



RINA

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Final

“Sah 93.0 Wind Power Plant”
in
Turkey

Monitoring period: 15/11/2011 to 31/10/2013

Report N° 2014-TQ-03-MD

Revision N° 1.1 Aa



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Project Title: Sah 93.0 MW Wind Power Plant	Country: Turkey	Estimated VERs (tCO₂e): 381,016
GS Registration Reference N°: GS 905	Monitoring period: 15/11/2011 to 31/10/2013	Certified VERs (tCO₂e): 335,595
Client: Galata Wind Enerji A.S.	Client contact: Cem Cagri Levent	
Report No.: 2014-TQ-03-MD	Revision: 1.1 Aa	Date of this report: 20/05/2014
Approved by (Final Report – Authorized officer signing for the DOE):  Laura Severino		Date of approval: 21/05/2014

Methodology

Number: ACM0002	Version: 12.1.0 of 26/11/2010	Title: Consolidated baseline methodology for grid-connected electricity from renewable sources	Scale Large	SS(s): 1
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RINA Services S.p.A. (RINA), commissioned by Galata Wind Enerji A.S., has verified the greenhouse gas emission reductions reported for the project activity “Sah 93.0 MW Wind Power Plant” in Turkey, GS Registration Reference N° 905, for the period 15/11/2011 to 31/10/2013, with regard to the relevant requirements for 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 Bureau Veritas (validation report N° TURKEY-VAL/CER.1391.10.C45/2012, version 05 issued on 26/09/2013) and it was registered under the GS registration reference N° 905.

The GHG emission reductions were calculated on the basis of the approved methodology ACM0002, version 12.1, “Consolidated baseline methodology for grid-connected electricity from renewable sources” of 26/11/2010 and the monitoring plan included in the registered Project Design Document, version 11 of 18/03/2013.

In conclusion, it is RINA's opinion that the project activity “Sah 93.0 MW Wind Power Plant”, in “Turkey, as described in the Monitoring Report version 3 of 05/05/2014, 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 12.1.0 of 26/11/2010. Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 15/11/2011 to 31/10/2013 amount to 335,595 tCO₂e.

Baseline Emissions	335,595 tCO ₂ e
Project Emissions	0 tCO ₂ e
Leakage	0 tCO ₂ e
Net GHG emission reductions/removal	335,595 tCO ₂ e

Work carried out by:

Tugce KIRATLI



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Unrestricted distribution

Work verified by (Final Report)

Rita Valoroso



Keywords:

Climate Change, Kyoto Protocol, Verification, Gold Standard



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Abbreviations

BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CDM-PCP	Clean Development Mechanism Project Cycle Procedure
CDM-PS	Clean Development Mechanism Project Standard
CDM-VVS	Clean Development Mechanism Validation and Verification Standard
CER(s)	Certified Emission Reduction (s)
CH ₄	Methane
CR	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
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
LSC	Large scale
MoV	Means of Verification
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
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)
SSC	Small Scale
TEIAS	Turkish Electricity Transmission Company (Turkiye Elektrik Iletim A.S.)
UNFCCC	United Nations Framework Convention on Climate Change
VERs	Verified Emission Reduction(s)

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Appendix A: Gold Standard Verification Protocol

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1 INTRODUCTION

Galata Wind Enerji A.S. has commissioned RINA to carry out the verification and certification of emission reductions reported for the registered “Sah 93.0 MW Wind Power Plant” project in Turkey, GS Registration Reference N° 905, for the period 15/11/2011 to 31/10/2013.

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 “Sah 93.0 MW Wind Power Plant” project in Turkey for the period 15/11/2011 to 31/10/2013.

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.

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.

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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 3 of 05/05/2014 [/3/](#), the emission reduction calculations provided in the form of a spreadsheet “SAH-RES_Verification_v1-emission reduction calculation-16-01-2014.xlsx” version 1.0 of 16/01/2014 [/9/](#), the approved baseline and monitoring methodology ACM0002 version 12.1 of 26/11/2010 [/7/](#) and all the documentation provided to support the monitoring period [/1 – 60/](#) 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, the Passport version 1.0 of 02/09/2013 [/2/](#) and the validation report revision 05 of 26/09/2013 [/8/](#) for the project, were reviewed.

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

/1/	GAIA CF: GS-PDD for “Sah 93.0 MW Wind Power Plant” in Turkey, version 11 of 18/03/2013
/2/	GAIA CF: GS-Passport for “Sah 93.0 MW Wind Power Plant” in Turkey, version 01 of 02/09/2013
/3/	GAIA CF: Monitoring Report for “Sah 93.0 MW Wind Power Plant” in Turkey, version 1 of 16/01/2014 GAIA CF: Monitoring Report for “Sah 93.0 MW Wind Power Plant” in Turkey, version 2 of 06/02/2014 GAIA CF: Monitoring Report for “Sah 93.0 MW Wind Power Plant” in Turkey, version 3 of 05/05/2014
/4/	Gold Standard Foundation: Gold Standard Requirements, version 2.2 of 01/06/2012
/5/	Gold Standard Foundation: Gold Standard Toolkit, version 2.2 of 01/06/2012
/6/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard, version 05.0 of 04/10/2013
/7/	CDM Executive Board: Baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity from renewable sources”, version 12.1.0 of 26/11/2010
/8/	Bureau Veritas: Validation Report for “Sah 93.0 MW Wind Power Plant” No. TURKEY-VAL/CER. 1391.10.C45/2012, revision 05 of 26/09/2013
/9/	GAIA CF: Emission Reduction Calculation Spreadsheet “SAH-RES_Verification_v1-emission reduction calculation-16-01-2014.xlsx” version 1.0 of 16/01/2014
/10/	CDM Executive Board: Guideline for Completing the Monitoring Report Form, version 04.0 of 04/10/2013
/11/	CDM Executive Board: Methodological Tool “Tool to calculate the emission factor for an electricity system”, version 02.0.0 of 16/10/2009
/12/	CDM Executive Board: Monitoring Report Form (F-CDM-MR), version 03.2 of 05/11/2013
/13/	Vestas: General Specification of Vestas V90–3.0 MW VCS 50 Hz, submitted on 17/01/2014
/14/	Trade Gazette of Turkey for Adress Change of Galata Wind Enerji A.S. No:8110 of 12/07/2012
/15/	Galata Wind Enerji A.S.: The Gear Changes of All Turbines for the Monitoring Period of 15/11/2011 to 31/10/2013
/16/	TEIAS: First Index Protocol for all the Electricity Meters of 28/04/2011
/17/	TEIAS: System Usage Agreement of 17/01/2011

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/18/	Petrol Ofisi A.S.: Receipt for Fuel Oil from 15/11/2011 to 31/10/2013
/19/	Cement Factory of Bursa: National Waste Transportation Form, No:0322602 of 16/04/2012
/20/	Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti and Galata Wind Enerji Ltd. Sti.: Agreement of Hazardous Waste Management of 19/04/2012
/21/	Dagarcik Optik Cihazlar Tic. Ve San. Ltd. Sti.: Optical Equipment Purchase Invoice, No:1651 of 18/12/2010
/22/	Galata Wind Enerji Ltd. Sti.: A Statement for Unused Material Grant to General Directorate of Nature Conservation and National Parks of 20/04/2011
/23/	TEIAS: Attendance List of the Operation Technicians for Substation Training of 08/07/2013 TEIAS: Attendance List of the Operation Technicians for Substation Training of 16/01/2013
/24/	Vestas: General Safety and Risk Awareness Training of 25/08/2011
/25/	Kaya Training: Training Certificate of Working at Height and Turbine Evacuation of 03-05/04/2012 (Huseyin BALCI) Kaya Training: Training Certificate of Working at Height and Turbine Evacuation of 03-05/04/2012 (Metin CIRKONA) Kaya Training: Training Certificate of Working at Height and Turbine Evacuation of 03-05/04/2012 (Servet Mahir ERGUL) Kaya Training: Training Certificate of Working at Height and Turbine Evacuation of 03-05/04/2012 (Taner AKKAN) Kaya Training: Training Certificate of Working at Height and Turbine Evacuation of 03-05/04/2012 (Zafer OZMEN)
/26/	Bandirma Yangin Sondurme: Attendance List of Basic Fire Training (18 employees) of 24/09/2013
/27/	Pictures of the Basic Fire Training of 24/09/2013
/28/	Market Financial Conciliation Center (PMUM): All Monthly Electricity Records within the Monitoring Period (from 15/11/2011 to 31/10/2013)
/29/	Turkish Electricity Transmission Company (TEIAS): Counter Balancing Unit Evaluation Forms (OSF Forms) for Monthly Meter Readings within the Monitoring Period (from 15/11/2011 to 31/10/2013)
/30/	Energy Market Regulatory Authority: Communiqué for Measurement Devices used in the Electricity Market of 22/03/2003
/31/	The Ministry of Trade and Industry: Regulation of Metering and Testing of Metering Systems of 24/07/1994
/32/	The Report of the Project's Impact on Wildlife, written by Sagdan BASKAYA of 11/10/2009
/33/	The Report of the Project's Impact on Wildlife, written by Levent TURAN of 02/01/2009
/34/	The Report of the Project's Impact on Wildlife, written by Idris OGURLU of 19/10/2009
/35/	The Ornithology Report, written by Levent TURAN of August 2013
/36/	Energy Market Regulatory Authority: Generation License numbered EU/1565-7/1139 of 10/04/2008 (last amendment on 21/06/2012)
/37/	The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 19/05/2011 (for 21 Turbines) The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 03/06/2011 (for 9 Turbines) The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 29/07/2011 (for 1 Turbines) The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 24/05/2013 (for 4 Turbines)
/38/	Kaya Taahhut Ticaret Harfiyat Insaat: Invoices of Sewage Truck, No:96351 of 30/11/2012

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/39/	Water and Sanitation Directorate: Permit to Discharge Wastewater of 02/05/2012
/40/	Egetest Cevre Olcum ve Kalibrasyon Hizmetleri San. Ve Tic. Ltd. Sti.: Noise and Vibration Measurement of 29/07/2011
/41/	Social Security Institution: Recruitment Statement for 5 employees, submitted on 17/01/2014
/42/	Staff Personnel Data List, submitted on 17/01/2014
/43/	Social Security Institution: Payroll Sheets of all Employees of September and October 2013
/44/	Pictures for Road Watering and Roads to be Flattened by Rollers, submitted on 17/01/2014
/45/	CDM Executive Board: Methodological Tool "Tool for the demonstration and assessment of additionality", version 05.2 of 26/08/2008
/46/	The Gold Standard Foundation: Sah 93.0 MW Wind Power Plant Project, Turkey (GS 905) 8-week Registration Review Period Document of 15/11/2013
/47/	TEIAS: Single-Line Diagram for Gobel Substation of 05/05/2011
/48/	Kesir Muhendislik: Calibration of the Electricity Meters (Serial no: 419695-419696-419697-419698) of 13/04/2011
/49/	Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti: National Waste Transportation Form, No:99748 of 18/10/2012 Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti: National Waste Transportation Form, No:98952 of 18/10/2012 Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti: National Waste Transportation Form, No:275788 of 21/05/2013 Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti: National Waste Transportation Form, No:275789 of 21/05/2013
/50/	Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti: Invoice of Hazardous Waste Services, No: 23559 of 18/10/2012 Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti: Invoice of Hazardous Waste Transportation, No: 23560 of 18/10/2012 Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti: Invoice of Hazardous Waste Services, No: 12169 of 21/05/2013 Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti: Invoice of Hazardous Waste Transportation, No: 12168 of 21/05/2013
/51/	Photos of Excavated Soil, submitted on 03/02/2014
/52/	Galata Wind A.S.: Electricity Generation for Internal Control of November 2011, August 2012, October 2013
/53/	Map of the Turbine Location, submitted on 03/02/2014
/54/	TEIAS: Test Reports of the Electricity Meters of 16/04/2013 (for all the Electricity Meters with a serial no: 419695-419696-419697-419698)
/55/	General Directorate of Nature Conservation and National Parks: The Correspondence of Receipt of the Donation of 29/07/2011
/56/	The Correspondance about Installing the Remote Reading Device of 06/10/2011
/57/	Department of Water Affairs and Forestry: The Correspondance about Employees in Wildlife Rescue Center of 19/08/2013
/58/	The Correspondance between Gold Standard and GAIA Carbon Finance about Project Registration of 15/11/2013
/59/	The Correspondance between General Directorate of Nature Conservation and National Parks and Galata Wind Enerji A.S. about the Employment of 13/06/2011
/60/	GAIA CF: Excel Sheet for Calculating the Estimated Emission Reduction, submitted on 10/02/2014

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2.2 On-site assessment

On 03/02/2014, RINA visited Bandirma District of Balıkesir and Karacabey District of Bursa in Turkey. During the on-site assessment of the project, 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, to prevent violation or the risk of violating a safeguarding principle of the “Do No Harm” Assessment or to “neutralize” a Sustainable Development Indicator.

The project area was visited on 03/04/2014. The project employees were interviewed about the implementation status of the project, monitoring equipment and operation, generated electricity, dust emission, excavated soil, noise pollution, hazardous wastes, road conditions, location of the turbines, plantation, wastewater disposal, warning signs, shoot a film and employment of workers for Rescue Centre of the project activity.

In addition, the stakeholders were visited in Dedeoba Village. They were interviewed about the benefit of the project to the village, noise emissions, bird death, dust emissions, road conditions, fauna and flora, local employment and the complaints for the project activity. The feedbacks are explained below.

According to the interviews, it was confirmed that during the construction, the level of the dust and noise emissions were not affected too much to the village. Also, it was observed and the stakeholders were interviewed about the new roads. They indicated that the new roads of the village are more useful for driving. However, after the roads were flattened with the excavation soil, there are two ditches in right and left of the road for water flowing and they could not pass their car to the opposite site and they could not reach the way that they use for leading into the forest.

Also, the stakeholders were confirmed that the project activity has no negative effect for the fauna and flora. During on site visit, one of the employees' father was interviewed and he confirmed the local employment hired from surrounding villages.

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

	Date	Name and Role	Organization	Topic
/a/	03/02/2014	Funda OZDEMIR <i>Carbon Consultant</i>	GAIA CF	Implementation status of the project Monitoring equipments and operation
/b/	03/02/2014	Cem Cagri LEVENT <i>Carbon Specialist</i>	Galata Wind Enerji A.S.	Generated Electricity Monitoring of Gold Standard Parameters
/c/	03/02/2014	Taner AKKAN <i>Plant Engineer</i>	Galata Wind Enerji A.S.	Dust Emission Excavated Soil Noise Pollution Hazardous Wastes
/d/	03/02/2014	Huseyin BALCI <i>Operation Technician</i>	Galata Wind Enerji A.S.	Road Conditions Location of the Turbines Plantation
/e/	03/02/2014	Servet Mahir ERGUL	Galata Wind Enerji A.S.	Wastewater Disposal Warning Signs

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		<i>Operation Technician</i>		Shoot a film Employment of Workers for Rescue Centre
/f/	03/02/2014	Recep KOKEN <i>Villager</i>	Dedeoba Village	Benefit of the project to the village
/g/	03/02/2014	Hamdi YAGDI <i>Villager</i>	Dedeoba Village	Noise Emissions Bird Death
/h/	03/02/2014	Hasan CETIN <i>Villager</i>	Dedeoba Village	Dust Emissions Road Conditions
/i/	03/02/2014	Senol KOSE <i>Villager</i>	Dedeoba Village	Fauna and Flora Local Employment Complaints
	03/02/2014	Hidayet TOPCU <i>Department Manager</i>	Hunting and Wildlife Department	Interview about the wildlife

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	Conclusion
Checklist questions organized in five 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 and CR see the definitions above. OK is used if the information and evidence provided is adequate to demonstrate compliance with GS VER/CDC 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.

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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.

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	Type of involvement*					
			DR	SV	REP	TE	TR	TER
Team Leader	Kiratli	Tugce	X	X	X	X	-	-
GS Verifier	Kiratli	Tugce	X	X	X	X	-	-
Technical Expert (TA 1.2)	Kiratli	Tugce	X	X	X	X	-	-
Technical Reviewer	Valoroso	Rita					X	X

*DR: Document Review; SV: Site Visit/Interview; REP: Reporting; TE: Technical Expert in Technical Area; TR: Technical Review; TER: Technical Expert in Technical Area for Technical Review.

3 VERIFICATION FINDINGS

The findings of the verification related to the monitoring period from 15/11/2011 to 31/10/2013 as documented and described in the monitoring report version 3 of 05/05/2014 [/3/](#) 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)	Galata Wind Enerji A.S.		
Project Title	Sah 93.0 MW Wind Power Plant		
Location of the project	Bandirma District of Balikesir and Karacabey District of Bursa in Turkey		
Methodology(ies)	ACM0002, "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 12.1 of 26/11/2010 /7/		
Sectoral Scope(s)	1	RINA's Technical Area(s)	1.2
Registered PDD	Revision 11 of 18/03/2013		
Date of registration	15/11/2013	GS Registration Reference N°	905

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Starting date of the crediting period	15/11/2011
Project's crediting period	15/11/2011 – 14/11/2018
Monitoring period	15/11/2011 to 31/10/2013
Project documentation link	http://mer.markit.com/br-reg/public/project.jsp?project_id=103000000002024

The project activity is a wind power plant consists of 35 Vestas V90 wind turbines, each has 3 MW capacities making the total installed capacity of 105 MW/93 MWe as confirmed through the Generation License /36/. The generated electricity is fed to the national grid. The estimated net electricity production is 305,775 MWh and the annual emission reductions are estimated to be 185,636 tCO₂e per year.

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 the validation report /8/ and GS Foundation 8-week issuance review period document /46/, 5 FARs were raised during the 1st verification period.

FAR#1: The Verifying DOE shall check the electricity meters installation date and initial calibration dates during the first verification. (GS Feedback)

The electricity meters were installed on 28/04/2011 as confirmed through the First Index Protocol /16/ given by TEIAS. The initial calibration of the electricity meters were performed on 13/04/2011 as confirmed through the Calibration Reports /48/ given by Kesir Muhendislik.

Hence, this FAR was closed.

FAR#2: The Verifying DOE shall check at the time of verification if the local labour is employed. (GS Feedback)

According to interviews with the stakeholders, it is confirmed that the project activity hired the local employment from Dedeoba, Cakil and Yesildere Villages. Also, Senol Kose that we interviewed during on site-visit is a father of one of the local employment.

Hence, this FAR was closed.

FAR#3: The distance between the turbines should be monitored first verification period. The distance between the turbines is defined as 250-300m at the protocol between the project owner and Ministry of Environment and Forestry. The distance between the neighboring project ATARES-1 and SAHRES should be 750m., and should be kept clear throughout the project site in a north-south direction, as specified by the same protocol, item 1. (Validation Report)

According to the interviews with the authorized of the company and the site observation, it was confirmed that the neighbouring project ATARES-1 is rejected by EMRA. Also, all the turbines are located with a sufficient distance as confirmed through the map of the located turbines /53/. When analysing the map, it could be seen that, every circle includes only one turbine. The circle represents necessary distance and the pitch for the location of the turbines.

Hence, this FAR was closed.

FAR#4: Realization of informative meetings organized in collaboration with the Bursa Provisional Directorate of Environment and Forestry will be monitored through relevant records of such meetings (e.g. documentation, minutes, photos, participant lists, etc.) (Validation Report)

There is no documentation, photos or participant lists for the meeting organized with the Bursa Provisional Directorate of Environment and Forestry.

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Hence, this FAR was not closed.

FAR#5: Compliance with items 11 and 13 of the protocol signed between Galata Wind Enerji Ltd. Şti. And Bursa Provisional Directorate of Environment and Forestry, Nature Protection and National Parks Administration, signed by the PP on 08/02/2010, will be monitored through the applicable records. (e.g. for item 11: records of training, research, symposiums, relevant records of payments, receipts for such participation, etc.; e.g. for item 13: social security records, official evaluation correspondence of the Nature Protection and National Parks Administration) (Validation Report)

For the 5 Nature Protection and National Parks employees, the Recruitment Statements [/41/](#) was provided to the verification team. However no training was performed for the employees during this monitoring period. Payroll Sheets [/43/](#) for September and October 2013 and the correspondences [/59/](#) were also provided for all the employees work in Rescue Centre.

Hence, this FAR was not closed and a new FAR is raised.

3.3 Monitoring Report

The Monitoring Report for the project activity “Sah 93.0 MW Wind Power Plant”, in Turkey, version 3 of 05/05/2014 and previous versions were submitted by the Galata Wind Enerji A.S. has been the basis for the verification process.

The main changes between the MR version 1 of 16/01/2014 at the starting date of the verification activity and the MR version 3 of 05/05/2014 submitted for registration are the following:

Section of the MR	Description and reason for changing the information in that section
First Page	The title of the project activity and estimated emission reduction of this monitoring period was revised as per the registered PDD.
A.1. Purpose and general description of project activity	The transmission line of the project activity is added.
A.5. Crediting period of project activity	Crediting period of project activity was revised.
C. Description of monitoring system	The calibration and the test dates of the electricity meters were added.
D.1. Data and parameters fixed ex ante or at renewal of crediting period	The name of the parameter “ $EF_{Grid,CM,y}$ ” was revised as per the methodology and tool.
D.2. Data and parameters monitored	The description, unit, Measuring/Reading/Recording frequency and QA/QC procedures of the parameter “ $EG_{facility,y}$ ” was revised. The way of monitoring “How, When, By Who” of the indicators have been added to the monitoring report.

RINA confirms that the above MR is based on the currently valid MR template [/12/](#) and is completed in accordance with the applicable guidance document [/10/](#).

3.4 Project implementation

Actual implementation of the registered project activity

It was verified during the site visit 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/](#). As per the GS Requirement [/4/](#), “For VER project activities proceeding under the regular project cycle, the start date of the Gold Standard Crediting Period shall be the date of start of operation or a maximum of two years prior to Gold Standard registration, whichever occurs later”. Therefore, the starting date of the

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operation is 19/05/2011 as confirmed through the Temporary Acceptance Protocol [/37/](#) and the starting date of the crediting period is 15/11/2011 as confirmed through the mail for registration [/58/](#).

All turbines have been commissioned in four phases. The first commissioning phase covers 21 turbines which were commissioned on 19/05/2011, the second commissioning phase covers 9 turbines which were commissioned on 03/06/2011, the third commissioning phase covers 1 turbines which were commissioned on 24/05/2013 as confirmed through the Temporary Acceptance Protocol [/37/](#).

The project activity consists of 35 Vestas V90 wind turbines, with a 3 MW capacities and making the total installed capacity of 105 MW / 93 MWe as confirmed through the Generation License [/36/](#). The technical details of the wind turbines given as a brochure [/13/](#) comply with the registered PDD [/1/](#) and monitoring report [/3/](#). It is confirmed during the site visit that all installed turbines are Vestas V90 turbine, each with an output of 3 MW. The project boundary in the registered PDD [/1/](#) is in line with the actual project boundary. The generated electricity is supplied to the National Electricity Transmission Grid of Turkey via 154 kV Gobel Transmission Line as confirmed through the Generation License [/36/](#).

Based on the onsite 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/](#).

Post registration changes

As per the GS Requirement [/4/](#), "For VER project activities proceeding under the regular project cycle, the start date of the Gold Standard Crediting Period shall be the date of start of operation or a maximum of two years prior to Gold Standard registration, whichever occurs later". Therefore, the starting date of the operation is 19/05/2011 as confirmed through the Temporary Acceptance Protocol [/37/](#) and the starting date of the crediting period is 15/11/2011 as confirmed through the mail for registration [/58/](#).

3.5 Methodology for determining Emission Reductions.

According to the applied methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity from renewable sources" [/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 (tCO_2e/yr)

PE_y = Project emissions in year y (tCO_2e/yr)

L_y = Leakage emissions in year y (tCO_2e/yr)

The baseline emissions include the CO_2 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 CO_2 emission factor for grid connected power generation in year.

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$$

Where:

$EG_{PJ,y}$ = Net electricity supplied to the grid (MWh)

$EF_{grid,CM,y}$ = Combined margin grid emission factor (tCO_2/MWh)

The project emissions are assumed to be zero as per the ACM0002 [/7/](#) since the project is a renewable energy project as defined in the registered PDD [/1/](#) and validation report [/8/](#). The leakage emissions are assumed to be zero as per the ACM0002 [/7/](#) as defined in the registered PDD [/1/](#). Since the project and leakage emissions are zero, the emission reduction equals to baseline emissions.

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3.5.1 Compliance of the monitoring plan with the monitoring methodology and applicable methodological tools

The registered project activity applies the approved baseline and monitoring methodology ACM0002 version 12.1.0 [/7/](#). RINA confirms that the monitoring plan in the registered PDD [/1/](#) complies with the applied CDM methodology and the sustainability indicators established by the Appendix D of the Gold Standard requirements [/4/](#).

3.5.2 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 in a conservative manner. An approved CDM methodology, ACM0002 version 12.1 has been applied in order to determine the baseline scenario and calculate emission reductions.

3.5.3 Compliance of monitoring with monitoring plan

The monitoring plan presented in the monitoring report version 3 of 05/05/2014 and the previous versions for the period of 15/11/2011 to 31/10/2013 (both days included) [/3/](#) complies with the monitoring plan in the registered PDD [/1/](#).

The only monitoring parameter is “Quantity of net electricity generation supplied by the project plant/unit to the grid in year y ($EG_{\text{facility},y}$) as per the registered monitoring plan presented in the registered PDD [/1/](#). The parameter is monitored continuously by four electricity meters that are located at the project site. Four electricity meters are installed at the project site. For Transformers-1, the main meter is ELSTER A1500 with serial number 00419695 and the back-up meter is ELSTER A1500 00419696 in the project activity. For Transformers-2, the main meter is ELSTER A1500 with serial number 00419697 and the back-up meter is ELSTER A1500 00419698 in the project activity.

The meters have the accuracy of 0.5s as confirmed through the First Index Report [/16/](#), given by TEIAS. The accuracy class of the meters complies with the “Communiqué for Measurement Devices used in the Electricity Market” [/30/](#). The electricity meters are sealed by TEIAS as confirmed during the site visit. TEIAS is responsible for calibration and maintenance of the devices. The project owner has no control on the meters since the meters are sealed by the TEIAS. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. The electricity meters were installed on 28/04/2011 as confirmed through the First Index Protocol [/16/](#) given by TEIAS. The initial calibration of the electricity meters were performed on 13/04/2011 as confirmed through the Calibration Reports [/48/](#) given by Kesir Muhendislik. The recalibration of these meters will be done in line with the equipment requirements and through the period defined by national metrology institutes country by country and for Turkey this period is defined as 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation [/31/](#). 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 through Automatic Meter Reading System by the TEIAS personnel. Also the monthly official electricity metering reports (OSF Forms) [/29/](#) are prepared and send to the company. All protocols [/28/](#) [/29/](#) within this monitoring period was checked during the site visit. The PMUM records [/28/](#) are crosschecked with the monthly official electricity metering reports (OSF Forms) [/29/](#) during this monitoring period. The Monthly Meter Reading Protocols, PMUM records and emission reduction calculation spreads sheet [/9/](#) are in line. During the monitoring period of 15/11/2011 to 31/10/2013 (both days included) the net electricity supplied to the grid amount to 552,784 MWh and the emission reductions to 335,595 tCO₂e.

According to the monitoring plan in the registered PDD [/1/](#) and in the monitoring report version 3 of 05/05/2014 [/3/](#), the following sustainability parameters are monitored: “Air Quality”, “Water Quality and Quantity”, “Soil Condition”, “Other Pollutants”, “Biodiversity”, “Quality of Employment”, “Quantitative Employment and Income Generation”, “Technology transfer and technological self-reliance”, “Vehicle donation to the National Parks of Ministry of Environment and Forestry”, “Employment of workers for Rescue Centre, and Pheasant Production Station, and a PR expert”, “Shooting of a documentary film biannually”, “Waste Management”.

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The following parameters have been monitored in accordance with the monitoring plan in the registered PDD [/1/](#) and the monitoring report [/3/](#).

3.5.3.1 Data and parameters fixed ex-ante or at renewal crediting period

DATA/PARAMETER	Source of data	Reported value for the project period	Assessment/Observation
Combined Margin Emission Factor	TEIAS statistics	0.6071 tCO ₂ /MWh	As per the approved methodology ACM0002 version 12.1.0, 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 0.6071 tCO ₂ /MWh in the registered PDD /1/ and validation report /8/ .
Leakage	TEIAS statistics	0 tCO ₂	As per the approved methodology ACM0002 version 12.1.0, the leakage emissions were neglected.
Project Emissions	TEIAS statistics	0 tCO ₂	As per the approved methodology ACM0002 version 12.1.0, the project emissions were neglected.

3.5.3.2 Sampling plan

Not applicable.

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3.5.3.3 Data and parameters monitored ex-post

DATA/PARAMETER	EG _{facility.v}
Data Unit	MWh/yr
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y
Source of data to be used	PMUM (Market Financial Settlement Center) records and Monthly Meter Reading Records of main meters are cross-checked
Value data for the monitoring period	552,784 MWh
Measuring and reporting frequency; recording procedure.	Continuously monitoring and monthly recording
Type of monitoring equipment and its accuracy	Four electricity meters are installed at the project site. For Transformers-1, the main meter is ELSTER A1500 with serial number 00419695 and the back-up meter is ELSTER A1500 00419696 in the project activity. For Transformers-2, the main meter is ELSTER A1500 with serial number 00419697 and the back-up meter is ELSTER A1500 00419698 in the project activity. The meters have the accuracy of 0.5s as confirmed through the First Index Report /16/, given by TEIAS.
Calibration frequency/interval	TEIAS is responsible for calibration and maintenance of the devices as per the registered PDD. The project owner has no control on the meters since the meters are sealed by the TEIAS. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. During this monitoring period no discrepancy was occurred. The electricity meters were installed on 28/04/2011 as confirmed through the First Index Protocol /16/ given by TEIAS. The initial calibration of the electricity meters were performed on 13/04/2011 as confirmed through the Calibration Reports /48/ given by Kesir Muhendislik. The recalibration of these meters will be done in line with the equipment requirements and through the period defined by national metrology institutes country by country and for Turkey this period is defined as 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation /31/. During on-site assessment, it was confirmed that the meters are in place and functions well. During the monitoring period, no brake down has been recorded.
How were the values in the monitoring report verified and cross-checked?	The net electricity supplied to the grid has been crosschecked with the PMUM Screenshots /28/ .
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions?	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 by the TEIAS personnel. Also the monthly official electricity metering reports (OSF Forms) /29/ are prepared and send to the



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	company. All protocols /28/ /29/ within this monitoring period was checked during the site visit. The PMUM records /28/ are crosschecked with the monthly official electricity metering reports (OSF Forms) /29/ during this monitoring period. The plant personnel records the electricity generation from the meters every day and the responsible engineer checks the figures regularly. In the case of difference between the data, TEIAS will be informed. 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.
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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3.5.3.4 Gold Standard sustainability monitored parameters

Data variable	Source of Data	Reported value for the project period
Air Quality Dust emissions during the construction phase	- On-site observation - Pictures	No dust pollution
Assessment		
The parameter is monitored with on-site observation continuously. It was confirmed through the pictures /44/ and the interviews with the stakeholders that no dust emission was affected to the village.		

Data variable	Source of Data	Reported value for the project period
Water Quality and Quantity The amount of discharged wastes to the water resources:	- Truck invoice - Water and Sanitation Directorate Permit	The waste water is stored in a septic tank on site and disposed of periodically with vacuum.
Assessment		
The parameter is monitored continuously by site visit and also could be checked with the sewage truck invoice /38/ and the permit given by Water and Sanitation Directorate /39/. It is confirmed that the waste water is stored in a septic tank on site and disposed of periodically with vacuum.		

Data variable	Source of Data	Reported value for the project period
Soil Condition The use of storage areas for excavated earth and the removal of excavated earth	- On-site observation - Pictures	Roads are flattened
Assessment		
The parameter is monitored during and after the construction by on-site observation. It is confirmed during the site visit that all the excavation was used for filling the turbine locations and flattening the service roads. The reference pictures /51/ shows that bumpy roads are flattened.		

Data variable	Source of Data	Reported value for the project period
Other Pollutants - The noise level in the region after the project implementation - Road conditions	- Noise and Vibration Measurement Report - Pictures - Interviews with locals	- Noise measurement is under the level - Roads' conditions were improved after the construction.
Assessment		
<u>The noise level in the region after the project implementation:</u> The parameter is monitored by noise level measurement if there is a complaint. Noise and Vibration Measurement Report /40/ -performed by an accredited company- was submitted to the verification team. It is confirmed that the noise level is under the legal limits. Also, local stakeholders were interviewed during on site visit and no negative feedback was received. They also confirmed that the village is so far from the project activity and noise emission is inaudible. <u>Road conditions:</u> The parameter is monitored by checking the condition of road during the complete construction phase. It could be confirmed that the roads' conditions were improved after the construction as per the pictures /44/, site visit observation and interview with stakeholders.		

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Data variable	Source of Data	Reported value for the project period
Biodiversity • Design and location of the turbines • Plantation and landscaping activities • Warnings signs and pictures	• Ministry of Environment and Forestry Protocol • Turbine location map • Interviews with the stakeholders and the Department Manager of Hunting and Wildlife • Expert reports	• the neighbouring project ATARES-1 is rejected by EMRA • The turbines are located with a sufficient distance • No injury or deaths near the project area
Assessment <u>Design and location of the turbines:</u> The parameter is monitored once after the implementation by checking the painting, lightening and location of the turbines. As per the Validation Report /8/, "The distance between the turbines should be monitored first verification period. The distance between the turbines is defined as 250-300m at the protocol between the project owner and Ministry of Environment and Forestry. The distance between the neighbouring project ATARES-1 and SAHRES should be 750m., and should be kept clear throughout the project site in a north-south direction, as specified by the same protocol, item 1. According to the interviews with the authorized of the company and the site observation, it was confirmed that the neighbouring project ATARES-1 is rejected by EMRA. Also, all the turbines are located with a sufficient distance as confirmed through the map of the located turbines /53/. <u>Plantation and landscaping activities:</u> The parameter is monitored after the construction by site visits. During on site visit, the PP is mentioned that the plantation for the tree cutting (10,000 trees) will be performed by the Directorate of Forestry. Therefore, a FAR is raised to monitor the parameter in the next verification. <u>Warnings signs and pictures:</u> The parameter is monitored during the verification by site visits/ injury or deaths records for animals. According to the interviews with the stakeholders and the Department Manager of Hunting and Wildlife, there is no injury or deaths near the project area. Also, expert reports /32/ /33/ /34/ /35/ was provided to the verification team.		

Data variable	Source of Data	Reported value for the project period
Quality of Employment Number of employees to be trained/certified for the construction and operation of the plant	Trainings and attendance lists	22 employees participated to the trainings.
Assessment <u>Number of employees to be trained/certified for the construction and operation of the plant:</u> The parameter is monitored by checking the training records. All the trainings and the attendance lists /23/ /24/ /25/ /26/ /27/ during this monitoring period were provided to the verification team.		

Data variable	Source of Data	Reported value for the project period
Livelihood of the Poor Household income generated from the project	• SGK Records • Interviews with locals	• 27 employees were hired. • The project activity hired the local employment from Dedeoba, Cakil and Yesildere Villages
Assessment <u>Household income generated from the project:</u> The parameter is monitored continuously by SGK Records. According to the SGK Records of September and October 2013 /43/, 22 employees were hired for operation phase and 5 employees were hired for the Rescue Centre. According to interviews with the stakeholders, it is confirmed that the project activity hired the local		

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employment from Dedeoba, Cakil and Yesildere Villages. Also, Senol Kose that we interviewed during on site-visit, is a father of one of the local employment.

Data variable	Source of Data	Reported value for the project period
Technology transfer and technological self –reliance	Training Certificates	• Staff have been trained for turbine operation • 5 staff have been trained for turbine climbing by Vestas
Assessment		
<i>Number of technicians and engineers trained for the operation of the plant:</i> The project activity induces technology transfer to Turkey and increases the technological sustainability. According to the training certificates /23/ /24/ /25/ /26/ /27/, it is confirmed that knowledge transfer to local people has taken place due to training of the mentioned employees. Knowledge transfer is the prerequisite to create sustainable technological self-reliance.		

Data variable	Source of Data	Reported value for the project period
Vehicle donation to the National Parks of Ministry of Environment and Forestry	Fuel Invoices	20,820 TL were spent
Assessment		
<i>Donated vehicle bills:</i> This parameter is monitored yearly by the regarding bills. According to the invoices /18/, it was confirmed that a vehicle was provided to the National Parks of Ministry of Environmental and Forestry for emergency aid and the PP covers the fuel costs.		

Data variable	Source of Data	Reported value for the project period
Employment of workers for Rescue Centre, and Pheasant Production Station, and a PR expert	• Recruitment Statement • Correspondence	5 employees were hired
Assessment		
<i>Payrolls:</i> This parameter is monitored yearly by the payroll sheets. At the beginning 3 workers and 1 expert was hired. After the expert left the job, the Rescue Centre request PP for 2 additional staff instead of the expert as confirmed through the correspondence /59/. The new employees were confirmed through the Recruitment Statement /41/.		

Data variable	Source of Data	Reported value for the project period
Shooting of a documentary film biannually	Invoices	The materials have been donated to the General Directorate of Nature Conservation and National Parks
Assessment		
<i>Regarding Bills:</i> This parameter is monitored annually by the regarding bills. The materials have been donated to the General Directorate of Nature Conservation and National Parks for the purpose of conservation, monitoring, development of biological diversity and wildlife as confirmed through the correspondence and the invoice /21/ /22/ /55/.		

Data variable	Source of Data	Reported value for the project period
Disposal of Waste oils and Hazardous solid wastes	• Agreement • Transportation Forms	Wastes are transported by an accredited company.
Assessment		

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Disposal of Waste oils and Hazardous solid wastes: The parameter was monitored continuously by project activity site visit/ agreement with the municipality and waste disposal forms, waste disposal records, existence of waste transportation vehicles or interview with the municipality. An agreement was signed between Galata Wind Enerji A.S. and Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti /20/ and National Waste Transportation Forms /49/ were submitted to the verification team.

3.5.4 Assessment of data and calculation of emission reductions

All the monthly meter protocols /29/ are available for the project participant. All PMUM records /28/ within this monitoring period was checked during the site visit. The PMUM records /28/ were crosschecked with the monthly meter reading protocols /29/.

The data of generated electricity are transferred correctly to the excel sheet /9/ and emission reduction is calculated correctly. The excel sheet is crosschecked with the PMUM records /28/ and the monthly meter reading protocols /29/ and it seems appropriate.

3.5.5 Accuracy of emission reduction calculations

The emission reduction calculations provided in the spreadsheet /9/ have been verified to be correct and in line with the registered PDD /1/.

The emission reductions from the project for the monitoring period as reported in the monitoring report version 3 of 15/11/2011 to 31/10/2013 /3/ is equivalent to 335,595 tCO₂e. The reported emission reductions are 12% lower than the estimated emission reduction of 381,016 tCO₂e for the period as per the registered PDD /1/.

The data presented in the monitoring report /3/ 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 3.5.3.3.

3.5.6 Accuracy of the GS indicators of sustainable development

All the documented evidences related to the sustainable monitored parameters such as the road watering pictures /44/, truck invoice /38/, Water and Sanitation Directorate Permit /39/, road condition pictures /44/, noise measurement report /40/, excavation soil pictures /51/, map of the turbines /53/, expert reports /32/ /33/ /34/ /35/, trainings and the attendance lists /23/ /24/ /25/ /26/ /27/, SGK records /43/, donated vehicle bills /18/, Recruitment Statement /41/, the donated materials for shooting of a documentary film biannually /21/ /22/ /55/, waste transportation agreement /20/, National Waste Transportation Forms /49/ are provided as objective evidences.

3.5.7 Management system and quality control

The electricity generation supplied to the grid and electricity consumption from the grid is read from the electricity meters through Monthly Meter Reading Protocols by the TEIAS personnel. The monthly meter reading protocols are prepared as per these readings. The plant personnel records the electricity generation from the meters every day and the responsible engineer checks the figures regularly. In case of difference between the data, TEIAS will be informed. 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.

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 /3/ in line with the ACM0002 version 12.1 /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 "Sah 93.0 MW Wind Power Plant" in Turkey, GS Registration Reference N° 905, for the period 15/11/2011 to 31/10/2013, with regard to the relevant requirements for GS activities.

The project participants of the "Sah 93.0 MW Wind Power Plant" 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 11 of 18/03/2013
- 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 3 of 05/05/2014 for the "Sah 93.0 MW Wind Power Plant" project in Turkey for the period 15/11/2011 to 31/10/2013 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 12.1.0 of 26/11/2010 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 15/11/2011 to 31/10/2013 amount to 335,595 tCO₂e.

Year 2011 15/11/2011 to 31/12/2011 21,960.11 tCO₂e

Year 2012 12/03/2012 to 31/12/2012 167,756.46 tCO₂e

Year 2013 01/01/2013 to 31/10/2013 145,878 tCO₂e

GHG Emission Reductions or Removals	tCO ₂ e
Baseline Emissions	335,595
Project Emissions	0
Leakage	0
Net GHG emission reductions or removals	335,595

Istanbul, 20/05/2014

Genova, 21/05/2014



Tugce KIRATLI
GS Team Leader

RINA Denizcilik ve Belgelendirme Ltd. Sti.



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	Conclusion
A Description of Project Activity					
A.1	Title of the project activity, revision number and date of Monitoring Report	/1/ /3/ /8/ /12/	DR	The title of the project activity is given as “Sah 93.0 Wind Power Plant” in the Monitoring Report version 1 /3/. However, the title is not in line with the registered PDD /1/ and Validation Report /8/. Also, GS Registry should be updated. The revision number and date of the Monitoring Report seems appropriate. The registration date of the project activity is defined as 15/11/2013 in the first page of the monitoring report as confirmed through the registration mail /58/. The Monitoring report form (F-CDM-MR) is in line with the latest version 3.2 /12/.	CR-1 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/ /3/ /13/ /36/ /37/ /58/	DR, CC, I	It is confirmed during the site visit performed on 03/02/2014 that project activity is implemented and operated as per the registered PDD /1/. The starting date of operation is 19/05/2011 as confirmed through the Temporary Acceptance Protocol /37/ and the starting date of the crediting period is 15/11/2011 as confirmed through the mail for registration /58/. The crediting period of the project activity is defined as 15/11/2011 – 15/11/2018 (both days are included). However, the crediting period should be corrected as 15/11/2011 – 14/11/2018 (both days are included). The project activity consists of 35 wind turbines, each with a 3 MW capacity and making the total installed capacity of 115 MWm / 93 MWe. Technical details of the wind turbines comply with the registered PDD /1/ and Vestas Data sheet /13/. It was confirmed during the site visit that all installed turbines are Vestas V90 3000 kW model turbines.	CR-2 OK

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

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				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 Gobel Transmission Line. However, this information is not mentioned in MR. The coordinates of all the turbines are confirmed through the Generation License /36/. The calculation of the estimated emission reduction given in the cover page and Section E.5 of Monitoring Report version 1 /3/ is not in line with the registered PDD /1/. Please clarify how the value was calculated. In Section A.1 of the monitoring report, it is defined that the project activity had 31 turbines at the beginning, 21 of them are in Balikesir and 9 of them are in Bursa. However, in the registered PDD it is defined as 22 turbines are positioned in Balikesir. Please correct.	
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 12.1 of 26/11/2010 /7/.	OK
B Monitoring					
B.1 Monitoring plan					
B.1.1	Does the monitoring plan included in the registered GS project activity comply with the applied methodology?	/1/ /7/	DR, CC	The monitoring plan of the registered GS project activity complies with the applied methodology ACM0002 version 12.1 /7/.	OK
B.1.2	Does the monitoring comply with the monitoring plan in the registered PDD?	/1/ /2/ /7/	DR, CC	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y ($EG_{\text{facility},y}$) needs to be monitored as per the ACM0002 version 12.1.0 /7/ and registered PDD /1/. In addition, since the project is developed under Gold standard, the following GS sustainable development parameters needs to be monitored for the second monitoring period as per the registered GS Passport /2/: “Air Quality”, “Water Quality and Quantity”, “Soil Condition”, “Other Pollutants”, “Biodiversity”, “Quality of Employment”, “Quantitative Employment and Income Generation”, “Technology transfer and technological	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				self-reliance", "Vehicle donation to the National Parks of Ministry of Environment and Forestry", "Employment of workers for Rescue Centre, and Pheasant Production Station, and a PR expert", "Shooting of a documentary film biannually", "Waste Management".	
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?	/4/ /5/	DR, CC	The project activity is developed and registered under Gold standard Version 2.2; therefore, GS Toolkit 2.2 is applicable to the project activity. The sustainability indicators in the monitoring report complies with the sustainability indicators established by the Gold Standard.	OK
B.1.4	Have any changes been made to the key sustainable development indicators?	/1/ /7/	DR, CC, I	No change has been occurred to the sustainable development indicators during the monitoring period of 15/11/2011 to 31/10/2013 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/ /8/	DR, CC	Emission Factor of the Turkish Grid (EF): As per the approved methodology ACM0002 version 12.1.0, 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 0.6071 tCO ₂ /MWh in the registered PDD /1/ and validation report /8/ . However, the title of the parameter is not in line with the registered PDD.	CR-3 OK
B.3 Data and parameters monitored					
B.3.1	Data/Parameter monitored / Data unit / Description / Source of data to be used / Value data for the monitoring period	/1/ /28/ /29/ /52/ /56/	DR, CC, I	Quantity of Net Electricity Generation Supplied by the Project Plant/Unit to the Grid in year y ($EG_{facility,y}$): The electricity generation and electricity consumption is measured in MWh/yr and it is monitored by four electricity meters that are located at the project activity. However, the unit and the description of the parameter are not in line with the registered PDD. During on site visit according to the interviews with the operation technician, it is confirmed that the electricity generation and consumption were monitored and	CAR-1 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				recorded for every hour. However, in the monitoring report /3/, it is mentioned as "The reading of the meter would be recorded at 24:00 every day". Please correct. The electricity generation and electricity consumption of the project activity is based on the PMUM records /28/. The PMUM records are crosschecked with the monthly official electricity metering reports (OSF Forms) /29/ during this monitoring period. Also, for the dates of 15/11/2011-16/08/2012-26/10/2013, the daily electricity generation for internal control /52/ were crosschecked with the OSF Forms. The project activity began to use the new system (OSOS) at the beginning of the crediting period as confirmed through the correspondence /56/.	
B.3.2	Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate?	/3/ /16/ /46/ /48/	DR, CC,I	Four electricity meters are installed at the project site. For Transformers-1, the main meter is ELSTER A1500 with serial number 00419695 and the back-up meter is ELSTER A1500 00419696 in the project activity. For Transformers-2, the main meter is ELSTER A1500 with serial number 00419697 and the back-up meter is ELSTER A1500 00419698 in the project activity. The meters have the accuracy of 0.5s as confirmed through the First Index Report /16/, given by TEIAS. However, in footnote 5, Vestas V90 data sheet was given for the reference of the meter's accuracy. Please correct. As per the MR, it is defined that TEIAS requests annual test for the meters. The electricity meters were tested by TEIAS on 16/04/2013. However, there is no information about this situation in the MR. Please also mentioned and present the explanation and the date of the first index protocol in the MR. The description of the meters presented in the monitoring report is in line with the operation as confirmed through the site visit observation. As per the GS Foundation /46/, the Verifying DOE shall check the electricity meters installation date and initial	CR-4 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				calibration dates during the first verification. The electricity meters were installed on 28/04/2011 as confirmed through the First Index Protocol /16/ given by TEIAS. The initial calibration of the electricity meters were performed on 13/04/2011 as confirmed through the Calibration Reports /48/ given by Kesir Muhendislik.	
B.3.3	Are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate?	/1/ /3/ /48/ /54/	DR, CC, I	TEAIS 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. During this monitoring period no discrepancy was occurred. The meters were calibrated on 13/04/2011 by a accredited company /48/ . The recalibration of these meters will be done in line with the equipment requirements and through the period defined by national metrology institutes country by country and for Turkey this period is defined as 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation. According to the TEIAS' requests, the electricity meters will test every year and the initial testing was performed on 16/04/2013 as confirmed through the test reports /54/ .	OK
B.3.4	Is the monitoring frequency adequate for all monitoring parameters? Is it in line with the registered monitoring plan?	/1/ /3/ /7/	DR, CC, I	The electricity generation supplied to the grid and electricity consumption from the grid is monitored continuously by four meters as verified during the site visit. Monitoring frequency is in line with the applied methodology and registered PDD.	OK
B.3.5	Is the recording frequency adequate for all monitoring parameters? Is it in line with the registered monitoring plan?	/1/ /3/ /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.	OK
B.3.6	Does data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions?	/3/ /29/ /52/	DR, CC, I	At the last day of each month, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely and the monthly official electricity	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				metering reports (OSF Forms) /29/ are prepared and send to the company. The plant staff explained the monitoring procedures during the site visit. As confirmed through the observation, the plant personnel records the electricity generation in every hour from the meters, fills the daily form, transfer to the excel sheet and send to Dogan Enerji every day as confirmed though the daily reports /52/.	
B.4 Monitoring of GS indicators of sustainable development /environmental impacts					
B.4.1	Data/Parameter monitored / Data unit / Description / Source of data to be used / Value data for the monitoring period	/1/ /3/ /8/ /18/ /20/ /21/ /22/ /23/ /24/ /25/ /26/ /27/ /32/ /33/ /34/ /35/ /38/ /39/ /40/ /41/ /43/ /44/ /49/ /51/ /53/ /55/ /59/	DR, CC, I	The following GS sustainable development parameters are monitored as per the registered GS Passport /2/: “Air Quality”, “Water Quality and Quantity”, “Soil Condition”, “Other Pollutants”, “Biodiversity”, “Quality of Employment”, “Quantitative Employment and Income Generation”, “Technology transfer and technological self-reliance”, “Vehicle donation to the National Parks of Ministry of Environment and Forestry”, “Employment of workers for Rescue Centre, and Pheasant Production Station, and a PR expert”, “Shooting of a documentary film biannually”, “Waste Management”. Air Quality: <u>Dust emissions during the construction period:</u> The parameter is monitored with on-site observation continuously. It was confirmed through the pictures /44/ and the interviews with the stakeholders that no dust emission was affected to the village. Water Quality and Quantity: <u>The amount of discharged wastes to the water resources:</u> The parameter is monitored continuously by site visit and also could be checked with the sewage truck invoice /38/ and the permit given by Water and Sanitation Directorate /39/. It is confirmed that the waste water is stored in a septic tank on site and disposed of periodically with vacuum. Soil Condition:	CAR-2 OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			<u>The use of storage areas for excavated earth and the removal of excavated earth:</u> The parameter is monitored during and after the construction by on-site observation. It is confirmed during the site visit that all the excavation was used for filling the turbine locations and flattening the service roads. The reference pictures /51/ shows that bumpy roads are flattened. Other Pollutants: <u>The noise level in the region after the project implementation:</u> The parameter is monitored by noise level measurement if there is a complaint. Noise and Vibration Measurement Report /40/ -performed by an accredited company- was submitted to the verification team. It is confirmed that the noise level is under the legal limits. Also, local stakeholders were interviewed during on site visit and no negative feedback was received. They also confirmed that the village is so far from the project activity and noise emission is inaudible. <u>Road conditions:</u> The parameter is monitored by checking the condition of road during the complete construction phase. It could be confirmed that the roads' conditions were improved after the construction as per the pictures /44/, site visit observation and interview with stakeholders. Biodiversity: <u>Design and location of the turbines:</u> The parameter is monitored once after the implementation by checking the painting, lightening and location of the turbines. As per the Validation Report /8/, "The distance between the turbines should be monitored first verification period. The distance between the turbines is defined as 250-300m at the protocol between the project owner and Ministry of Environment and Forestry. The distance between the neighbouring project ATARES-1 and SAHRES should be 750m., and should be kept clear throughout the project site in a north-south direction, as specified by the same protocol, item 1.	

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			According to the interviews with the authorized of the company and the site observation, it was confirmed that the neighbouring project ATARES-1 is rejected by EMRA. Also, all the turbines are located with a sufficient distance as confirmed through the map of the located turbines /53/. <u>Plantation and landscaping activities:</u> The parameter is monitored after the construction by site visits. During on site visit, the PP is mentioned that the plantation for the tree cutting was performed by the Directorate of Forestry. However, the protocol between the directorate and the PP could not submit to the verification team. <u>Warnings signs and pictures:</u> The parameter is monitored during the verification by site visits/ injury or deaths records for animals. According to the interviews with the stakeholders and the Department Manager of Hunting and Wildlife, there is no injury or deaths near the project area. Also, expert reports /32/ /33/ /34/ /35/ was provided to the verification team. Quality of Employment: <u>Number of employees to be trained/certified for the construction and operation of the plant:</u> The parameter is monitored by checking the training records. All the trainings and the attendance lists /23/ /24/ /25/ /26/ /27/ during this monitoring period were provided to the verification team. Quantitative Employment and Income Generation: <u>Household income generated from the project:</u> The parameter is monitored continuously by SGK Records. According to the SGK Records of September and October 2013 /43/, 22 employees were hired. As per the GS Foundation /46/, The Verifying DOE shall check at the time of verification if the local labour is employed. According to interviews with the stakeholders, it is confirmed that the project activity hired the local	

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			employment from Dedeoba, Cakil and Yesildere Villages. Also, Senol Kose that we interviewed during on site-visit, is a father of one of the local employment. Technology transfer and technological self – reliance: <u>Number of technicians and engineers trained for the operation of the plant:</u> The project activity induces technology transfer to Turkey and increases the technological sustainability. According to the training certificates /23/ /24/ /25/ /26/ /27/, it is confirmed that knowledge transfer to local people has taken place due to training of the mentioned employees. Knowledge transfer is the prerequisite to create sustainable technological self-reliance. Vehicle donation to the National Parks of Ministry of Environment and Forestry: <u>Donated vehicle bills:</u> This parameter is monitored yearly by the regarding bills. According to the invoices /18/, it was confirmed that a vehicle was provided to the National Parks of Ministry of Environmental and Forestry for emergency aid and the PP covers the fuel costs. Employment of workers for Rescue Centre, and Pheasant Production Station, and a PR expert: <u>Payrolls:</u> This parameter is monitored yearly by the payroll sheets. At the beginning 3 workers and 1 expert was hired. After the expert left the job, the Rescue Centre request PP for 2 additional staff instead of the expert as confirmed through the correspondence /59/. The new employees were confirmed through the Recruitment Statement /41/. Shooting of a documentary film biannually: <u>Regarding Bills:</u> This parameter is monitored annually by the regarding bills. The materials have been donated to the General Directorate of Nature Conservation and National Parks for the purpose of conservation, monitoring, development of biological diversity and	

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			wildlife as confirmed through the correspondence and the invoice /21/ /22/ /55/. Waste Management: <u>Disposal of Waste oils and Hazardous solid wastes:</u> The parameter was monitored continuously by project activity site visit/ agreement with the municipality and waste disposal firms, waste disposal records, existence of waste transportation vehicles or interview with the municipality. An agreement was signed between Galata Wind Enerji A.S. and Vebsan Endustriyel Atik Sanayi ve Tic. Ltd. Sti /20/ and National Waste Transportation Forms /49/ were submitted to the verification team. Please check the way of monitoring “How, When, By Who” of the indicators and be sure all of them are presented for all the sustainability parameters. Also, please add the values for all the parameters such as “Quality of Employment”, “Technology Transfer and Technological Self-reliance”, “Vehicle Donation” and “Employment of Workers for Rescue Centre”. As per the Validation Repot /8/, Realization of informative meetings organized in collaboration with the Bursa Provisional Directorate of Environment and Forestry will be monitored through relevant records of such meetings (e.g. documentation, minutes, photos, participant lists, etc.). However, there is no documentation, photos or participant lists for the meeting organized with the Bursa Provisional Directorate of Environment and Forestry. As per the Validation Repot /8/, Compliance with items 11 and 13 of the protocol signed between Galata Wind Enerji Ltd. Şti. And Bursa Provisional Directorate of Environment and Forestry, Nature Protection and National Parks Administration, signed by the PP on 08/02/2010, will be monitored through the applicable records. (e.g. for item 11: records of training, research, symposiums, relevant records of payments, receipts for such participation, etc.; e.g. for item 13: social security	

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				records, official evaluation correspondence of the Nature Protection and National Parks Administration). For the 5 Nature Protection and National Parks employees, the Recruitment Statements /41/ was provided to the verification team. However no training was performed for the employees during this monitoring period. Payroll Sheets /43/ for September and October 2013 and the correspondences /59/ were also provided for all the employees work in Rescue Centre. During on site visit, it was observed and the stakeholders were interviewed about the new roads. They indicated that the new roads of the village are more useful for driving. However, after the roads were flattened with the excavation soil, because of the new level of the roads, there are two ditches in right and left of the road for water flowing and they could not pass to the opposite site and they could not reach the slip roads that they use for moving into the forest. Please clarify.	
B.4.2	Is the monitoring in line with the registered monitoring plan?	/1/ /2/ /3/	DR, CC, I	The monitoring complies with the monitoring plan presented in the registered PDD.	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?	/1/ /3/	DR, I	An on-site inspection has been performed on 03/02/2014 and it could be 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)?	/1/ /3/	DR, I	The electricity generation supplied to the grid and electricity consumption from the grid is monitored by four meters as verified during the site visit. The meters are sealed by TEIAS. The electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by TEIAS. The reading results are stored by PMUM on the web site. The plant staff explained the monitoring procedures during the site visit. As confirmed through the observation, the plant staff monitors and records the data at every hours from the meters, fills the forms daily	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				and compares the values for consistency. The responsible engineer performs regular checks of this procedure each month. If any difference occurs between the two meters, TEIAS has to be informed.	
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?	/1/ /3/ /28/ /52/	DR, I	The generated electricity is measured by four 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 also archives a hardcopy of the monthly official electricity metering reports /28/ and daily reports /52/ , scanned or transfer 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/ /3/ /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 /3/ in line with the ACM0002 version 12.1.0 /7/ .	OK

TABLE 2 RESOLUTION OF CORRECTIVE ACTION REQUESTS AND CLARIFICATION REQUESTS

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
CAR 1 Quantity of Net Electricity Generation Supplied by the Project Plant/Unit to the Grid in year y ($EG_{facility,y}$): The electricity generation and electricity consumption is measured in MWh/yr and it is monitored by four electricity meters that are located at the project activity. However, the unit and the description of the parameter are not in line with the registered PDD. During on site visit according to the interviews with the operation technician, it is confirmed that the electricity generation and consumption were monitored and recorded for every hour. However,	B.3.1	Response to Review 1: The regarding parameter and description has been corrected in MR. Response to Review: It has been corrected.	<u>Review 1 (27/03/2014):</u> Quantity of Net Electricity Generation Supplied by the Project Plant/Unit to the Grid in year y ($EG_{facility,y}$): The unit of the parameter is now in line with the PDD. However, the description of the parameter is still not in line with the registered PDD. Please correct. The description is corrected as "The reading of the meter would be recorded for every hour" in the monitoring report. <u>Hence, CAR 1 is not closed.</u>

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
in the monitoring report /3/, it is mentioned as "The reading of the meter would be recorded at 24:00 every day". Please correct.			Review 2 (28/04/2014): Quantity of Net Electricity Generation Supplied by the Project Plant/Unit to the Grid in year y ($EG_{facility,y}$): The description of the parameter is now corrected and in line with the registered PDD. Hence, CAR 1 is closed.
CAR 2 <u>Plantation and landscaping activities:</u> The parameter is monitored after the construction by site visits. During on site visit, the PP is mentioned that the plantation for the tree cutting was performed by the Directorate of Forestry. However, the protocol between the directorate and the PP could not submit to the verification team. Please check the way of monitoring "How, When, By Who" of the indicators and be sure all of them are presented for all the sustainability parameters. Also, please add the values for all the parameters such as "Quality of Employment", "Technology Transfer and Technological Self-reliance", "Vehicle Donation" and "Employment of Workers for Rescue Centre". As per the Validation Repot /8/, Realization of informative meetings organized in collaboration with the Bursa Provisional Directorate of Environment and Forestry will be monitored through relevant records of such meetings (e.g. documentation, minutes, photos, participant lists, etc.). However, there is no documentation, photos or participant lists for the meeting organized with the Bursa Provisional Directorate of Environment and Forestry. Please clarify. As per the Validation Repot /8/, Compliance with items 11 and 13 of the protocol signed between Galata Wind Enerji Ltd. Şti. And Bursa Provisional Directorate of Environment and Forestry, Nature	B.4.1	Response to Review 1: Plantation and landscaping activities: The regarding protocol has not been provided to consultant. The plantation works will be started in this year and it will be completed before the 2nd verification. For this reason, the regarding commitment will be performed during the 2nd verification. All of the regarding parameters has been checked and revised accordingly. This type meeting has not been organized. However, an additional informative meeting was organized by PP during the construction phase of project.. (Please see 'Bilgilendirme Toplantısı' folder in attachments). No training was performed during this monitoring period. The trainings would be performed in line with the personnel request and requirement. The soil stacks and corrections will be made to reduce the elevation difference. For this reason, PP will rent a heavy construction equipment/truck and works will be started in this summer. Response to Review:	Review 1 (27/03/2014): <u>Plantation and landscaping activities:</u> The PP is mentioned that the plantation for the tree cutting will be performed by the Directorate of Forestry. Therefore, a FAR is raised to monitor the parameter in the next verification. Please check the way of monitoring "How, When, By Who" of the indicators and be sure all of them are presented for all the sustainability parameters. The value of the "Quality of Employment" is now defined as 22 employees. The number of technicians and engineers trained for the operation is now defined as "4 staff have been trained for turbine operation" and "5 staff have been trained for turbine climbing by Vestas" for the parameter of "Technology Transfer and Technological Self-reliance". The value of the "Employment of Workers for Rescue Centre" is now mentioned as 5 workers in the monitoring report. However, the value of the "Vehicle Donation" could not be confirmed with the invoices provided by PP. Please pay attention to the registration number of the cars and the date of the invoices. The informational meeting for the stakeholders have to be performed for all the renewable energy projects. According to

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
Protection and National Parks Administration, signed by the PP on 08/02/2010, will be monitored through the applicable records. (e.g. for item 11: records of training, research, symposiums, relevant records of payments, receipts for such participation, etc.; e.g. for item 13: social security records, official evaluation correspondence of the Nature Protection and National Parks Administration). For the 5 Nature Protection and National Parks employees, the Recruitment Statements /41/ was provided to the verification team. However no training was performed for the employees during this monitoring period. Payroll Sheets /43/ for September and October 2013 and the correspondences /59/ were also provided for all the employees work in Rescue Centre. During on site visit, it was observed and the stakeholders were interviewed about the new roads. They indicated that the new roads of the village are more useful for driving. However, after the roads were flattened with the excavation soil, because of the new level of the roads, there are two ditches in right and left of the road for water flowing and they could not pass to the opposite site and they could not reach the slip roads that they use for moving into the forest. Please clarify.		The way of monitoring “How, When, By Who” of the all indicators has been added on tables. The invoices are provided to DOE. An informational meeting was realized by PP during the construction phase of project. However, the meeting was not organized in collaboration with the Bursa Provisional Directorate of Environment and Forestry. Therefore, the informational meeting for the stakeholders will be performed in collaboration with the Bursa Provisional Directorate of Environment and Forestry during the 2nd verification.	the Validation Report /8/, Realization of informative meetings organized in collaboration with the Bursa Provisional Directorate of Environment and Forestry will be monitored through relevant records of such meetings (e.g. documentation, minutes, photos, participant lists, etc.). Please clarify. As per the Validation Report /8/, the training records given for the Nature Protection and National Parks employees could not be provided. Therefore, a FAR is raised and the parameter will be monitored during the next verification. During on site visit, it was observed and the stakeholders were interviewed about the new roads. They indicated that the new roads of the village are more useful for driving. However, after the roads were flattened with the excavation soil, because of the new level of the roads, there are two ditches in right and left of the road for water flowing and they could not pass to the opposite site and they could not reach the slip roads that they use for moving into the forest. The PP clarified that the soil stacks and corrections will be made to reduce the elevation difference. PP will rent a heavy construction equipment/truck and works will be started in this summer. Therefore, the parameter will be monitored during the next verification. <u>Hence, CAR 2 is not closed and also 3 FARs are raised.</u> <u>Review 2 (05/05/2014):</u> The way of monitoring “How, When, By Who” of the indicators have been added to

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
			the monitoring report. The invoices are now provided to the verification team and the necessary corrections were made in MR. However, as per the validation FAR, the meeting was not organized in collaboration with the Bursa Provisional Directorate of Environment and Forestry. <u>Hence, CAR 2 is closed and also 2 FAR are raised.</u>
CR 1 The title of the project activity is given as “Sah 93.0 Wind Power Plant” in the Monitoring Report version 1 /3/. However, the title is not in line with the registered PDD /1/ and Validation Report /8/. Also, GS Registry should be updated.	A.1	Response to Review 1: The title of project activity in MR has been revised in line with the registered PDD and validation report. However, the project account in GS Registry is not available for project owner and consultant. The PP is contact with the GS and the project title will be corrected after the this issue is solved. Response to Review: The title of project in registry has been corrected as “Sah 93.0 MW Wind Power Plant”. Please see link below; http://mer.markit.com/br-reg/public/index.jsp?q=sah&s=cp	<u>Review 1 (27/03/2014):</u> The title of the project activity is now corrected as “Sah 93.0 MW Wind Power Plant” in the Monitoring Report /3/ and in line with the registered PDD /1/ and Validation Report /8/. However, the title is not in line with the GS Registry. Please provide the correspondence about the request from GS. <u>Hence, CR 1 is not closed.</u> <u>Review 2 (28/04/2014):</u> The title of the project activity is now corrected as “Sah 93.0 MW Wind Power Plant” in the GS Registry. <u>Hence, CR 1 is closed.</u>
CR 2 The crediting period of the project activity is defined as 15/11/2011 – 15/11/2018 (both days are included). However, the crediting period should be corrected as 15/11/2011 – 14/11/2018 (both days are included). Generated electricity is supplied to the National Electricity Transmission Grid of Turkey at the 154	A.2	Response to Review 1: The end date of the crediting period of project has been corrected as 14/11/2018. Also, the regarding information has been added under the section A.1 of MR. The estimated emission reduction has	<u>Review 1 (27/03/2014):</u> The crediting period of the project activity is now defined as 15/11/2011 – 14/11/2018 (both days are included) in the monitoring report. It is now mentioned in the monitoring report that generated electricity is supplied to the National Electricity Transmission Grid of

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
kV Gobel Transmission Line. However, this information is not mentioned in MR. The calculation of the estimated emission reduction given in the cover page and Section E.5 of Monitoring Report version 1 /3/ is not in line with the registered PDD /1/. Please clarify how the value was calculated. In Section A.1 of the monitoring report, it is defined that the project activity had 31 turbines at the beginning, 21 of them are in Balıkesir and 9 of them are in Bursa. However, in the registered PDD it is defined as 22 turbines are positioned in Balıkesir. Please correct.		been revised as 381,016 and calculation method has been described in a excel worksheet. Please see 'Calculation of the estimated emission reduction.exe' in attachments folder. The number of turbines that positioned in Balıkesir has been corrected as 22 in section A.1 of MR.	Turkey at the 154 kV Gobel Transmission Line. The calculation of the estimated emission reduction is now clearly defined as per the calculation excel sheet /60/ and also in line with the registered PDD /1/. The number of the turbines located in the Balıkesir is now corrected as 22 in the monitoring report. <u>Hence, CR 2 is closed.</u>
CR 3 Emission Factor of the Turkish Grid (EF): As per the approved methodology ACM0002 version 12.1.0, 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 0.6071 tCO₂/MWh in the registered PDD /1/ and validation report /8/. However, the title of the parameter is not in line with the registered PDD.	B.2.1	Response to Review 1: The title of the parameter has been revised in MR.	<u>Review 1 (27/03/2014):</u> The title of the parameter is now corrected as EF_{grid,CM,y} and now in line with the registered PDD. <u>Hence, CR 3 is closed.</u>
CR 4 The meters have the accuracy of 0.5s as confirmed through the First Index Report /16/, given by TEIAS. However, in footnote 5, Vestas V90 data sheet was given for the reference of the meter's accuracy. Please correct. As per the MR, it is defined that TEIAS requests annual test for the meters. The electricity meters were tested by TEIAS on 16/04/2013. However, there is no information about this situation in the MR. Please also mentioned and present the explanation and the date of the first index protocol in the MR.	B.3.2	Response to Review 1: The given reference in footnote 5 has been changed as First Index Report. Also, latest test date of the meters and date of the First Index Protocol have been added in MR.	<u>Review 1 (27/03/2014):</u> The footnote 5 has been corrected as "First Index Protocol" of the meters in the monitoring report, version 2. The first index protocol and the annual test performed by TEIAS are now mentioned with their dates in the monitoring report, version 2. <u>Hence, CR 4 is closed.</u>

TABLE 3 FORWARD ACTION REQUEST

Forward action request	Reference to Table 1	Response by project participants Verification conclusion
FAR 1 <u>Plantation and landscaping activities:</u> The PP is mentioned that the plantation for the tree cutting will be performed by the Directorate of Forestry. Therefore, a FAR is raised to monitor the parameter in the next verification.	B.4.1	Response to FAR1: The plantation and landscaping activities will be performed by Galata A.Ş and it will be completed before the 2 nd verification time. The PP is contact with the Directorate of Forestry. RINA Opinion: The sustainable parameter (<i>Plantation and landscaping activities</i>) will be monitored during the next verification period.
FAR 2 As per the Validation Repot /8/, the training records given for the Nature Protection and National Parks employees could not be provided. Therefore, a FAR is raised and the parameter will be monitored during the next verification.	B.4.1	Response to FAR 2: Until now, the employees have not request to join a training or similar activities. Therefore, no training records were provided to DOE. The parameter will be monitored continuously and training records will be provided to DOE during the next verification. RINA Opinion: The sustainable parameter (trainings given for the Nature Protection and National Parks employees) will be monitored during the next verification period.
FAR 3 During on site visit, it was observed and the stakeholders were interviewed about the new roads. They indicated that the new roads of the village are more useful for driving. However, after the roads were flattened with the excavation soil, because of the new level of the roads, there are two ditches in right and left of the road for water flowing and they could not pass to the opposite site and they could not reach the slip roads that they use for moving into the forest. The PP clarified that the soil stacks and corrections will be made to reduce the elevation difference. PP will rent a heavy construction equipment/truck and works will be started in this summer. Therefore, the parameter will be monitored during the next verification.	B.4.1	Response to FAR3: The PP has been considered the stakeholders comments about the this issue and PP will started to works in this summer. RINA Opinion: The sustainable parameter (road condition) will be monitored during the next verification period.
FAR 4	B.4.1	

Forward action request	Reference to Table 1	Response by project participants Verification conclusion
As per the Validation Report /8/, Compliance with items 11 and 13 of the protocol signed between Galata Wind Enerji Ltd. Şti. And Bursa Provisional Directorate of Environment and Forestry, Nature Protection and National Parks Administration, signed by the PP on 08/02/2010, will be monitored through the applicable records. (e.g. for item 11: records of training, research, symposiums, relevant records of payments, receipts for such participation, etc.; e.g. for item 13: social security records, official evaluation correspondence of the Nature Protection and National Parks Administration). However, during this monitoring period the meeting was not organized in collaboration with the Bursa Provisional Directorate of Environment and Forestry. Therefore, this parameter will be monitored during the next verification period.		Response to FAR 4: The PP has been indicated that the informational meeting for the stakeholders will be realized in collaboration with the Bursa Provisional Directorate of Environment and Forestry during the 2nd verification. RINA Opinion: This parameter will be monitored during the next verification period.



RINA

CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Tugce Kiratli

è qualificato come¹:
is qualified as:

CDM-TEC, JI-TEC, VCS-TEC, GS-TEC, VCS-VAL, VCS-
VER, GS-VAL, GS-VER, GS-TL, VCS-TL

per le seguenti aree tecniche:
for the following technical areas:

1.2, 13.1

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2*	Energy generation from renewable energy sources	1
13.1	Waste handling and disposal	13

*Just for GS and VCS, not for CDM

in accordo alle istruzioni della Divisione Certificazione.
in accordance with the instructions of the Certification Division.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
4	14/01/2014	Updated qualification as VCS-GS TL
0	26/11/2012	-

Il Resp. QPT
Head of QPT

¹ Legend:

VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
DET: Determiner

CDM: Clean Development Mechanism
VCS: Verified Carbon Standard:
GS: Gold Standard
SCS: SocialCarbon Standard
JI: Joint Implementation

RINA Services S.p.A. è accreditato da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports



RINA

CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Rita Valoroso

è qualificato come1:
is qualified as:

CDM-TEC, CDM-VAL, CDM-VER, CDM-TL, CDM-FIN-EXP
VCS-TEC, VCS-VAL, VCS-VER, VCS-TL, VCS-FIN-EXP
GS-TEC, GS-VAL, GS-VER, GS-TL, GS-FIN-EXP
SCS-TEC, SCS-VAL, SCS-VER, SCS-TL, SCS-FIN-EXP
JI-TEC, JI-FIN-EXP

per le seguenti aree tecniche:
for the following technical areas:

1.2, 13.1

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Energy generation from renewable Energy sources	1
13.1	Waste Handling and Disposal	13

in accordo alle istruzioni della Divisione Certificazione.
in accordance with the instructions of the Certification Division.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	18-01-10	-
7	12-07-13	Annual revision

Il Resp. QPT
Head of QPT

1 Legend:

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