy Investment Holding Inc.

/70/ Rohit Lohia, Regional Implementation Manager, EcoSecurities International Limited

- o0o -

APPENDIX A

CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS

Corrective action requests

CAR ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
CAR 1	Regarding sustainable parameter no 4 'quality of employment', an annual report on the key aspect of the law is required.However in the monitoring report, it is stated that a risk assessment report was made in November 2011 and valid until November 2012 thus not covering the whole monitoring period. It was clarified during site visit that the HSE report updated in August 2012 and thus covering the monitoring period. The MR need to be updated to include this information.	As per the Article 17 of the recent occupational health and safety law no.6331 dated 20/06/2012, the H&S trainings shall be renewed in accordance with the new and changing risks, shall be repeated at regular intervals when it seen necessary. The law can be found from the website of the official gazette http://www.resmigazete.gov.tr/eskiler/2012/06/20120630-1.htm Based on the above mentioned law, the H&S training in November 2011, and the risk assessment reports prepared in November 2011 and August 2012 have not been renewed since there is no new risks occurred in the project site. The sustainable parameter no.3 'quality of employment' in the MR is updated accordingly.	The project participants provide a HSE reports conducted in August 2012, which confirm that all findings and observations from previous HSE assessment were closed. DNV is the opinion that the sustainable parameter 'quality of employment' has been correctly monitored, and the MR has been revised accordingly. CAR closed.

Clarification requests

CL ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
CL 1	It is noted that the final coordinates and layout of the turbines is different than the coordinates and layout in the registered PDD. By checking the generation license, satellites pictures as well as drawings available on site, DNV can confirm that the layout and coordinates	At the time of the initial PDD preparation the exact point location of all the project turbines were not known as the construction had not completed. Thus, the coordinates of the turbines in the PDD were close estimates. The coordinates of the turbines mentioned in the monitoring	DNV confirms that the wind turbine layout modification is shown in the generation license. The changes were made on 31/03/2009 for Turbines T1 to T36, and location of turbine T27 was further change on 10 March 2010. These changes were not known at the time

	included in the MR are correct. However, it was observed on site that another wind farm project is implemented close to the project site, whereby few of the turbines are implemented on the location shown in the registered PDD. In light of this, the reason for the change in the layout need to be clarified, as well as the date when the change occurred, and whether the change was known at the time of submission for registration. Furthermore, the impact of the final layout on the bird migration route assessment made during validation should be clarified.	report, however, are sourced from generation license which mentions the correct point coordinates of the project turbines. The generation license's coordinates are determined so as to enable most effective electricity generation from the turbines. The generation license is awarded by Energy Market Regulatory Authority (ERMA) and thus governs the setup and implementation of a project activity. The coordinates mentioned in the PDD were estimated coordinates which were revised on 31/03/2009 and 10/03/2010 to the existing layout of the project as mentioned clearly in the Articles 6 (2) and 6(4) of the Electricity Generation License issued by EMRA. Accordingly, the monitoring report is prepared with the recently revised turbine coordinates. Please note that there has been only a change in the position of these turbines and there has been no change in capacity or type of turbines from that mentioned in the registered PDD. Also, the existing layout does not interfere with the other wind farm implemented close to the project site. Also, as mentioned in the registered PDD the completion of the application of baseline study and monitoring methodology was completed on 16.01.2009 which was before these changes were mandated by the generation license. Please refer to the bird migration route map depicting the location of Aliaga wind farm. As observed, the farm is not in the bird	of PDD development in January 2009. This coordinates in the monitoring report thus reflect the actual implementation of the turbine. Besides, the project technical description in the PDD is still valid, only the coordinates has been slightly revised. Regarding bird migration route, it was stated in the PDD and confirmed by the map provided by the project participant that the project is located min. 50km from bird path. Therefore the layout change, in the range of one km from the initial layout, has no impact on the assessment made during validation. CL closed.

		migration zone. The change in layout is insignificant with respect to any impact of the biodiversity in this regard. Besides, as per the monitoring parameter "biodiversity" the instances of bird hit in the project region has been carried out and it was found that there were no instances of bird hit in the region during the monitoring period thereby substantiating no impact of this location change on the bird migration.	
CL 2	The starting date of employees should be provided in order to assess if there are new employees during this monitoring period.	Job start dates of employees are included in the "Employee Information" of the ER workbook.	Starting date of employees has been added in the Workbook, which indicate that there was one new employee during the monitoring period. This new employee had not yet passed the necessary training, this is clarified and assessed in CL3 below. CL closed.
CL3	Please clarify why 2 employees (Mahmut Barkodat and Yasin Kocaman) have not passed the HSE training and whether this comply with HSE regulations (ref. parameter 'quality of employment')	Mr. Mahmut Barkodat has passed the H&S training in another wind park of our company held on 17 November 2011 as mentioned in the certificate. The certificate clearly mentions that training on general occupational health and safety, safe working, manual handling lifting and stacking module sett study, work accidents and occupational diseases, electricity matters, etc. has been received by the trainee. The same is being submitted. Mr. Yasin Kocaman has been familiarised regarding the all risks and H&S applications within the project site by the Plant Manager. Thus all staff is aware of occupational health and safety	It is clarified that one of the employee had passed HSE training in another wind park in the same company (certificate provided), so that new training was not required. The second employee started in July 2012 and was trained by the plant the plant manager. HSE training is scheduled for February 2013. DNV is the opinion that the HSE training requirement for the employees has been met. CL closed.

		requirements at project site and HSE regulations are complied with. Further, a health and safety training shall be planned in February 2013 for any untrained staff.	
CL 4	Regarding parameter No 6 'Quantitative employment', the latest average wage available from statistical institute is from 2010. In order to compare with the 2012 wages at the project site, the inflation rate in the country for 2010 and 2011 should be indicated.	For the Aegean Region in which the project site is located, the average wage is 1,241 TL as per the "Structure of Earnings Survey Report 2010" prepared by Turkish Statistical Institute. Please note that this report is the latest report, published in March 2012 as mentioned on page 3 of the report. Nevertheless, for a comparison with the 2012 wages, instead of inflation the "Industrial Gross Wages – Salaries" index is suggested. As per Turkish Statistical Institute, Employment and wage statistics database, the wage index (base year 2005) at the end of Q4 -2010 is 171.3 and that at the end of Q3-2012 is 184.6 for electricity production sector. Thus, the wage increase from 2010 to 2012 is only 7.76%. Please refer to the link below for details: http://rapor.tuik.gov.tr/reports/rwservlet?sanayidb2=&report=ISRAPOR1r2.RDF&p_baz=2005&p_tablo=3&p_yil1=2010&p_yil2=2011&p_yil3=2012&p_f1=3511&p_kod=1&p_dil=2&desformat=html&ENVID=sanayidb2Env On the other hand, the monthly average gross salary of the Project is 2,794 TL in the year 2012 which is more than double the average wage salary as per Structure of Earnings Survey Report 2010. A-ccordingly, it can be confirmed that the	The project participants refer to wage statistics database in the activity of electricity generation. It is found the wage increase from end of 2010 to 2012 is 7.7%. Even considering this increase, the average salary in year 2012 for the project is clearly higher than the average salary in the region. Therefore, the CL is closed.

		employee salaries of the Project is much higher than the latest average wage available from Turkish Statistical Institute.	

Forward Action Request from previous Verification

FAR ID	Forward action request	Response by Project Participants	
N/A	Not applicable.	Not applicable.	Not applicable.

Forward Action Request from the current Verification

FAR ID	Forward action request	Response by Project Participants	
N/A	Not applicable.	Not applicable.	Not applicable.

- o0o -

APPENDIX B

CURRICULA VITAE OF THE VERIFICATION TEAM MEMBERS

Patrice Massicard

Patrice Massicard holds a Master degree in Mechanical Engineering, having an overall experience of around 12 years. Prior to joining DNV, patrice had around 3 years experience in the Oil & Gas industry in the design and analysis of offshore equipments, and 5 years experience as application engineer in mechanical industry covering rotating equipments.

He has experience of around 2 years in DNV for the certification of oil & gas processing equipments, and 2 year experience in the validation of verification of various CDM, JI and GS projects.

His qualification, industrial experience and experience in CDM demonstrate him sufficient competence as CDM verifier, and sectoral competence in the field oil & gas and mechanical industries. His involvement in GS verifications in Turkey also provide him the local knowledge as per GS requirements.

Giovanni Tenderini

Giovanni Tenderini holds a master degree in Energy Engineering focused on energy generation and conversion. He gained his three years professional experience in the power sector where he became familiar with International Financing Institutions project implementation methodologies (ADB, WB, IBRD, EBRD and other international banks) for organization and management of tender procedures for the award of engineering services and construction in the field of hydro and thermal power plants.
Moreover, as Power Engineer he has been in charge of the electro-mechanical design review, construction supervision, preparation of due diligences, feasibility studies, technical specifications and cost estimate of power generation projects mainly located in the Middle East area.
The current Project Manager position involves executing and managing Energy Efficiency projects, CDM/JI validation and verification assignments, executing and managing verification under voluntary schemes, and providing global support and training in the relevant specialized technical areas within the DNV KEMA global Climate Change Services team.
His qualification, industrial experience and experience in CDM demonstrate his sufficient financial expertise and sectoral competence in thermal energy generation from fossil fuels and biomass including thermal electricity from solar, energy generation from renewable energy sources, electricity distribution and energy demand.

Andres Bernabé Espejo

Holds a 6 year Bachelor/Master Degree in "Ingeniería de Montes" (Natural Resource Engineering) by the Polytechnic University of Madrid (Spain) . Having an overall experience of 7 years. Prior to joining DNV having 5 years experience in biomass generation, natural resource management, and generation with other renewables, covering the management of forestry operations, management of grasslands and pasturelands, procurement of timber and biomass, management of forest states, pre-feasibility studies for renewable generation projects, etc.

He has experience of 2 years in validation and verification of numerous CDM projects.

His qualification, industrial experience and experience in CDM demonstrate him sufficient sectoral competence in Energy Generation from renewable energy sources (Technical Area 1.2), Forestry (Technical Area 14.1) and Agriculture (Technica Area 15.1).

Furthermore, his involvement in the development of various business plans demonstrate him sufficient financial expertise.

- o0o –