



RINA

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Final

“Alize Çamseki 20.8 MW Wind Farm Project, Turkey”
in
Turkey


Monitoring period: 01/11/2011 to 31/08/2012

Report N°2012-TQ-39-MD

Revision N°1.2



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Project Title: Alize Çamseki 20.8 MW Wind Farm Project, Turkey	Country: Turkey	Estimated VERs (tCO_{2e}): 51,955 annual average
GS Registration Reference N°: 399	Monitoring period: 01/11/2011 to 31/08/2012	Certified VERs (tCO_{2e}): 36,815
Client: Alize Enerji Elektrik Uretim A.S.	Client contact: Salih UYSAL	
Report No.: 2012-TQ-39-MD	Revision: 1.2	Date of this report: 02/11/2012
Approved by:  Roberto Cavanna		Date of approval: 05/11/2012

Methodology

Number:	Version:	Title:	Scale	SS(s):
ACM0002	07 of 30/11/2007	Consolidated baseline methodology for grid-connected electricity from renewable sources	Large	1

RINA Services S.p.A. (RINA), commissioned by Alize Enerji Elektrik Uretim A.S., has verified the greenhouse gas emission reductions reported for the project activity "Alize Çamseki 20.8 MW Wind Farm Project, Turkey" in Turkey, GS Registration Reference N° 399, for the period 01/11/2011 to 31/08/2012, with regard to the relevant requirements for CDM and GS activities. The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable GS VER requirements, which refer to CDM rules, in order to be certified.

The project was validated by TÜV Rheinland (validation report N° 2008-9217 issued on revision 02.2 of 29/06/2010) and it was registered on 29/06/2010 under the GS registration reference N° 399.

The GHG emission reductions were calculated on the basis of the approved methodology ACM0002, version 07, "Consolidated baseline methodology for grid-connected electricity from renewable sources" of 30/11/2007 and the monitoring plan included in the registered Project Design Document, version 3.1 of 31/05/2010.

In conclusion, it is RINA's opinion that the project activity "Alize Çamseki 20.8 MW Wind Farm Project, Turkey", in "Turkey", as described in the Monitoring Report version 1.3 of 02/11/2012, meets all relevant requirements for GS and CDM activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 07 of 30/11/2007. Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/11/2011 to 31/08/2012 amount to 36,815 tCO_{2e}.

Baseline Emissions	36,815 tCO _{2e}
Project Emissions	0 tCO _{2e}
Leakage	0 tCO _{2e}
Net GHG emission reductions/removal	36,815 tCO _{2e}

Work carried out by:

Isil TIMUROGLU



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Work verified by:

Laura Severino



Keywords:

Climate Change, Kyoto Protocol, Verification, Gold Standard

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Abbreviations

AF	Adjustment Factor
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CEF	Carbon Emission Factor
CH ₄	Methane
CR	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CRT	Coordination and Technical Control Staff
DCI	Certification Division of RINA Services Spa
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
ER	Emission Reductions
GHG(s)	Greenhouse gas(es)
GS	Gold Standard
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LFG	Landfill gas
LoA	Letter of Approval
MoV	Means of Verification
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
OSOS	Automatic Meter Reading System
PDD	Project Design Document
PE	Project Emission
PMUM	Market Financial Conciliation Center (Piyasa Mali Uzlastirma Merkezi)
PP(s)	Project Participant(s)
Ref.	Document Reference
RINA	RINA Services Spa
SDI	Sustainable Development Indicator
SS(s)	Sectoral Scope(s)
TEIAS	Turkish Electricity Transmission Company (Turkiye Elektrik Iletim A.S.)
UNFCCC	United Nations Framework Convention on Climate Change
VERs	Verified Emission Reduction(s)
VVM	Validation and Verification Manual



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1 INTRODUCTION

Alize Enerji Elektrik Uretim A.S. has commissioned RINA to carry out the verification and certification of emission reductions reported for the registered “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” project in Turkey, GS Registration Reference N°399, for the period 01/11/2011 to 31/08/2012.

This report summarizes the findings of the verification of the project, performed on the basis of GS VER requirements, which refer to CDM rules, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

The objective of the verification is to have an independent review 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 and to monitor the impact of project activity on sustainable development, throughout the monitoring of the non-neutral Sustainable Development Indicators and moreover to monitor all the mitigation and compensation measures put in place. Certification is the written assurance by the DOE that, during a specific time period, a proposed GS project activity achieved the reductions in anthropogenic emissions by sources of GHGs as verified and that all the defined Sustainable Development Indicators to be monitored have been monitored according to the sustainability monitoring plan and that all the mitigation measures forecast have been correctly and effectively implemented.

The objective of this verification/certification was to verify and certify emission reductions and effective implementation of the monitoring of sustainable development indicators and mitigation measures, reported for the “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” project in Turkey for the period 01/11/2011 to 31/08/2012.

1.2 Scope

The verification scope 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;
- to evaluate whether all the mitigation measures have been effectively put in place according to the monitoring plan and that all the sustainable development indicators have been correctly monitored.

Verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable GS VER requirements, which refer to CDM rules, in order to be certified.

UNFCCC criteria for CDM refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, and the subsequent decisions by the CDM Executive Board.

The GS criteria refer to GS requirements, GS Toolkit and supporting annexes.

Verification is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring.

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2 METHODOLOGY

Verification was conducted using RINA procedures in line with the requirements specified in the GS Requirements, CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques.

The verification consisted of the following three phases:

- Desk review;
- On-site assessment;
- The resolution of outstanding issues and the issuance of the final verification report and certification.

The following sections outline each step in more detail.

2.1 Desk Review

The monitoring report, version 1.0 of 28/08/2012, version 1.1 of 08/10/2012, version 1.2 of 30/10/2012 and version 1.3 of 02/11/2012 [/2/](#), the emission reduction calculations provided in the form of a spreadsheet, “ER-Calculations-Uvecik-MR03-20120828” version 01 and “ER-Calculations-Uvecik-MR03-20121008” version 02 [/3/](#), the approved baseline and monitoring methodology ACM0002 version 07 of 30/11/2007 [/7/](#) and all the documentation provided to support the monitoring period [/01 – 36/](#) were assessed as part of the verification. In addition, the Project Design Document (PDD) [/1/](#), in particular as regards the baseline estimations and the monitoring plan, and the validation report, revision 02.2 of 29/06/2010 [/10/](#) for the project, were reviewed.

The following table lists the documentation that was reviewed during the verification.

/1/	MAVI Sürdürülebilir Kalkınma Proje ve Danışmanlık Hizmetleri Ltd. Sti.: CDM-PDD for “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” in Turkey, version 3.1 of 31/05/2010
/2/	MAVI Sürdürülebilir Kalkınma Proje ve Danışmanlık Hizmetleri Ltd. Sti.: Monitoring Report for “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” in Turkey, version 1.0 of 28/08/2012 MAVI Sürdürülebilir Kalkınma Proje ve Danışmanlık Hizmetleri Ltd. Sti.: Monitoring Report for “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” in Turkey, version 1.1 of 08/10/2012 MAVI Sürdürülebilir Kalkınma Proje ve Danışmanlık Hizmetleri Ltd. Sti.: Monitoring Report for “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” in Turkey, version 1.2 of 30/10/2012 MAVI Sürdürülebilir Kalkınma Proje ve Danışmanlık Hizmetleri Ltd. Sti.: Monitoring Report for “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” in Turkey, version 1.3 of 02/11/2012
/3/	MAVI Sürdürülebilir Kalkınma Proje ve Danışmanlık Hizmetleri Ltd. Sti.: Emission Reduction Calculation Spreadsheet “ER-Calculations-Uvecik-MR03-20120828” version 01 submitted on 28/08/2012 MAVI Sürdürülebilir Kalkınma Proje ve Danışmanlık Hizmetleri Ltd. Sti.: Emission Reduction Calculation Spreadsheet “ER-Calculations-Uvecik-MR03-20121008” version 02 submitted on 08/10/2012
/4/	The Gold Standard Foundation: The Gold Standard Validation & Verification Manual for Voluntary Offset Projects of June 2007
/5/	The Gold Standard Foundation: Voluntary Emission Reductions (VERs) Manual for Project Developers, of May 2006
/6/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard, version 02.0 of 25/12/2011
/7/	CDM Executive Board: Baseline and Monitoring Methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity from renewable sources”, version 07 of 30/11/2007
/8/	CDM Executive Board: Guidelines for Completing the Monitoring Report Form, version 02.0 of 02/03/2012

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/9/	CDM Executive Board: Methodological Tool "Tool to calculate the emission factor for an electricity system", version 01.1 of 29/07/2008
/10/	TÜV Rheinland: Validation Report for "Alize Çamseki 20.8 MW Wind Farm Project, Turkey" No. 2008-9217 revision 02.2 of 29/06/2010
/11/	Bureau Veritas: First and Initial Verification Report for "Alize Çamseki 20.8 MW Wind Farm Project, Turkey" in Turkey, No. TURKEY/CER.986.10.C45/2010 version 04 of 26/11/2010
/12/	The Gold Standard Foundation: Alize Çamseki 20.8 MW Wind Farm Project, Turkey (GS399) 2-week Issuance Review Period Document for 1 st Monitoring Period of 21/12/2010
/13/	Germanischer Lloyd Certification GmbH: Second Verification Report for "Alize Çamseki 20.8 MW Wind Farm Project, Turkey" No. GS 020, Rev. 05 of 12/01/2012
/14/	The Gold Standard Foundation: Alize Çamseki 20.8 MW Wind Farm Project, Turkey (GS399) 2-week Issuance Review Period Document for 2 nd Monitoring Period of 13/02/2012
/15/	Turkish Electricity Transmission Company (TEIAS): First Index Protocol of 25/06/2009 of Landis+Gyr Meters Serial 95834742 and 95834743
/16/	Landis+Gyr Ltd.: Calibration Record of Landis+Gyr Meters Serial 95834742 and 95834743 of 02/07/2010
/17/	Landis+Gyr Ltd.: Technical Data Sheet of Landis+Gyr Meters Type ZMD402C
/18/	Turkish Electricity Transmission Company (TEIAS): Test Reports of 31/07/2012 of Landis+Gyr Meters Serial 95834742 and 95834743
/19/	The Energy Market Regulatory Authority: Electricity Market Balancing and Settlement Regulation of 14/04/2009
/20/	Energy Market Regulatory Authority: Generation License numbered EU/1167-1/834 of 18/04/2007 (last amendment on 07/06/2011)
/21/	The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 24/06/2009
/22/	Turkish Electricity Transmission Company (TEIAS) Monthly Meter Reading Protocol November 2011 of 01/12/2011 Monthly Meter Reading Protocol December 2011 of 01/01/2012 Monthly Meter Reading Protocol January 2012 of 01/02/2012 Monthly Meter Reading Protocol February 2012 of 01/03/2012 Monthly Meter Reading Protocol March 2011 of 01/04/2012 Monthly Meter Reading Protocol April 2012 of 01/05/2012 Monthly Meter Reading Protocol May 2012 of 01/06/2012 Monthly Meter Reading Protocol June 2012 of 01/07/2012 Monthly Meter Reading Protocol July 2012 of 01/08/2012 Monthly Meter Reading Protocol August 2012 of 01/09/2012
/23/	Market Financial Conciliation Center (PMUM): All Monthly Electricity Records with in the Monitoring Period (from 01/11/2011 to 31/08/2012)
/24/	Alize Enerji Elektrik Uretim A.S.: Electricity Generation Invoices Electricity Generation Invoice November 2011 of 01/12/2011 Electricity Generation Invoice December 2011 of 01/01/2012 Electricity Generation Invoice January 2012 of 01/02/2012 Electricity Generation Invoice February 2012 of 01/03/2012 Electricity Generation Invoice March 2012 of 01/04/2012 Electricity Generation Invoice April 2012 of 01/05/2012 Electricity Generation Invoice May 2012 of 01/06/2012

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	Electricity Generation Invoice June 2012 of 01/07/2012 Electricity Generation Invoice July 2012 of 16/08/2012 Electricity Generation Invoice August 2012 of 18/09/2012
/25/	District Directorate of Civil Registry: Residence Certificates of all Employees
/26/	Social Security Institution: Payroll Sheets of all Employees for each month during the monitoring period from 01/11/2011 to 31/08/2012
/27/	Enercon: Wind Technical Data Sheet of Enercon's E-82 and E-48 Wind Turbines
/28/	EMA Elektrik Makina Arastirma Tic. A.S.: Block Diagram of Electricity Circuit of 30/01/2009
/29/	Ekolab Environmental Analysis Laboratory: Noise Emission Report of 12/06/2009
/30/	Demirer Enerji Uretim San. ve Tic. A.S.: Protection and Relay 154 kV Systems Training, 11/04/2012, Certificates issued to Engin Toy, Ibrahim Karaman, Serkan Yasar
/31/	Demirer Enerji Uretim San. ve Tic. A.S.: Protection and Relay 154 kV Systems Training, 18/04/2012, Certificates issued to Fatih Dilmac
/32/	Enercon Servis Ltd. Sti.: Training about ISO4309, crane, control, safety of 30/03/2012, Certificates issued to Omur R. Soner, Murat Yilmaz, Cihad Ozden, Ozgur Oz
/33/	The Ministry of Trade and Industry: Regulation of Metering and Testing of Metering Systems of 24/07/1994
/34/	Energy Market Regulatory Authority: Communiqué for Measurement Devices used in the Electricity Market of 22/03/2003
/35/	Çanakkale Municipality Fire Department: Fire and Fire Safety Training of 15-22/06/2012, Certificates issued to Omur R. Soner, Murat Yilmaz, Cihad Ozden, Ozgur Oz
/36/	Ornithological Report for Alize Çamseki 20.8 MW Wind Farm Project, Turkey prepared by Kerem Ali Boyla, MSc Ecologist, Ornithologist of October 2012

2.2 On-site assessment

On 14/09/2012, RINA visited the wind power plant located in Ezine district, Çanakkale province of Turkey. During the on-site assessment of the project, all the equipments and the systems were accessible. RINA assessed the implementation and operation of the proposed project activity, reviewed the information flows for generating, aggregating and reporting the monitoring parameters, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant, checked the monitoring equipment including calibration performance, reviewed calculations and assumptions made in determining the GHG data and emission reductions, checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters, checked the correct and effective implementation of the mitigation measures foreseen in the sustainability monitoring plan.

The wind farm engineer has been interviewed with the purpose to see how the monitoring procedures were implemented, the whole process was explained to the verification team during the site visit on 14/09/2012. During the site visit, the coffee house located in Uvecik Village has been visited and the villagers as well as the head of village have been interviewed at the coffee house about local employment, bird death, and noise pollution caused by the project activity. The villagers have mentioned that they have not observed any bird deaths and no complaints were received regarding noise. The carbon consultant has been interviewed about the monitoring report and related parameters on, which the whole process related emission reduction calculation and sustainability monitoring plan was explained.

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The key personnel interviewed and the main topics of the interviews are summarized in the table below.

	Date	Name and Role	Organization	Topic
/a/	14/09/2012	Mr. Yagmur KARABULUT <i>Carbon Consultant</i>	MAVI Sürdürülebilir Kalkınma Proje ve Danışmanlık Hizmetleri Ltd. Sti.	Monitoring plan Monitoring methodology Monitoring data Implementation status of the project
/d/	14/09/2012	Mr. Engin TOPCU <i>Wind Farm Responsible Engineer</i>	Enercon Servis Ltd. Sti.	Monitoring equipments and operation Calibration certificates Emission Reductions calculation
/e/	14/09/2012	Mr. Engin TOY <i>Plant Responsible Technician</i>	Alize Enerji Elektrik Üretim A.S.	Noise Emission Bird Death Local Employment Working Conditions Job Quality
/f/	14/09/2012	Mr. Nail DINCKAL <i>Head of Uvecik Village</i>	Uvecik Village	Benefit of the project to the village Local Employment Project Effects
/g/	14/09/2012	Mr. Ferdi HIZLI	Uvecik Village	Noise Emissions Bird Migration Road Conditions

2.3 Resolution of outstanding issues

The objective of this phase of the verification is to resolve any outstanding issues, which need to be clarified for RINA's positive conclusion on the monitoring report and emission reductions.

To guarantee transparency a verification protocol has been customized for the project. The protocol shows in a transparent manner the requirements, means of verification and the results from verifying the identified criteria. The verification protocol consists of three tables; the different columns in these tables are described in the figure below (see Figure 1). The completed verification protocol is enclosed in Appendix A to this report.

A corrective action request (CAR) is raised if one of the following occurs:

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

A clarification request (CR) is raised if information is insufficient or not clear enough to determine whether the applicable GS VER requirements, which refer to CDM rules, have been met.

CARs, CRs identified are included in the verification protocol in Appendix A of this report.

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Figure 1 Gold Standard Verification protocol tables

Verification Protocol, Table 1 - Requirement checklist					
Checklist Question	Ref.	MoV	Comments	Draft Conclusion	Final Conclusion
Checklist questions organized in seven different sections.	Makes reference to documents where the answer to the checklist question or item is found.	Explain how conformance with the checklist question is investigated. Examples are document review (DR), interview or any other follow-up actions (I), cross checking (CC) with available information relating to projects, (N/A) means not applicable.	The discussion on how the conclusion is arrived at and the conclusion on the compliance with checklist question so far.	For CAR, CR and FAR see the definitions above.	OK is used if the information and evidence provided is adequate to demonstrate compliance with GS VER requirements, which refer to CDM rules.

Verification Protocol, Table 2: Resolution of Corrective Action Requests and Clarification			
Corrective action requests and/or clarification requests	Reference to Table 1	Response by project participants	Verification Conclusion
The CAR and/or CRs raised in table 1 are repeated here.	Reference to the checklist question number in Table 1 where the CAR or CR is explained.	The responses given by the project participants to address the CARs and/or CRs.	The verification team's assessment and final conclusion of the CARs and/or CRs.

Verification Protocol, Table 3 - Forward Action Requests		
Forward action request	Reference to Table 1	Response by project participants Verification Conclusion
The FAR raised in table 1 is repeated here.	Reference to the checklist question number in Table 1 where the FAR is explained.	Response by the project participants on how forward action request will be addressed.

2.4 Internal quality control

All the revisions of the verification report, before being submitted to the client, were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent RINA instructions.

The technical review was performed by a technical reviewer(s) qualified in accordance with RINA's qualification scheme for CDM/GS validation and verification.

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2.5 Verification team and the technical reviewer(s)

The verification team and the technical reviewers consist of the following personnel:

Role/Qualification	Last Name	First Name	Country
GS Team Leader – GS Verifier – Technical Expert	Timuroglu	Isil	Turkey
Technical Reviewer	Valoroso	Rita	Italy
Technical Reviewer	Tong	Wing Yu	Hong Kong (China)

3 VERIFICATION FINDINGS

The findings of the verification related to the monitoring period from 01/11/2011 to 31/08/2012 as documented and described in the monitoring report version 1.0 of 28/08/2012, version 1.1 of 08/10/2012, version 1.2 of 30/10/2012 and version 1.3 of 02/11/2012/2/ are stated in the following sections.

The verification requirements, the means of verification and the results from verifying the identified criteria are documented in more detail in the verification protocol in Appendix A.

3.1 Description of the project activity

The main information of the project is summarized in the table below.

Project Participant(s)	Alize Enerji Elektrik Uretim A.S.		
Project Title	Alize Çamseki 20.8 MW Wind Farm Project, Turkey		
Location of the project	Ezine District, Çanakkale Province of Turkey		
Methodology(ies)	ACM0002", "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 07 of 30/11/2007 /7/		
Sectoral Scope(s)	1	RINA's Technical Area(s)	1.2
Registered PDD	Revision 3.1 of 31/05/2010		
Date of registration	29/06/2010	GS Registration Reference N°	399
Starting date of the crediting period	01/07/2009 (as confirmed through the First Verification Report /11/)		
Project's crediting period	01/07/2009 to 31/06/2016		
Monitoring period	01/11/2011 to 31/08/2012 (both days included)		
Project documentation link	https://gs2.apx.com/mymodule/ProjectDoc/EditProjectDoc.asp?id1=399		

The project activity is a wind power plant includes 10 units of E82 turbines with a unit output of 2000 kW and 1 unit of E48 turbine with an output of 800 kW. The total installed capacity of the project activity is 20.8 MW. The generated electricity is fed to the national grid. The estimated net electricity

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production is 81,800 MWh per year and the annual emission reductions are estimated to be 51,955 tCO₂e per year. During the 3rd monitoring period of 01/11/2011 to 31/08/2012 (both days included) the net electricity supplied to the grid amount to 57,976.737 MWh and the emission reductions to 36,815 tCO₂e.

The project activity aims to reduce the greenhouse gas emissions in Turkey by replacing fossil fuel power generation and contribute to the development of the wind energy sector in Turkey, as well as aims to support the local economy by creating local employment and providing equipment locally.

3.2 Remaining issues (FARs) from previous validation or verification

Based on the review of previous Verification Report for 2nd Monitoring Period of 12/01/2012 /13/ no FAR has been raised by DOE, however, 1 FAR has been raised during the 1st monitoring period by the DOE is still open

FAR 1, DOE: With reference to FAR 2 from the 1st verification, the verification team confirms that the research on the impact of wind turbines on military radars is still ongoing. It was understood from the interviews with the PPs that if there would be any impact on radar system, all the wind turbines in the host country might be stopped. This shall be verified during the 3rd verification.

The research on the impact of wind turbines on military radars is still ongoing; therefore, this FAR shall be verified during the 4th monitoring period. FAR 1 raised by validation DOE is still open.

Based on the review of 2-week Issuance Review Period Document for 2nd Monitoring Period of 13/02/2012 /14/ 2 FAR has been raised by the Gold Standard during 2nd monitoring period.

FAR 1, Gold Standard: According to the bird migration map of Turkey (prepared by the Society of Nature which is a designated partner of Bird Life International) and based on the other literature findings, the submitted desktop bird study for the project has several inconsistencies and mistake. The project location is on a secondary (tali) migration route. Hence, a comprehensive ornithology study shall be conducted by an ornithologist with competent background and expertise prior to next verification.

The study shall take into account of the following risk factors at minimum and shall include more other factors if needed:

- Migration factor
- Bird species (both creeping birds (migration and local) and active migrating birds)
- Bird flying figure/style
- Turbine location
- Meteorological factors (wind direction and other effective factors)

The study shall include a literature review together with site surveys and methodology used shall be explicitly presented. Site survey shall be well planned according to migration seasons with adequate number of days allowing observation of representative bird activities. The findings shall be precisely reported including time, species types and number of species and location/coordinates. Based on the study findings, a discussion and recommendations section shall be given at the end of the report and recommended mitigation measures shall be well discussed.

The bird migration report prepared by an Ornithologist dated October 2012 is submitted to the verification team /36/. As per the report, the project activity does not have any negative impact on the birds and RINA accepted the same. The bird migration report can be considered satisfactory, thus FAR 1 is closed.

FAR 2, Gold Standard: During the next verification site visit, verification DOE shall interview locals living in the vicinity of the project in order to gain feedback on bird activities including bird strikes and deaths if any occurred due to the project turbines.

The local people have been interviewed during the site visit and no negative comment has been received. The coffee house located in the Uvecik Village has been visited and the villagers as well as the head of village have been interviewed at the coffee house about local employment, bird death, and noise pollution caused by the project activity. The villagers have mentioned that they have not

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observed any bird deaths and bird migration. The local people have been interviewed during the onsite visit, thus FAR 2 is closed.

3.3 Project implementation

It was verified during the site visit conducted on 14/09/2012 that the proposed project activity has been implemented and it is in operation in accordance with the project activity described in the registered PDD /1/.

The starting date of operation is 24/06/2009 as confirmed through the temporary acceptance protocol /21/. After a test period, the first crediting period of the project activity started on 01/07/2009 as per the registered PDD /1/ and the first verification report /11/. The project activity is a wind power plant includes 10 units of E82 turbines with an unit output of 2000 kW and 1 unit of E48 turbine with an output of 800 kW. The total installed capacity of the project activity is 20.8 MW. The project boundary in the registered PDD /1/ is in line with the actual project boundary. Generated electricity is supplied to the National Electricity Transmission Grid of Turkey via the 154 kV Ezine transmission line as per the generation license /20/.

No change in the registered PDD /1/ has been occurred during the third monitoring period of 01/11/2011 to 31/08/2012.

Based on the on-site inspection and checking the above documents, RINA confirms that the project activity has been implemented and it is in operation as described above in accordance with the project activity in the registered PDD /1/.

3.4 Methodology for determining Emission Reductions

According to the applied methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity from renewable sources”, version 07 of 30/11/2007 /7/, the emission reductions have been calculated based on the following formula:

$$ER_y = BE_y - PE_y - L_y$$

Where:

BE_y = Baseline emissions in year y (tCO₂e/yr)

PE_y = Project emissions in year y (tCO₂e/yr)

L_y = Leakage emissions in year y (tCO₂e/yr)

The baseline emissions include the CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity, multiplying the electricity supplied to the grid (MWh) with the combined margin CO₂ emission factor for grid connected power generation in year.

$$BE_y = (EG_y - EG_{\text{baseline}}) \times EF_{\text{grid,CM,y}}$$

Where:

BE_y : Baseline emissions in year y (tCO₂/yr)

EG_y : Electricity supplied by the project activity to the grid (MWh)

EG_{baseline} : Baseline electricity supplied to the grid in the case of modified or retrofit facilities (MWh)

EF_{grid,CM,y} : Combined Margin CO₂ emission factor (tCO₂/MWh)

Y : Refers to a given year

The project emissions are assumed to be zero as per the ACM0002 version 07 /7/ since the project is a renewable energy project as defined in the registered PDD /1/ and the validation report /7/. The leakage emissions are assumed to be zero as per the ACM0002 version 07 /7/ as defined in the

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registered PDD /1/. Since the project and leakage emissions are zero, the emission reduction equals to baseline emissions.

3.4.1 Compliance of the monitoring plan with the monitoring methodology

The registered project activity applies the approved baseline and monitoring methodology ACM002 version 07 /7/. RINA confirms that the monitoring plan in the registered PDD /1/ complies with the applied CDM methodology and with the sustainability indicators established by the Appendix D of the Gold Standard requirements /4/.

3.4.2 Deviation in GHG emission reduction

Additionality assessment has been performed according to the “Tool for the demonstration and assessment of additionality” approved by UNFCCC in the registered PDD /1/. The baseline scenario selection and the calculation of emission reductions have been carried out as per the approved CDM methodology, ACM002 version 07 /7/. RINA considers the same conservative and thus accepted.

3.4.3 Compliance of monitoring with monitoring plan

The monitoring plan presented in the monitoring report version 1.3 of 02/11/2012 for the period of 01/11/2011 to 31/08/2012 (both days included) /2/ complies with the monitoring plan in the registered PDD /1/.

In the registered PDD /1/, the source of the net electricity generation is defined as monthly meter reading protocols of TEIAS. However, since TEIAS started to monitor electricity remotely, Monthly Meter Reading Protocols are no longer available. Electricity Market Balancing and Conciliation body has declared that all readings would be carried out remotely as of 01/02/2012 based on an amendment in the law on Electricity Market Balancing and Conciliation (Clause 81) /19/. Therefore, the source of the parameter is defined as “Market Financial Settlement Center (PMUM) records which are the basis of the invoices.

The only monitoring parameter is net electricity generation supplied by the project activity to the grid as per the registered monitoring plan presented in the registered PDD /1/. The net electricity generation (EG_y) is monitored continuously by two electricity meters that are located at the project activity. Two electricity meters are installed at the project site. The main meter is Landis+Gyr ZMD402C with a serial number of 95834743 and the backup meter is Landis+Gyr ZMD402C with a serial number of 95834742. Each meter has an accuracy of 0.2s as confirmed through the Calibration Records /16/ and technical data sheet of meters /17/. The accuracy class of the meters complies with the “Communiqué for Measurement Devices used in the Electricity Market” /34/. The electricity meters are sealed by TEIAS as confirmed during the site visit. TEIAS is responsible for calibration and maintenance of the devices as per the registered PDD /1/. The project owner has no control on the meters since the meters are sealed by the TEIAS as confirmed during the site visit. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. The meters have been calibrated by the supplier on 02/07/2010 as confirmed through the calibration record /16/. Also, the meters have been tested on 31/07/2012 by TEIAS as confirmed through the test report /18/; however, it is not mentioned in the Monitoring Report. As per the “Regulation of Metering and Testing of Metering Systems”, the meters shall be calibrated every 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation /33/. At the last day of each month, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by TEIAS. The plant staff explained the monitoring procedures during the site visit. As confirmed through the observation, the plant personnel records the electricity generation from the meters and fills the monthly reading protocols. The monthly meter reading protocols are sent to TEIAS. In case of difference between the monthly meter reading protocol and OSOS readings, TEIAS read the meters on project site. The net electricity generation and electricity consumption of the project activity is based on the PMUM official records /23/, which is the basis of invoices. The PMUM records are crosschecked with the invoices /24/ and monthly meter reading protocols /22/. The PMUM records and emission reduction calculation spreads sheet /3/ are consistent. During the 3rd monitoring period of 01/11/2011 to 31/08/2012 (both

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days included) the net electricity supplied to the grid amount to 57,976.737 MWh and the emission reductions to 36,815 tCO₂e.

According to the monitoring plan in the registered PDD /1/ and in the monitoring report /2/, the following sustainability parameters are monitored: “Quality and quantity of local employment (ID.2)”, “Air Quality (ID.3)”. The “Quality of local employment” indicator is used to evaluate the qualitative value of employment. The project owner considered training as an important issue to improve the job quality of employees. The health and safety precautions are taken as confirmed through the on-site observation and interviews with the employees. The equipment rooms have been seen and it has been observed that health and safety equipment are available and ready to be used. Also, it has been observed that employees use the personal protective equipment. Trainings that were given to the personnel were verified through the training certificates /30/ /31/ /32/ /35/. The “Quality of local employment” indicator represents an indicator of economic sustainability measuring the number of additional jobs directly created by the project. The project creates jobs in the project area. 13 people are employed by the project activity and all of them are local people as confirmed through the “Payroll Sheets of Social Security Institution” /26/ and “Residence Certificates” /25/. The “Air Quality” indicator is used to evaluate the reduction of SO₂ and NO_x emissions by the project activity. The SO₂ and NO_x emission intensities, which are fixed in the registered PDD /1/, are multiplied with the net electricity generation of the project activity. In parallel to the electricity generation SO₂ emission reduction has been realized as 296.1 tons and NO_x emission reduction has been realized as 63.9 tons during this monitoring period.

The following parameters have been monitored in accordance with the monitoring plan in the registered PDD /1/ and the monitoring report /2/.

3.4.3.1 Data fixed ex-ante

DATA/PARAMETER	Source of data	Reported value for the project period	Assessment/Observation
EF _{grid,CM,y} Combined margin grid emission factor	TEIAS statistics	0.635 tCO ₂ /MWh	According to the approved methodology ACM0002 version 07, the combined emission factor has been determined using the ex-ante option and so it is not requested to monitor and recalculate the emission factors during the crediting period. The combined emission factor is determined to be 0.635 tCO ₂ /MWh in the registered PDD /1/ and validation report /7/.

3.4.3.2 Monitored data

DATA/PARAMETER	EGy (ID. 1)
Data Unit	MWh
Description	Annual net electricity amount fed to the grid by the project activity
Source of data to be used	PMUM records
Value data for the monitoring period	57,976.737 MWh
Measuring and reporting frequency; recording procedure	Continuously monitoring and monthly recording
Type of monitoring equipment and its accuracy	Two electricity meters are installed at the project site. The main meter is Landis+Gyr ZMD402C with a serial number of 95834743 and the backup meter is



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	<p>Landis+Gyr ZMD402C with a serial number of 95834742. Each meter has an accuracy of 0.2s as confirmed through the Calibration Records /16/ and technical data sheet of meters /17/. The accuracy class of the meters complies with the “Communiqué for Measurement Devices used in the Electricity Market” /34/.</p>
<p>Calibration frequency/interval</p>	<p>TEIAS is responsible for calibration and maintenance of the devices as per the registered PDD /1/. The project owner has no control on the meters since the meters are sealed by the TEIAS as confirmed during the site visit. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration.</p> <p>The meters have been calibrated by the supplier on 02/07/2010 as confirmed through the calibration record /16/. Also, the meters have been tested on 31/07/2012 by TEIAS as confirmed through the test report /18/; however, it is not mentioned in the Monitoring Report.</p> <p>As per the “Regulation of Metering and Testing of Metering Systems”, the meters shall be calibrated every 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation /33/.</p> <p>During the on-site assessment, it was confirmed that the meters are in place and functions well. During the monitoring period, no break down has been recorded.</p>
<p>How were the values in the monitoring report verified and cross-checked?</p>	<p>The net electricity generation and electricity consumption of the project activity is based on the PMUM official records /23/, which is the basis of invoices. The PMUM records are crosschecked with the invoices /24/ and monthly meter reading protocols /22/.</p>
<p>Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions?</p>	<p>At the last day of each month, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS. Electricity Market Balancing and Conciliation body has declared that all readings would be carried out remotely as of 01/02/2012 based on an amendment in the law on Electricity Market Balancing and Conciliation (Clause 81) /19/.</p> <p>The plant staff explained the monitoring procedures during the site visit. As confirmed through the observation, the plant personnel records the electricity generation from the meters and fills the monthly reading protocols. The monthly meter reading protocols are sent to TEIAS. In case of difference between the monthly meter reading protocol and OSOS readings, TEIAS read the meters on project site.</p> <p>The electricity generation supplied to the grid and the electricity consumption from the grid is stored by PMUM on the web site. The Project owner has an ID and password to access this data on the web site. The project owner can easily access the data by using this portal.</p>

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If 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?	All the data were available for the whole monitoring period.
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3.4.3.3 Gold Standard sustainability monitored parameters

Data variable	Source of Data	Reported value for the project period
Quality of local employment (ID. 2)	Payroll Sheets of Social Security Institution /26/ Training certificates /30/ /31/ /32/ /35/	<ul style="list-style-type: none"> - Health and safety precautions - Protection and Relay Systems in 154 kV Stations - TS_ISO_4309, Mechanical control of chain hoists and rope winches, changing the rope weight of a winch, heavy weight chain hoist, winch test BGV8, control of winch carrying handle, planeta chain hoist freight constraint, run cable winch frame, T1023 E48-E53, certex chain hoist control, ESC_Case Study, occupational safety limit lists - Fire and Fire Safety Training
Assessment		
All necessary health and safety precautions are taken as confirmed through the on-site observation and interviews with the employees. The equipment rooms have been seen and it has been observed that health and safety equipment are available and ready to be used. Also, it has been observed that employees use the personal protective equipment. Trainings that were given to the personnel were verified through the training certificates /30/ /31/ /32/ /35/.		

Data variable	Source of Data	Reported value for the project period
Quantity of local employment (ID. 2)	Residence Certificates /25/ Payroll Sheets of Social Security Institution /26/	13 employees (all of them are local employees) <ul style="list-style-type: none"> - 1 plant responsible engineer - 1 wind responsible technician - 4 security personnel - 4 service technician - 3 Operator Technician of Voltage Switchgear Centre
Assessment		
The project activity creates local employment as confirmed through the "Payroll Sheets of Social Security Institution" /26/ and "Residence Certificates" /25/.		

Data variable	Source of Data	Reported value for the project period
Air Quality (ID. 3)	Turkey 2007 National Inventory Report Net electricity generation of the project activity	296.1 tons SO ₂ 63.9 tons NO _x
Assessment		
The SO ₂ and NO _x emission intensities, which are fixed in the registered PDD /1/, are multiplied with the net electricity generation of the project activity. In parallel to the electricity generation SO ₂ emission reduction has been realized as 296.1 tons and NO _x emission reduction has been realized as 63.9 tons during monitoring period.		

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3.4.4 Accuracy of emission reduction calculations

The emission reduction calculations provided in the spreadsheet /3/ have been verified to be correct and in line with the registered PDD /1/.

The emission reductions from the project for the monitoring period from 01/11/2011 to 31/08/2012 (approximately 10 months) as reported in the monitoring report version 1.3 of 02/11/2012 /2/ is equivalent to 36,815 tCO₂e (on average 3,681 tCO₂e per month). According to the registered PDD /1/, the estimated emission reductions are equivalent to 51,955 tCO₂e annually, on average 4,330 tCO₂e per month. The reported averaged emission reductions are 15% lower than the estimated average emission reduction.

The data presented in the monitoring report /2/ were assessed by reviewing in detail project documentation, collection of monitored data, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. Sufficient evidence was presented and verified by RINA for the reported emission reductions as listed in the above Section 3.4.2.2.

3.4.5 Accuracy of the GS indicators of sustainable development

All the documented evidences related to the sustainable monitored parameters such as training records /30/ /31/ /32/ /35/, payroll sheets of social security institution /26/, "Residence Certificates" /25/, bird migration report /36/ are provided as objective evidence.

3.4.6 Management system and quality control

The electricity generation supplied to the grid and electricity consumption from the grid are read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS personnel. The plant staff explained the monitoring procedures during the site visit. As confirmed through the observation, the plant personnel records the electricity generation from the meters and fills the monthly reading protocols. The monthly meter reading protocols are sent to TEIAS. In case of difference between the monthly meter reading protocol and OSOS readings, TEIAS read the meters on project site.

The electricity generation supplied to the grid and the electricity consumption from the grid is stored by PMUM on the web site. The Project owner has an ID and password to access this data on the web site. The project owner can easily access the data by using this portal

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 /1/ and monitoring report /2/ in line with the ACM0002 version 07 /7/.

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4 VERIFICATION AND CERTIFICATION OPINION

RINA Services Spa (RINA) has performed verification of the emission reductions reported for the project activity “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” in Turkey, GS Registration Reference N° 399, for the period 01/11/2011 to 31/08/2012, with regard to the relevant requirements for GS activities.

The project participants of the “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” project are responsible for:

- the preparation of greenhouse gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered project design document version 3.1 of 31/05/2010
- the development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project

It is the responsibility of RINA to express an independent verification opinion about the project’s conformity with the requirements of paragraph 62 of the CDM modalities and procedures, GS requirements and on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by an on-site assessment RINA can confirm that:

- the project has been implemented and operated as per the registered PDD;
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable CDM and GS VER requirements;
- monitoring is in place as per the applied baseline and monitoring methodology;
- monitoring complies with the monitoring plan in the registered PDD;
- the monitoring plan in the registered PDD is as per the applied baseline and monitoring methodology.

It is RINA’s opinion that the GHG emission reductions stated in the monitoring report version 1.3 of 02/11/2012 for the “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” project in Turkey for the period 01/11/2011 to 31/08/2012 are fairly stated. The GHG emission reductions were calculated correctly, the sustainability development indicators were correctly monitored, on the basis of the approved monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity from renewable sources”, version 07 of 30/11/2007 and the monitoring plan contained in the registered PDD.

Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/11/2011 to 31/08/2012 amount to 36,815 tCO₂e.

Year 2011 - 01/11/2011 to 31/12/2011 = 8,252 tCO₂e

Year 2012 - 01/01/2012 to 31/08/2012 = 28,564 tCO₂e

GHG Emission Reductions or Removals	tCO₂e
Baseline Emissions	36,815
Project Emissions	0
Leakage	0
Net GHG emission reductions or removals	36,815



RINA

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Istanbul, 24/10/2012

Isil TIMUROGLU
GS Team Leader
RINA Denizcilik ve Belgelendirme Ltd. Sti.

Genova, 05/11/2012

Laura Severino
Authorized officer signing for the DOE
RINA Services S.p.A.

APPENDIX A

GOLD STANDARD VERIFICATION PROTOCOL

TABLE 1 REQUIREMENTS CHECKLIST

Checklist Question	Reference	MoV ¹	Comments	Draft Conclusion	Final Conclusion	
A Description of Project Activity						
A.1	Title of the project activity, revision number and date of Monitoring Report	/1/ /2/ /10/	DR	The title of the project activity is given as “Alize Çamseki 20.8 MW Wind Farm Project, Turkey” in the Monitoring Report version 01 dated 28/08/2012 /2/ . The title is also in line with the registered PDD /1/ and Validation Report /10/ .		OK
A.2	Is the actual implementation and operation of the proposed project activity in accordance with the project activity in the registered PDD?	/1/ /2/ /11/ /20/ /21/	DR, CC, I	It is confirmed during the site visit performed on 14/09/2012 that project activity is implemented and operated as per the registered PDD /1/ . The starting date of operation is 24/06/2009 as confirmed through the temporary acceptance protocol /21/ . After a test period, the first crediting period of the project activity started on 01/07/2009 as per the registered PDD /1/ and first verification report /11/ . The project activity is a wind power plant includes 10 units of E82 turbines with an output of 2000 kW and 1 unit of E48 turbine with an output of 800 kW. The total installed capacity of the project activity is 20.8 MW. The project boundary in the registered PDD /1/ is in line with the actual project boundary. Generated electricity is supplied to the National Electricity Transmission Grid of Turkey at the 154 kV Ezine transmission line as per the generation license /20/ .		OK
A.3	Methodology applied for the registered project activity	/1/ /7/	DR	The registered project activity applies the approved baseline and monitoring methodology ACM0002 version 07 of 30/11/2007 /7/ .		OK
B Monitoring						
B.1 Monitoring plan						

¹ MoV: DR document review, I interview, CC cross checking

Checklist Question		Reference	MoV ¹	Comments	Draft Conclusion	Final Conclusion
B.1.1	Does the monitoring plan included in the registered GS project activity comply with the applied methodology?	/1/ /2/ /7/	DR, CC	The monitoring plan of the registered GS project activity complies with the applied methodology ACM0002 version 07 /7/ .		OK
B.1.2	Does the monitoring comply with the monitoring plan in the registered PDD?	/1/ /2/ /3/ /4/ /7/	DR, CC	The monitoring complies with the monitoring plan presented in the registered PDD /1/ . The net electricity generation supplied to the grid (ID.1 EGY) as per the ACM0002 version 07 /7/ and registered PDD /1/ . In addition, since the project is developed under Gold standard, the following GS sustainable development parameters are included in the monitoring plan: "Quality and quantity of local employment (ID.2)", "Air Quality (ID.3)"		OK
B.1.3	Do the sustainability indicators included in the monitoring report comply with the minimum contents specified in paragraph 4.1 of the GS toolkit?	/1/ /2/ /3/ /4/ /7/	DR, CC	The project activity is developed and registered under Gold standard Version 01; therefore, GS Toolkit is not applicable to the project activity. However, the sustainability indicators in the monitoring report complies with the sustainability indicators established by the Gold Standard Version 01 rules ("The Gold Standard Validation & Verification Manual for Voluntary Offset Projects" /3/ and "Voluntary Emission Reductions (VERs) Manual for Project Developers" /4/).		OK
B.1.4	Have any changes been made to the key sustainable development indicators?	/1/ /2/ /7/ /10/	DR, CC, I	No change has been occurred to the sustainable development indicators during the monitoring period of 01/11/2011 to 31/08/2012 as confirmed through the site inspection and interviews.		OK
B.2 Data and parameters that are available at validation and that are not monitored						
B.2.1	Which parameters were available at validation and how were they verified?	/1/ /7/	DR, CC	As per the approved methodology ACM0002 version 07, the combined emission factor has been determined using the ex-ante option, so it is not requested to monitor and recalculate the emission factors during this crediting period. The combined emission factor is determined to be 0.635 tCO ₂ /MWh in the registered PDD /1/ and validation report /7/ .		OK
B.3 Data and parameters monitored						

Checklist Question		Reference	MoV ¹	Comments	Draft Conclusion	Final Conclusion
B.3.1	Data/Parameter monitored / Data unit / Description / Source of data to be used / Value data for the monitoring period	/1/ /2/ /3/ /22/ /23/ /24/	DR, CC, I	ID.1 Annual net electricity amount fed to the grid by the project activity (EGy): The electricity generation and electricity consumption is measured in MWh and it is monitored by two electricity meters that are located at the project activity. The net electricity generation and electricity consumption of the project activity is based on the PMUM official records /23/ , which is the basis of invoices. The PMUM records are crosschecked with the invoices /24/ and monthly meter reading protocols /22/ . The net electricity generation during the monitoring period is 57,976.737 MWh.		OK
B.3.2	Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate?	/2/ /16/ /17/ /34/	DR, CC, I	Two electricity meters are installed at the project site. The main meter is Landis+Gyr ZMD402C with serial number 95834743 and the backup meter is Landis+Gyr ZMD402C with serial number 95834742. The meters have the accuracy of 0.2s as confirmed through the Calibration Records /16/ and technical data sheet of meters /17/ . The accuracy class of the meters complies with the "Communiqué for Measurement Devices used in the Electricity Market" /34/ . The electricity meters are sealed by TEIAS as confirmed during the site visit. The description of the meters presented in the monitoring report is in line with the operation as confirmed through the site visit observation.		OK
B.3.3	Are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate?	/1/ /2/ /16/ /18/ /33/	DR, CC, I	TEIAS is responsible for calibration and maintenance of the devices as per the registered PDD /1/ . The project owner has no control on the meters since the meters are sealed by the TEIAS as confirmed during the site visit. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. The meters have been calibrated by the supplier on 02/07/2010 as confirmed through the calibration record /16/ . Also, the meters have been tested on 31/07/2012 by TEIAS as confirmed through the test report /18/ ; however, it is not mentioned in the Monitoring Report. As per the "Regulation of Metering and Testing of	CR-4	OK

Checklist Question	Reference	MoV ¹	Comments	Draft Conclusion	Final Conclusion
			Metering Systems”, the meters shall be calibrated every 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation /33/.		
B.3.4 Is the monitoring frequency adequate for all monitoring parameters? Is it in line with the registered monitoring plan?	/1/ /2/ /7/	DR, CC, I	The electricity generation supplied to the grid and electricity consumption from the grid is monitored continuously by two meters as verified during the site visit. Monitoring frequency is in line with the applied methodology /7/ and registered PDD /1/.		OK
B.3.5 Is the recording frequency adequate for all monitoring parameters? Is it in line with the registered monitoring plan?	/1/ /2/ /7/	DR, CC, I	The electricity generation supplied to the grid, electricity consumption from the grid is recorded monthly. This is in line with the monitoring plan in the registered PDD /1/.		OK
B.3.6 Does data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions?	/2/ /19/	DR, CC, I	<p>At the last day of each month, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS. Electricity Market Balancing and Conciliation body has declared that all readings would be carried out remotely as of 01/02/2012 based on an amendment in the law on Electricity Market Balancing and Conciliation (Clause 81) /19/.</p> <p>The plant staff explained the monitoring procedures during the site visit. As confirmed through the observation, the plant personnel records the electricity generation from the meters and fills the monthly reading protocols. The monthly meter reading protocols are sent to TEIAS. In case of difference between the monthly meter reading protocol and OSOS readings, TEIAS read the meters on project site.</p>		OK
B.4 Monitoring of GS indicators of sustainable development /environmental impacts					

Checklist Question	Reference	MoV ¹	Comments	Draft Conclusion	Final Conclusion
B.4.1	Data/Parameter monitored / Data unit / Description / Source of data to be used / Value data for the monitoring period	/1/ /2/ /3/ /4/ /25/ /26/ /30/ /31/ /32/	<p>DR, CC, I</p> <p>The following GS sustainable development parameters are monitored as per the monitoring plan presented in the registered PDD: “Quality and quantity of local employment (ID.2)”, “Air Quality (ID.3)”</p> <p>ID.2 Quality and quantity of local employment:</p> <p>Quality of local employment: “Relevant health and safety precautions” and “health and safety trainings given to personnel” is identified as quality of local employment parameter.</p> <p>The health and safety precautions are taken as confirmed through the on-site observation and interviews with the employees. The equipment rooms have been seen and it has been observed that health and safety equipment are available and ready to use. Also, it has been observed that employees use the personal protective equipment.</p> <p>The trainings given during monitoring period are listed at the Table 12 of the Monitoring Report. Protection and Relay 154 kV Systems Training and training about ISO4309, crane, control, safety has been given as confirmed through the training certificates /30/ /31/ /32/.</p> <p>However, the content of the training is not clear. Trainings given to the personnel regarding safety and emergency procedures are not clearly defined in the Monitoring Report.</p> <p>Quality of local employment: The number of local employment created by the project is monitored through the monthly salary payment sheets and residence certificate. 13 people are employed by the project activity and all of them are local people as confirmed through the “Payroll Sheets of Social Security Institution” /26/ and “Residence Certificates” /25/.</p> <p>It has been observed during the site visit that there are some minor changes in the organizational structure. The organizational structure should be revised given in the</p>	CAR-4	OK

Checklist Question		Reference	MoV ¹	Comments	Draft Conclusion	Final Conclusion
				<p>Monitoring Report. Please also clarify if have any changes have been occurred in employment during monitoring period.</p> <p>ID.3 Air Quality: The reduction of SO₂ and NO_x emissions is monitored by calculation. The SO₂ and NO_x emission intensities, which are fixed in the registered PDD, are multiplied with the net electricity generation of the project activity. In parallel to the electricity generation SO₂ emission reduction has been realized as 296.1 tons and NO_x emission reduction has been realized as 63.9 tons during monitoring period.</p> <p>Bird Migration: During the previous monitoring period GS has raised a FAR and requested a comprehensive ornithology study by an ornithologist with competent background and expertise. During the site visit, it has been confirmed that an ornithologist has been studying on the project site and observing the bird migration. However, since the study has not finalized yet, the bird migration report could not be provided.</p>		
B.4.2	Is the monitoring in line with the registered monitoring plan?	/1/ /2/	DR, CC, I	The monitoring complies with the monitoring plan presented in the registered PDD. The following GS sustainable development parameters are monitored as per the registered monitoring plan: "Quality and quantity of local employment (ID.2)", "Air Quality (ID.3)"		OK
B.5 Management, quality assurance and quality control						
B.5.1	How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design?	/2/ /7/	DR, I	An on-site inspection has been performed on 14/09/2012 and it is confirmed that the monitoring arrangements in the monitoring plan are feasible within the project design.		OK
B.5.2	Are procedures identified for day-to-day record handling (including what records to keep, storage area of records and how to process performance documentation)?	/2/	DR, I	At the last day of each month, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS.		OK

Checklist Question		Reference	MoV ¹	Comments	Draft Conclusion	Final Conclusion
				The plant personnel records the electricity generation from the meters and fills the monthly reading protocols. The monthly meter reading protocols are sent to TEIAS. In case of difference between the monthly meter reading protocol and OSOS readings, TEIAS read the meters on project site.		
B.5.3	Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?	/2/	DR, I	The generated electricity is measured by two meters that were sealed by TEIAS. The project owner has no control on the meters. The electricity generation supplied to the grid and electricity consumption from the grid is stored by PMUM on the web site. The Project owner has an ID and password to access this data on the web site. The project owner can easily access the data by using this portal. The project owner also archives a hardcopy of these protocols, scanned and stored electronically.		OK
B.5.4	Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of VERs, for this project activity, whichever occurs later?	/1/ /2/ /7/	DR, I	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 /1/ and monitoring report /2/ in line with the ACM0002 version 07 /7/ .		OK

TABLE 2 RESOLUTIONS OF CORRECTIVE ACTION REQUESTS AND CLARIFICATION REQUESTS

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
<p>CAR 1</p> <p>Quality of local employment: The trainings given during monitoring period are listed at the Table 12 of the Monitoring Report. Protection and Relay 154 kV Systems Training and training about ISO4309, crane, control, safety has been given as confirmed through the training certificates /30/ /31/ /32/.</p> <p>However, the content of the training is not clear. Trainings given to the personnel regarding safety and emergency procedures are not clearly defined in the Monitoring Report.</p> <p>Quality of local employment: It has been observed during the site visit that there are some minor changes in the organizational structure. The organizational structure should be revised given in the Monitoring Report. Please also clarify if have any changes have been occurred in employment during monitoring period.</p> <p>Bird Migration: During the previous monitoring period GS has raised a FAR and requested a comprehensive ornithology study by an ornithologist with competent background and expertise. During the site visit, it has been confirmed that an ornithologist has been studying on the project site and observing the bird migration. However, since the study has not finalized yet, the bird migration report could not been provided.</p>	B.4.1	<p>The content of the trainings are revised such that they are more clearly defined.</p> <p>The organizational structure is revised in the Monitoring Report. According to the information provided by the Project owner, there have not been any changes in employment during this monitoring period.</p> <p>The Bird Migration Report is submitted to the DOE.</p>	<p>The trainings are clarified. The given training includes occupational safety limit lists. Also “Fire and Fire Safety Training” is given as confirmed through the training certificates /35/.</p> <p>The organizational structure is revised accordingly.</p> <p>The bird migration report prepared by an Ornithologist dated October 2012 is submitted to the verification team /36/. As per the report, the project activity does not have any negative impact on the birds and RINA accepted the same.</p> <p>The revision of the monitoring report can be considered satisfactory, thus the <u>CAR 1 is closed.</u></p>
<p>CR 1</p> <p>The meters have been tested on 31/07/2012 by</p>	B.3.3	<p>The information about the periodical test by TEIAS is included in the report.</p>	<p>The TEIAS testing is included to the monitoring report. The revision of the monitoring report can be considered satisfactory, thus the <u>CR 1 is</u></p>

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
TEIAS as confirmed through the test report /18/; however, it is not mentioned in the Monitoring Report.			<u>closed.</u>

TABLE 3 FORWARD ACTION REQUEST

Forward action request	Reference to Table 1	Response by project participants Verification conclusion
<p>FAR 1</p> <p>FAR 2 raised by DOE during the first monitoring period is still open since the wind energy plants are under consideration by the Turkish General Staff. The effects of wind turbines to the radar signal has being researched and hos not finalized yet, therefore, this FAR shall be verified during the 4th monitoring period.</p>		