GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Final

"Gunaydin WPP"
in
Turkey

Monitoring period: 01/05/2014 to 31/07/2015

Report N°2015-TQ-07-MD

Revision N°1.4 Aa

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Project Title:	Country:	Estimated VERs (tCO2e):
Gunaydin WPP	Turkey	34,486
GS Registration Reference N°:	**Monitoring period:**	**Certified VERs (tCO2e):**
1178	01/05/2014 to 31/07/2015	27,754
Client:	**Client contact:**	
Manres Elektrik Uretim A.S.	Burcu ISIK	
Report No.:	**Revision:**	**Date of this report:**
2015-TQ-07-MD	1.4 Aa	22/12/2015
Approved by (Final Report – AO Authorized office signing for the DOE):		**Date of approval:**
Laura SEVERINO		23/12/2015

Methodology

Number:	Version:	Title:	Scale	SS(s):
ACM0002	14.0.0 of 04/10/2013	Grid-connected electricity generation from renewable sources	Large	1

RINA Services S.p.A. (RINA), commissioned by Manres Elektrik Uretim A.S., has verified the greenhouse gas emission reductions reported for the project activity "Gunaydin WPP" in Turkey, GS Registration Reference N° 1178, for the period 01/05/2014 to 31/ 07/2015, 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 RINA (validation report N° 2012-TQ-16- MD, version 1.2 of 25/07/2013) and it was registered on 14/06/2013 under the GS registration reference N° 1178.

The GHG emission reductions were calculated on the basis of the approved methodology ACM0002, version 14.0, "Grid-connected electricity generation from renewable sources" of 04/10/2013 and the monitoring plan included in the registered Project Design Document, version 9 of 02/06/2014.

In conclusion, it is RINA's opinion that the project activity "Gunaydin WPP", as described in the Monitoring Report version 05 of 19/10/2015, 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 14.0 of 04/10/2013. Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/05/2014 to 31/07/2015 amount to 27,754 tCO_2e.

Baseline Emissions	27,754	tCO_{2e}
Project Emissions	0	tCO_{2e}
Leakage	0	tCO_{2e}
Net GHG emission reductions/removal	27,754	tCO_{2e}

Work carried out by:	
Tugce KIRATLI	☒ No distribution without permission from the Client or organizational unit responsible ☐ Strictly confidential ☐ Unrestricted distribution

Work verified by (Final Report – Scheme Manager)	Keywords:
Rita VALOROSO	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_2e	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
PP(s)	Project Participant(s)
PMUM	Market Financial Conciliation Center (Piyasa Mali Uzlastirma Merkezi)
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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GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

1 INTRODUCTION

Manres Elektrik Uretim A.S. has commissioned RINA to carry out the verification and certification of emission reductions reported for the registered “Gunaydin WPP” project in Turkey, GS Registration Reference N° 1178, for the period 01/05/2014 to 31/ 07/2015.

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 “Gunaydin WPP” project in Turkey for the period 01/05/2014 to 31/07/2015.

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.

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 05 of 19/10/2015 /3/, the emission reduction calculations provided in the form of a spreadsheet "Conf _Gunaydin_VER_Calcs_Monitoring_Report_19102015_v5.xlsx" version 5.0 of 19/10/2015 /9/, the approved baseline and monitoring methodology ACM0002 version 14.0 of 04/10/2013 /7/ and all the documentation provided to support the monitoring period /1 – 33/ were assessed as part of the verification. In addition, the Project Design Document (PDD) version 09 of 02/06/2014 /1/, in particular as regards the baseline estimations and the monitoring plan, the Passport, version 06 of 02/06/2014 /2/ and the validation report revision 1.2 of 25/07/2013 /8/ for the project, were reviewed.

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

/1/	Global Tan Energy Ltd.: GS-PDD for " Gunaydin WPP" in Turkey, version 09 of 02/06/2014
/2/	Global Tan Energy Ltd.: Gold Standard Passport for Project Activity " Gunaydin WPP" in Turkey, version 06 of 02/06/2014
/3/	Global Tan Energy Ltd.: Monitoring Report for "Gunaydin WPP" in Turkey, version 04 of 17/09/2015 Global Tan Energy Ltd.: Monitoring Report for "Gunaydin WPP" in Turkey, version 03 of 18/08/2015 Global Tan Energy Ltd.: Monitoring Report for "Gunaydin WPP" in Turkey, version 02 of 05/08/2015 Global Tan Energy Ltd.: Monitoring Report for "Gunaydin WPP" in Turkey, version 01 of 15/06/2015
/4/	Gold Standard Foundation: Gold Standard Requirements, version 2.1 of 01/07/2009
/5/	Gold Standard Foundation: Gold Standard Toolkit, version 2.1 of 01/07/2009
/6/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard, version 09.0 of 20/02/2015
/7/	CDM Executive Board: Baseline and monitoring methodology "ACM0002", "Grid-connected electricity generation from renewable sources", version 14.0 of 04/10/2013
/8/	RINA: Validation Report for "10 MW Gunaydin WPP" No. 2012-TQ-16-MD, version 1.2 of 25/07/2013
/9/	Global Tan Energy Ltd.: Emission Reduction Calculation Spreadsheet "Conf _Gunaydin_VER_Calcs_Monitoring_Report_19102015_v5.xlsx" version 05 submitted on 19/10/2015 Global Tan Energy Ltd.: Emission Reduction Calculation Spreadsheet "Conf _Gunaydin_VER_Calcs_Monitoring_Report_2_18082015_v2.xlsx" version 02 submitted on 18/08/2015 Global Tan Energy Ltd.: Emission Reduction Calculation Spreadsheet "Conf _Gunaydin_VER_Calcs_Monitoring_Report_2_15062015_v1.xlsx" version 01 submitted on 19/06/2015
/10/	CDM Executive Board: Guideline for Completing the Monitoring Report Form, version 05.1 of 04/05/2015
/11/	CDM Executive Board: Methodological Tool "Tool to calculate the emission factor for an electricity system", version 02.2.1 of 29/08/2011

/12/	CDM Executive Board: Methodological Tool " Tool for the demonstration and assessment of additionality", version 06.0.0 of 25/11/2011
/13/	The Gold Standard Foundation: Gunaydin WPP, Turkey (GS1178) 3-week Issuance Review Period Document of 08/09/2014
/14/	Social Insurance Institution: Registration Document for 20 Employees of 04/2015
/15/	Provincial Directorate of Environment and Urban Planning: EIA Not Required Article of 25/01/2012
/16/	Provincial Directorate of Environment and Urban Planning: EIA Not Required Amended Article of 18/11/2014
/17/	Market Financial Conciliation Center (PMUM): Monthly Electricity Records within the Monitoring Period (from 01/05/2014 to 31/07/2015)
/18/	Turkish Electricity Transmission Company (TEIAS): Monthly Meter Readings within the Monitoring Period (from 01/05/2014 to 31/07/2015)
/19/	Energy Market Regulatory Authority: Communiqué for Measurement Devices used in the Electricity Market of 22/03/2003
/20/	The Ministry of Trade and Industry: Regulation of Metering and Testing of Metering Systems of 24/07/1994
/21/	Kesir Muhendislik: Calibration Certificate of Electricity Meter with a Serial No: 65000752 of 13/07/2012
/22/	Kesir Muhendislik: Calibration Certificate of Electricity Meter with a Serial No: 65000753 of 13/07/2012
/23/	Doga Arastirmalari Dernegi (Nature Research Society): Ornithology Report of 02/2015
/24/	Manyas Municipality: Correspondence About Waste Disposal Transportation, no: M.10.6.MAN.0.13 of 26/11/2013
/25/	Energy Market Regulatory Authority: Generation License EU/3490-17/2141 of 11/11/2011 amended on 20/03/2014 (based on 20 MWe/20 MWm installed capacity)
/26/	The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 20/12/2014 (2 Turbines) The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 26/12/2014 (1 Turbines)
/27/	Gulmus Nakl. Ins. Tur. Taah. Tic. San. Ltd. Sti.: Invoices of Sewage Truck, No: 40490 of 14/10/2014 Gulmus Nakl. Ins. Tur. Taah. Tic. San. Ltd. Sti.: Invoices of Sewage Truck, No: 33945 of 09/12/2014
/28/	General Directorate of Balikesir Water and Sewerage Administration: Invoices of Sewage Truck of 07/04/2015
/29/	Ilk Dost OSGB: Training Participation Certificate for 7 Employees of 28/05/2014
/30/	Provincial Health Directorate: First Aid Training for 3 Employees of 05/06/2014
/31/	RINA: Final Verification Report for the Monitoring Period of 01/12/2012 to 30/04/2014, of 29/08/2014
/32/	Photo of the Electricity Meters of the Project Activity, submitted on 11/08/2015
/33/	Daily Report for Confirming First Date of the Construction of 21/08/2014

2.2 On-site assessment

On 29/07/2015, RINA visited project site located at Yaylakoy Village of Manyas District within boundaries of Balikesir Province. 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 29/07/2015. The project employee were interviewed about the implementation status of the project, monitoring equipment and operation, generated electricity, monitoring of gold standard parameters, wastewater disposal, waste disposal, death birds, payments made to staff and trainings given to the employment.

In addition, the muhktar was interviewed about benefits of the project activity and the turbine locations changed by project owner. He explained that after the stakeholders request, the turbine location where is the nearest to the cemetery is changed. In addition, he mentioned that all the stakeholders were satisfied with the project activity. In addition, he confirmed that there is no noise complain from the stakeholders.

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

	Date	Name and Role	Organization	Topic
/a/	29/07/2015	Gani ELDELEKLIOGLU *The Consultant*	GTE Carbon	Implementation status of the project Monitoring equipments and operation Generated Electricity Monitoring of Gold Standard Parameters Wastewater Disposal Waste Disposal Death Birds Trainings Payments
/b/	29/07/2015	Zeynep Naz CANSEVER *The Consultant*	GTE Carbon	
/c/	29/07/2015	Aysun KARASOY *Operation Specialist*	Manres Elektrik A.S.	
/d/	29/07/2015	Burcu ISIK *Business Development Specialist Assistant*	Manres Elektrik A.S.	
/e/	29/07/2015	Ersem UĞUZ *Operation Manager*	Manres Elektrik A.S.	
/f/	29/07/2015	Selahatdin BASARAN *The Mukhtar*	Yayla Village	Benefits of the project activity Local Employment and Payments Change in Turbine Locations Noise Emission Capacity Extension
/g/	29/07/2015	Umit TANRIVERDI *Local Employee*	Manres Elektrik A.S.	

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.

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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.

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, GS Verifier, Technical Expert (TA 1.2)	Kiratli	Tugce	X	X	X	X	-	-
Technical Reviewer TA 1.2	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 01/05/2014 to 31/07/2015 as documented and described in the monitoring report version 05 of 19/10/2015 /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)	Manres Elektrik Uretim A.S. Global Tan Energy Ltd.		
Project Title	Gunaydin WPP		
Location of the project	Manyas District, Balikesir Province, Turkey		
Methodology(ies)	ACM0002, "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 14.0 of 04/10/2013 /7/		
Sectoral Scope(s)	1	**RINA's Technical Area(s)**	1.2
Registered PDD	Revision 09 of 02/06/2014		
Date of registration	14/06/2013	**GS Registration Reference N°**	1178

Starting date of the crediting period	01/12/2012
Project's crediting period	01/12/2012 to 30/11/2019
Monitoring period	01/05/2014 to 31/07/2015
Project documentation link	https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000001752

The project activity is a wind power plant consists of 5 GE 2.5 MW and 3 GE 2.75 MW wind turbines with a total capacity of 20 MWm/20 MWe as confirmed through the Generation License /25/. The generated electricity is fed to the national grid. The estimated net electricity production is 55,500 MWh and the annual emission reductions are estimated to be 33,300 tCO_2e 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 Gold Standard Foundation /13/, 1 FAR was raised during the capacity extension and previous verification period. All FARs have been closed successfully.

FAR#1: DOE to carry out interviews with locals to enquire about the location of the project extension to make sure the cemetery has not been disturbed and cross check that the project location is not an issue for the local stakeholders'.

During on capacity extension period, the stakeholders are concerned about the cemetery and request for the turbine locations not too close to the cemetery. The PP has found the request reasonable and one of the turbine's locations is changed. During on site visit, the cemetery was visited. It was confirmed that the new turbine locations are the most remote locations for the village and the cemetery. In the GS Passport, the previous locations of the turbines are also presented.

Hence, this FAR was closed.

3.3 Monitoring Report

The Monitoring Report for the project activity "Gunaydin WPP", in "Turkey", version 05 of 19/10/2015 submitted by the Manres Elektrik Uretim A.S. has been the basis for the vrification process.

RINA confirms that the above MR is based on the currently valid MR template /10/ 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/. The starting date of operation and the crediting period is 01/12/2012. The turbines have been commissioned in three phases. The first phase acceptance Protocol covered 5 turbines were commissioned on 20/11/2012 /31/, the second phase acceptance Protocol covered 2 turbines were commissioned on 20/12/2014 /26/, and the third phase acceptance protocol covered 1 turbine was commissioned on 26/12/2014 /26/.

The project activity consists of 5 model of GE 2.5 MW and GE 2.75 MW wind turbines making the total installed capacity of 20 MWm/20 MWe as confirmed through the Generation License /25/. The technical details of the wind turbines given as a figure in the monitoring report is comply with the registered PDD /1/. It is confirmed during the site visit that all installed turbines are GE 2.5 and 2.75

MW turbines. 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 Mustafa Kemal Pasa Transmission Line as confirmed through the Generation License /25/.

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

The project activity has been commissioned in November 2012 with a total capacity of 12.5 MWm/10 MWe. Than the project activity has a capacity addition making the total installed capacity of 20 MWm/20 MWe with adding 3 more turbines as confirmed through the Generation License /25/.

In addition, PMUM records will be used as base since the billing is related with the PMUM records instead of monthly meter readings as defined in the registered PDD.

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:

$ERy = BEy – PEy – Ly$

Where:

BEy = Baseline emissions in year y (tCO_2e/yr)

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

Ly = 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.

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

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.

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 14.0 /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 14.0 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 05 of 19/10/2015 and the previous versions for the period of 01/05/2014 to 31/07/2015 (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 to the grid in year y (EGfacility,y)" as per the registered monitoring plan presented in the registered PDD /1/. The parameter is monitored continuously by two electricity meters that are located at Mustafa Kemal Pasa substation. The main meter is ITRON SL7000 with serial number 65000752 and the backup meter is ITRON SL7000 with serial number 65000753. The accuracy of the meters is 0.5s as confirmed through the calibration reports /21/ /22/, performed by Kesir Muhendislik. The accuracy class of the meters complies with the "Communiqué for Measurement Devices used in the Electricity Market" /19/. The electricity meters are sealed by TEIAS as confirmed during the site visit.

TEAIS 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 meters were calibrated on 13/07/2012 as confirmed through the Kesir Muhendislik Report /21/ /22/. 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 /20/. 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 PMUM records are available for the project participant. All protocols /17/ /18/ within this monitoring period was checked during the site visit. The PMUM records /17/ are crosschecked with the monthly official electricity metering reports (OSF Forms) /18/ 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 01/05/2014 to 31/07/2015 (both days included) the net electricity supplied to the grid amount to 46.259 MWh and the emission reductions to 27,754 tCO2e.

According to the monitoring plan in the registered PDD /1/ and in the monitoring report version 05 of 19/10/2015 /3/, the following sustainability parameters are monitored: "Air Quality", "Water Quality and Quantity", "Soil Condition", "Other Pollutants", "Access to Affordable and Clean Energy Services", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment".

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	0.600 tCO_2/MWh	As per the approved methodology ACM0002 version 14.0, 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 0.600 tCO_2/MWh in the registered PDD /1/ and previous verification report /8/.

3.5.3.2 Sampling plan

Not applicable.

3.5.3.3 Data and parameters monitored ex-post

DATA/PARAMETER	$EG_{facility,y}$
Data Unit	GWh
Description	Net Electricity generated and delivered to the grid by the proposed project in year y
Source of data to be used	Monthly Meter Reading Records are the main sources and PMUM (Market Financial Settlement Center) records of the main meters are cross-checked
Value data for the monitoring period	46.259
Measuring and reporting frequency; recording procedure.	Continuous measurement and monthly recordings
Type of monitoring equipment and its accuracy	The main meter is ITRON SL7000 with serial number 65000752 and the backup meter is ITRON SL7000 with serial number 65000753. The meters have the accuracy of 0.5s as confirmed through the calibration reports /21/ /22/, performed by Kesir Muhendislik.
Calibration frequency/interval	TEAIS 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 meters were calibrated on 13/07/2012 as confirmed through the Kesir Muhendislik Report /21/ /22/. 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 /20/. 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 Records /17/.
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 and the monthly official electricity metering reports /18/. The monthly reading protocols are filled by the Project personnel and sent to TEIAS. In this way, it is checked if there are inconsistencies between the values read by OSOS and the reading protocols. Also the PMUM records are available for the project participant. All protocols /17/ /18/ within this monitoring

	period was checked during the site visit. The monthly official electricity metering reports (OSF Forms) /18/ are crosschecked with the PMUM records /17/ 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.

3.5.3.4 Gold Standard sustainability monitored parameters

Data variable	**Source of Data**	**Reported value for the project period**
Air Quality SO2 and NOx emissions from grid connected plants	Electricity Generation and Calculation	• 32 tons SO_2 • 62 tons NO_x
Assessment		
SO_2 and NO_x emissions from grid connected plants: The parameter is monitored yearly by calculation with the Turkey's GHG Inventory and TEIAS Statistics. The value for this monitoring period is defined as 32 tons for SO_2 and 62 tons for NO_x.		

Data variable	**Source of Data**	**Reported value for the project period**
Water Quality and Quantity Disposal of the waste water	Waste Disposal Records	The wastewater is transported by sewage trucks
Assessment		
Disposal of the waste water: The parameter is monitored annually by assessing disposal methods during site visits and checking waste disposal records /27/. 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**
Other Pollutants Noise problem	Interview	No noise emission
Assessment		
According to the interview with the Mukhtar of the village, there is no noise complain from the stakeholders.		

Data variable	**Source of Data**	**Reported value for the project period**
Soil Condition	Correspondence with Manyas	Waste disposal are transferred to the storage area of Manyas Municipality

Amount of non-hazardous solid wastes	Municipality	
Assessment		
Amount of non-hazardous solid wastes during construction and operational phases. Appropriate management of all waste in line with regulations: The parameter is monitored annually Site visit and checking waste disposal records. During on site visit it is confirmed that the waste disposal are transferred to the storage area of Manyas Municipality /24/.		

Data variable	Source of Data	Reported value for the project period
Access to affordable and clean energy services Fossil fuel replaced	Electricity Generation and Calculation	9,755 million m^3 natural gas been used
Assessment		
Fossil fuel replaced: The parameter is monitored yearly through comparing electricity generated by proposed project and natural gas that would be used to produce the same amount of electricity by a thermal power plant. The calculation is clearly presented in the excel sheet /9/.		

Data variable	Source of Data	Reported value for the project period
Biodiversity Number of bird species and affected species	• Ornithology Reports • Interview with employees	No bird deaths was observed
Assessment		
Number of bird species and affected species: The parameter is monitored once by ornithology report. For the new commissioned turbines on February, a new ornithology report /23/ is prepared. According to the report, there is no risk for the birds.		

Data variable	Source of Data	Reported value for the project period
Quality of Employment Number of personnel certified/trained during operation phase	Certificates and attendance lists of the trainings	Employees participated to the trainings.
Assessment		
Number of personnel certified/trained during operation phase: The parameter is monitored yearly by review employment records and training documents/certificates. All the trainings /29/ /30/ during this monitoring period was provided to the verification team. All the employees attend to the trainings.		

Data variable	Source of Data	Reported value for the project period
Quantitative Employment and Income Generation	• Residence Certificates • Registration Document	11 employees are hired
Assessment		
Payments made to staff: This parameter is monitored yearly by the evaluation documents for wages paid and social security documents. It was confirmed that 11 employees are hired by the project activity and their wage was credited by Manres Elektrik A.S. as confirmed through the Social Insurance Institution /14/.		

Data variable	Source of Data	Reported value for the project period

Balance of Payments and Investment	Electricity Generation and Calculation	1.79 million €
Assessment		
Currency saving due to avoided fuel import: This parameter is monitored yearly by through comparing electricity generated by Gunaydin WPP and natural gas that would be used to produce the same amount of electricity according to baseline scenario. The value for this monitoring period is 1.79 million € as given in the monitoring report and calculated in the excel sheet /9/.		

3.5.4 Assessment of data and calculation of emission reductions

Availability of the data

All the monthly meter protocols /18/ are available for the project participant. All PMUM records /17/ within this monitoring period was checked during the site visit. The monthly meter reading protocols /18/ were crosschecked with the PMUM records /17/.

Cross-check reported data

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 /17/ and the monthly meter reading protocols /18/ 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 05 of 19/10/2015 /3/ is equivalent to 27,754 tCO2e. The reported emission reductions are 20% lower than the estimated emission reduction of 34,486 tCO2e for the period as per the registered PDD /1/. For wind power projects the reason for this decrease in emission reductions is the electricity generation was interrupted due to external weather conditions 1 month in total in all the wind turbines.

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 sewage truck invoice /27/, correspondence of Manyas Municipality /24/, ornithology reports /23/, training records /29/ /30/, social security documents /14/ 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 remotely from the electricity meters through PMUM records by the TEIAS personnel. The plant personnel records the electricity generation from the meters every day and the responsible engineer checks the figures regularly. The monthly meter reading protocols are prepared as per these readings. 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 14.0 /7/.

4 VERIFICATION AND CERTIFICATION OPINION

RINA Services Spa (RINA) has performed verification of the emission reductions reported for the project activity "Gunaydin WPP" in Turkey, GS Registration Reference N° 1178, for the period 01/05/2014 to 31/07/2015, with regard to the relevant requirements for GS activities.

The project participants of the "Gunaydin WPP" 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 9 of 02/06/2014,
- 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 05 of 19/10/2015 for the "Gunaydin WPP" project in Turkey for the period 01/05/2014 to 31/07/2015 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 14.0 of 04/10/2013 and the monitoring plan contained in the registered PDD.

Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/05/2014 to 31/07/2015 amount to 27,754 tCO_2e.

Year 2014 01/05/2014 to 31/12/2014 13,105 tCO2e

Year 2015 01/01/2015 to 31/07/2015 14,649 tCO2e

GHG Emission Reductions or Removals	**tCO_2e**
Baseline Emissions	27,754
Project Emissions	0
Leakage	0
Net GHG emission reductions or removals	**27,754**

Istanbul, 22/12/2015

Tugce KIRATLI
GS Team Leader
RINA Denizcilik ve Belgelendirme Ltd. Sti.

Genova, 23/12/2015

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/ /13/ /31/	DR	The title of the project activity is given as "Gunaydin WPP" in the Monitoring Report version 01 /3/. The title is in line with the registered PDD /1/ and previous verification report /31/. The revision number and date of the Monitoring Report seems appropriate. The registration date of the project activity is 14/06/2013 as confirmed through the GS 3-week Issuance Review Period Document of 08/09/2014 /13/. The Monitoring report form (F-CDM-MR) is in line with the latest version.	**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/ /25/ /26/ /31/	DR, CC, I	It is confirmed during the site visit performed on 29/07/2015 that project activity is implemented and operated as per the registered PDD /1/. The turbines have been commissioned in three phases. The first phase acceptance Protocol covered 5 turbines were commissioned on 20/11/2012 /31/, the second phase acceptance Protocol covered 2 turbines were commissioned on 20/12/2014 /26/, and the third phase acceptance protocol covered 1 turbine was commissioned on 26/12/2014 /26/. The project activity consists of 5 model of GE 2.5 MW and GE 2.75 MW wind turbines making the total installed capacity of 20 MWm/20 MWe as confirmed through the Generation License /25/. However, the upgraded capacity of the project given in section A.1 is not in line with the registered PDD /1/. The technical details of the wind turbines given as a figure in the monitoring report is comply with the	~~**CAR 1**~~ **OK**

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

Checklist Question		Reference	MoV[1]	Comments	Conclusion
				registered PDD /1/ for only GE 2.5 turbines. There is no explanation about the new turbines (GE 2.75 MW). It is confirmed during the site visit that all installed turbines are GE 2.5 and 2.75 MW turbines. 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 Mustafa Kemal Pasa Transmission Line as confirmed through the Generation License /25/. The UTM coordinates of the turbines are confirmed through the registered PDD /1/ and the generation license /25/. The estimated emission reduction given in the cover page and Section E.5 of Monitoring Report /3/ is not in line with the registered PDD /1/. Please re-calculate and make all the necessary changes in the monitoring report. The crediting period is defined as 01/12/2012 to 30/11/2019 which is line with the PDD. The actual emission reduction calculated in the excel sheet and given in the first page of the monitoring report is correct. However, during on site visit the project participants decided to add the months of June and July. Please re-calculate the total emission reduction and revise the monitoring period. The project milestone table is not in line with the current situation. The commissioning date of the new turbines should be added to the table. During on site visit, it was confirmed that the turbines are breakdown for two times. However, there is a miswriting explanation in section E.6 that “no major failure or operational breakdown has been experienced during this monitoring period”. Please revise.	
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 13.0.0. However, this version is not in line with the registered PDD /1/.	~~**CR 1**~~ **OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
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 14.0 /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 to the grid in year y ($EG_{facility,y}$) needs to be monitored as per the ACM0002 version 14.0.0 /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", "Access to Affordable and Clean Energy Services", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment". However, after the capacity extension, the parameter of "Other Pollutants" should be monitored. Please add.	~~**CAR 2**~~ **OK**
B.1.3	Do the sustainability indicators included in the monitoring report comply with the minimum contents specified in paragraph 4.1 of the GS toolkit?	/4 /5/	DR, CC	The project activity is developed and registered under Gold standard Version 2.1; therefore, GS Toolkit 2.1 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 01/05/2014 to 31/07/2015 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	As per the approved methodology ACM0002 version 14.0, the combined emission factor has been determined using the ex-ante option, so it is not requested to monitor and recalculate the emission	**OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
				factors during this crediting period. The combined emission factor is determined to be 0.600 tCO_2/MWh in the registered PDD /1/ and validation report /8/. ***Amount of fuels consumed by thermal power plants for electricity generation in terms of fossil fuel type i in year y ($FC_{i,y}$):*** It ıs based on TEIAS statistics and used for calculating $NCV_{i,y}$. ***Net electricity generated and delivered to the grid by all power sources serving the system, not including low-cost/must run power plants in year y (EGy):*** Net electricity fed into the grid used for the calculation of the net/gross relation is based on TEIAS web site. ***CO2 emission factor of fossil fuel type "i" in year "y" ($EF_{CO2,i,y}$):*** The parameter is based on IPCC default values as confirmed through the PDD /1/. ***Average net energy efficiency of power unit m in year y ($\eta_{m,y}$):*** The parameter is based on "Tool to calculate the emission factor for an electricity system as confirmed through the PDD /1/. ***Net calorific value (energy content) of fossil fuel type i in year y ($NCV_{i,y}$):*** It is calculated with TEIAS statistics.	
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/	DR, CC, I	***Net Electricity generated and delivered to the grid by the proposed project in year y ($EG_{facility,y}$):*** The electricity generation and electricity consumption is measured in GWh and it is monitored by two electricity meters that are located at Mustafa Kemal Pasa substation. However, the source of data of the parameter stated as "monthly records signed by TEIAS and plants manager and invoices are used" in the monitoring report is not in line with the registered PDD. Please revise. In addition, please also add an explanation to section B.2.2 Corrections about the source of data that will use for the calculation of net electricity generation.	~~**CR 2**~~ **OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
B.3.2	Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate?	/3/	DR, CC,I	Two electricity meters are installed at Mustafa Kemal Pasa substation. The project owner can also read the generation electricity remotely. However, during on site visit the electricity meters could not be confirmed since they are far from the project area and under responsible of TEIAS. Please give a reference (such as photo) to confirm the electricity meters.	~~**CR 3**~~ **OK**
B.3.3	Are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate?	/1/ /3/ /18/ /21/ /22/	DR, CC,I	TEIAS is responsible for calibration and maintenance of the devices as per the registered PDD /1/. The project owner has no control on the meters since the meters are sealed by the TEIAS as confirmed during the site visit. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. During this monitoring period no discrepancy was occurred as confirmed through the monthly meter readings /18/. The calibration reports given by Kesir Muhendislik on 13/07/2012 for the ITRON SL7000 electricity meters with a serial no 65000752 and 65000753 /21/ /22/ have been provided to the Verification team. It could be confirmed that the electricity meters were calibrated before installation.	**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 (reading in real time) by two 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/ /18/	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 and the monthly official electricity metering reports /18/ is prepared. The monthly reading protocols are filled by the Project personnel and sent to TEIAS. In this way, it is checked if there are inconsistencies between the values read by OSOS and the reading protocols.	**OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
				The plant staff explained the monitoring procedures during the site visit. As confirmed through the observation, the plant personnel records the electricity generation from the meters and fills the monthly reading protocols.	
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	/2/ /3/ /9/ /14/ /23/ /24/ /27/ /29/ /30/	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", "Access to Affordable and Clean Energy Services", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment". **Air Quality:** *SO_2 and NO_x emissions from grid connected plants:* The parameter is monitored yearly by calculation with the Turkey's GHG Inventory and TEIAS Statistics. The value for this monitoring period is defined as 27 tons for SO_2 and 52 tons for NO_x. However, the total electricity generation will be revised since two months are added. Please re-calculate. **Water Quality and Quantity:** *Disposal of the waste water:* The parameter is monitored annually by assessing disposal methods during site visits and checking waste disposal records /27/. It is confirmed that the waste water is stored in a septic tank on site and disposed of periodically with vacuum. However, the date of the invoice given in the current situation is belongs to the previous monitoring period. Please revise. **Soil Condition:** *Amount of non-hazardous solid wastes during construction and operational phases. Appropriate management of all waste in line with regulations:* The parameter is monitored annually Site visit and checking waste disposal records. During on site visit it is	~~**CAR 3**~~ **OK**

Checklist Question	Reference	MoV[1]	Comments	Conclusion
			confirmed that the waste disposal are transferred to the storage area of Manyas Municipality /24/. **Access to affordable and clean energy services:** *Fossil fuel replaced:* The parameter is monitored yearly through comparing electricity generated by proposed project and natural gas that would be used to produce the same amount of electricity by a thermal power plant. **Biodiversity :** *Number of bird species and affected species:* The parameter is monitored once by ornithology report. For the new commissioned turbines on February, a new ornithology report /23/ is prepared. According to the report, there is no risk for the birds. **Quality of Employment:** *Number of personnel certified/trained during operation phase:* The parameter is monitored yearly by review employment records and training documents/certificates. All the trainings /29/ /30/ during this monitoring period was provided to the verification team. However, all the employees do not attend to the health and safety trainings. Please clarify why “Ersem Uğuz, “Mehmet Selvi”, “Hasan Alsan” and “Volkan Baskaya” do not attend to the trainings. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. Please clarify. **Quantitative Employment and Income Generation:** *Payments made to staff:* This parameter is monitored yearly by the evaluation documents for wages paid and social security documents. It was confirmed that 11 employees are hired by the project activity and their wage was credited by Manres Elektrik A.S. as confirmed through the Social Insurance Institution /14/.	

Checklist Question		Reference	MoV[1]	Comments	Conclusion
				Balance of payments and investment: *Currency saving due to avoided fuel import:* This parameter is monitored yearly by through comparing electricity generated by Gunaydin WPP and natural gas that would be used to produce the same amount of electricity according to baseline scenario. The value for this monitoring period is 1.866 million € as given in the monitoring report and calculated in the excel sheet /9/. However, the value of "Exchange Rate for Investment date" could not be verified since the link given in the calculation excel sheet is not available.	
B.4.2	Is the montiroing 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 29/07/2015 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 two meters. 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 project manager explained the monitoring procedures during the site visit. As confirmed through the observation, the plant staff monitors and records the data at the end of each month from both meters, fills the forms and compares the values for consistency. Also, the data was measured hourly, transferred to excel and reported daily. The responsible engineer performs regular checks of this procedure each month. If any difference occurs between the two meters, TEIAS has to be informed.	**OK**
B.5.3	Are the data management and quality assurance and	/1/ /3/ /17/	DR, I	The generated electricity is measured by two meters that	**OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
	quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?	/18/		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 /17/ on the web site. The project owner also archives a hardcopy of the monthly official electricity metering reports /18/, scanned and stored electronically.	
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 monitoring report /3/ and registered PDD /1/ line with the ACM0002 version 14.0.0 /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 The project activity consists of 5 model of GE 2.5 MW and GE 2.75 MW wind turbines making the total installed capacity of 20 MWm/20 MWe as confirmed through the Generation License /25/. However, the upgraded capacity of the project given in section A.1 is not in line with the registered PDD /1/. The technical details of the wind turbines given as a figure in the monitoring report is comply with the registered PDD /1/ for only GE 2.5 turbines. There is no explanation about the new turbines (GE 2.75 MW). The estimated emission reduction given in the cover page and Section E.5 of Monitoring Report /3/ is not in line with the registered PDD /1/. Please re-calculate and make all the necessary changes in the monitoring report. The actual emission reduction calculated in the	A.2	Section A.1 is updated according to the latest «Generetaion Capacity Report». Total installed capacity added to the this section as 20,75 MWm/20MWe, which states in the capacity report page 6. The technical details of the wind turbines for GE 2.75 MW is added. Estimated emission reduction given in the cover page is updated. Emission reduction is calculated by considering 10 MW capacity until 20/12/2014, rest of the year, 20 MW capacity is taken into account in emission reduction calculations. In other words, 01/05/2014 – 20/12/2014 emission reduction is calculated 14057 tCO_2e, This date to 31/12/2014 ER is calculated 1004 tCO_2e.	**Review 1 (18/08/2015):** The upgraded capacity of the project given in section A.1 is now in line with the registered PDD /1/ and generation license. The technical details for GE 2.75 turbines are now presented in the monitoring report. The estimated emission reduction given in the cover page is not in line with the given explanation in Table 2. Please clearly explain the calculation. The months of June and July are now added to the calculation. The PMUM and monthly meter reading for July is provided to the verification team. However, the PMUM record for the month of June is not provided to the verification team. In addition, the version and the date of the

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
excel sheet and given in the first page of the monitoring report is correct. However, during on site visit the project participants decided to add the months of June and July. Please re-calculate the total emission reduction and revise the monitoring period. The project milestone table is not in line with the current situation. The commissioning date of the new turbines should be added to the table. During on site visit, it was confirmed that the turbines are breakdown for two times. However, there is a miswriting explanation in section E.6 that "no major failure or operational breakdown has been experienced during this monitoring period". Please revise.		Overall, emission reduction of 7 months of 2014 is calculated 15061 tCO_2e. As it is required, June and July is added to the emission reduction calculations. Project milestone table is updated and commisioning date of the new turbines are added. Information about breakdown incidence due to the extreme weather events is in place in the monitoring plan.	excel sheet are not revised. The monthly meter reading values are not added to the calculation excel sheet to crosscheck the difference between two calculations of PMUM and Monthly Meter Readings. The project milestone table is now revised to be in line with the current situation. The commissioning date of the new turbines is now added to the milestone. However, there is no supporting document to confirm the "Start of Construction for Extension". Please provide. Necessary explanation is given for the breakdowns of the turbines in section E.6 of the monitoring report. **Hence, CAR 1 is not closed.** **Review 2 (17/09/2015):** The estimated emission reduction given in the cover page is now in line with the registered PDD. The PMUM record for the month of June is now provided to the verification team and is confirmed with the calculation excel sheet. In addition, the version and the date of the excel sheet are now revised. The monthly meter reading values are now added to the calculation excel sheet to crosscheck the difference between two calculations of PMUM and Monthly Meter Readings. The supporting document is now provided to confirm the "Start of Construction for Extension". **Hence, CAR 1 is closed.**

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
CAR 2 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", "Access to Affordable and Clean Energy Services", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment". However, after the capacity extension, the parameter of "Other Pollutants" should also be monitored. Please add.	B.1.2	Noise level is added as an other pollutants. PP Response 18/08/2015 Estimated emission reduction part has been updated. 2014 emission reduction has been calculated based on original projet design (10Mwe) upto 20/12/2014 and 20Mwe between 20/12/2014-31/07/2015 PMUM for june provided with v3 of the report. Values of monthly readings added. Start of construction is updated and dailt report submitted as proof.. **PP Response 2 17/09/2015** «Other Pollutants» section is updated and the section is in line with the registered PDD.	**Review 1 (18/08/2015):** The parameter of "Other Pollutants" is now added to the monitoring report. However, the mitigation measure, the chosen parameter and way of monitoring is not in line with the registered PDD. Please revise. **Hence, CAR 2 is not closed.** **Review 2 (7/09/2015):** The given response is not related with this CAR. The parameter of "Other Pollutants" is now added to the monitoring report. However, the mitigation measure, the chosen parameter and way of monitoring is not in line with the registered PDD. Please revise. **Hence, CAR 2 is not closed.** **Review 3 (18/09/2015):** The mitigation measure, the chosen parameter and way of monitoring is now in line with the registered PDD. **Hence, CAR 2 is closed.**
CAR 3 **Air Quality:** *SO_2 and NO_x emissions from grid connected plants:* The parameter is monitored yearly by calculation with the Turkey's GHG Inventory and TEIAS Statistics. The value for this monitoring period is defined as 27 tons for SO_2 and 52 tons for NO_x. However, the total electricity generation	B.4.1	SOx and NOx values are updated according to the latest electricity generation.	**Review 1 (18/08/2015):** **Air Quality:** *SO_2 and NO_x emissions from grid connected plants:* This parameter is related with the generated electricity. Therefore, it will be reviewed after the generation is confirmed. **Water Quality and Quantity:**

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
will be revised since two months are added. Please re-calculate. **Water Quality and Quantity:** *Disposal of the waste water:* The parameter is monitored annually by assessing disposal methods during site visits and checking waste disposal records /27/. It is confirmed that the waste water is stored in a septic tank on site and disposed of periodically with vacuum. However, the date of the invoice given in the current situation is belongs to the previous monitoring period. Please revise. **Quality of Employment:** *Number of personnel certified/trained during operation phase:* The parameter is monitored yearly by review employment records and training documents/certificates. All the trainings /29/ /30/ during this monitoring period was provided to the verification team. However, all the employees do not attend to the health and safety trainings. Please clarify why "Ersem Uğuz, "Mehmet Selvi", "Hasan Alsan**"** and "Volkan Baskaya" do not attend to the trainings. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. Please clarify. **Balance of payments and investment:** *Currency saving due to avoided fuel import:* This parameter is monitored yearly by through comparing electricity generated by Gunaydin WPP and natural gas that would be used to produce the same amount of electricity according to baseline scenario. The value for this monitoring period is 1.866 million € as given in the monitoring		The invoice belongs to the April 2015 is provided. Some of our personnel is shift-workers. Hence, they might not be able to attend some of the trainings however, personnel who are not able to attend the trainings are identified every end of the year and training is provided the missing personnel. Ersem Uğuz is «Management Director» of Serin and Manres Energy, Hasan Aslan is an «Officer» in the İstanbul Office, Volkan Başkaya is «General Manager» of facilities and based in İstanbul Office. Health and safety training was conducted in 28/05/2014 and further training is planing in 2015, September. The link is provided.	*Disposal of the waste water:* The date of the invoice given in the current situation is belongs to the previous monitoring period. The documentation is provided, however, the given information in the monitoring report shall also be revised. **Quality of Employment:** *Number of personnel certified/trained during operation phase:* All the employees shall attend to the Health and Safety trainings. Therefore, this parameter will be monitored during the next verification period. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. Please clarify. **Balance of payments and investment:** *Currency saving due to avoided fuel import:* The value of "Exchange Rate for Investment date" is now added to the calculation excel sheet. However, it could not be verified since the value given in the calcualtion is not in line with the reference. **Hence, CAR 3 is not closed.** **Review 2 (17/09/2015):** **Air Quality:** *SO_2 and NO_x emissions from grid connected plants:* This parameter and the calcualtion are confirmed. **Water Quality and Quantity:** *Disposal of the waste water:* The date of

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
report and calculated in the excel sheet /9/. However, the value of "Exchange Rate for Investment date" could not be verified since the link given in the calculation excel sheet is not available.		PP Response 18/08/2015 Report updated for disposal of wastewater. This is target, not a commtiment and there is no intrinsic date. And as explained, studies are going on for certification. Exchange rate has been updated. **PP Response 2 17/09/2015** Water Quality and Quantity: The invoices were added in relation to 2014.	the invoice is revised for only the year of 2015. However, 2 more invoices were provided to DOE related to 2014. Please also present them. **Quality of Employment:** *Number of personnel certified/trained during operation phase:* All the employees shall attend to the Health and Safety trainings. Therefore, this parameter will be monitored during the next verification period. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. **Balance of payments and investment:** *Currency saving due to avoided fuel import:* The value of "Exchange Rate for Investment date" is now verified. **Hence, CAR 3 is not closed and a FAR is raised.** **Review 3 (18/09/2015):** **Water Quality and Quantity:** *Disposal of the waste water:* The date of the invoices are now presented in the monitoring report. **Hence, CAR 3 is closed.**
CR 1 The registered project activity applies the approved baseline and monitoring methodology ACM0002 version 13.0.0. However, this version is not in line with the registered PDD /1/.	A.3	Version was corrected.	**Review 1 (17/08/2015):** The registered project activity applies the approved baseline and monitoring methodology ACM0002 version 14.0 and now this version is in line with the

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
			registered PDD /1/. **Hence, CR 1 is closed.**
CR 2 ***Net Electricity generated and delivered to the grid by the proposed project in year y ($EG_{facility,y}$):*** The electricity generation and electricity consumption is measured in GWh and it is monitored by two electricity meters that are located at Mustafa Kemal Pasa substation. However, the source of data of the parameter stated as "monthly records signed by TEIAS and plants manager and invoices are used" in the monitoring report is not in line with the registered PDD. Please revise. In addition, please also add an explanation to section B.2.2 Corrections about the source of data that will use for the calculation of net electricity generation.	B.3.1	The statement is made compatible as in line in the registered PDD. Explanation is added in Section B.2.2 PP Response 18/08/2015 Clarification added to section B.2.2	**Review 1 (18/08/2015):** ***Net Electricity generated and delivered to the grid by the proposed project in year y ($EG_{facility,y}$):*** The source of data of the parameter is now in line with the registered PDD. However, the given explanation in section "B.2.2 Corrections" is not clearly identified. The explanation shall include the base document (PMUM or Monthly Meter Reading) used in the calculation of net electricity generation. During on site visit, PP decided to use PMUM records for the calcualtion. However, according to the registered PDD, monthly meter readings are defined for the calculation. Therefore, if PMUM is used, it is requested to add an explanation to B.2.2 correction part. If monthly meter readings are used, there is no need to change. **Hence, CR 2 is not closed.** **Review 2 (17/09/2015):** The given explanation in section "B.2.2 Corrections" is now clearly identified. **Hence, CR 2 is closed.**
CR 3 Two electricity meters are installed at Mustafa Kemal Pasa substation. The project owner can also read the generation electricity remotely. However, during on site visit the electricity meters could not be confirmed since they are far from the project area and under responsible of TEIAS. Please give a reference (such as photo) to	B.3.2	Photo is provided.	**Review 1 (17/08/2015):** The serial no of the electricity meters could be confirmed with the PMUM and monthly meter readings. In addition, the photos of the electricity meters are now provided to the verification team. **Hence, CR 3 is closed.**

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
confirm the electricity meters.			

TABLE 3 FORWARD ACTION REQUEST

Forward action request	Reference to Table 1	Response by project participants Verification conclusion
FAR 1 All the employees shall attend to the Health and Safety trainings. Therefore, this parameter will be monitored during the next verification period. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. Therefore, this parameter will also be monitored during the next verification period.	B.4.1	Trainings are organized periodically by project owner. Trainings for new period are under planning and will be declared during next verification. **RINA Opinion:** This parameter will be monitored during the next verification.

CERTIFICATO DI QUALIFICA
QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra: *We declare that Mr/Mrs/Ms:*	**Tugce Kiratli**
è qualificato come[1]: *is qualified as:*	**VCS/GS-TEC, VCS-VAL, VCS-VER, GS-VAL, GS-VER, GS-TL, VCS-TL, SCS – TEC, SCS-VAL, SCS-VER, SCS-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

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	26/11/2012	-
6	08/06/2015	Update qualification according new AS 6.0

Il Resp. QPT
Head of QPT

[1] Legend:

VAL:	Validator	CDM: Clean Development Mechanism
VER:	Verifier	VCS : Verified Carbon Standard:
TEC:	Technical Expert	GS: Gold Standard
TL:	Team Leader	SCS: SocialCarbon Standard
FIN-EXP:	Financial Expert	JI: Joint Implementation
DET:	Determiner	

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, -VAL, -VER, -TL TECHNICAL REVIEWER**
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	Renewables	1
13.1	Solid Waste and waste water	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	-
9	22-12-2014	Update qualification according to AS ver.6.0

Il Resp. QPT
Head of QPT

[1] Legend:

VAL:	Validator	CDM: Clean Development Mechanism
VER:	Verifier	VCS : Verified Carbon Standard:
TEC:	Technical Expert	GS: Gold Standard
TL:	Team Leader	SCS: SocialCarbon Standard
FIN-EXP:	Financial Expert	JI: Joint Implementation
DET:	Determiner	

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Final

"Gunaydin WPP"
in
Turkey

Monitoring period: 01/05/2014 to 31/07/2015

Report N°2015-TQ-07-MD

Revision N°1.4 Aa

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Project Title:	Country:	Estimated VERs (tCO2e):
Gunaydin WPP	Turkey	34,486
GS Registration Reference N°:	**Monitoring period:**	**Certified VERs (tCO2e):**
1178	01/05/2014 to 31/07/2015	27,754
Client:	**Client contact:**	
Manres Elektrik Uretim A.S.	Burcu ISIK	
Report No.:	**Revision:**	**Date of this report:**
2015-TQ-07-MD	1.4 Aa	22/12/2015
Approved by (Final Report – AO Authorized office signing for the DOE):		**Date of approval:**
Laura SEVERINO		23/12/2015

Methodology

Number:	Version:	Title:	Scale	SS(s):
ACM0002	14.0.0 of 04/10/2013	Grid-connected electricity generation from renewable sources	Large	1

RINA Services S.p.A. (RINA), commissioned by Manres Elektrik Uretim A.S., has verified the greenhouse gas emission reductions reported for the project activity "Gunaydin WPP" in Turkey, GS Registration Reference N° 1178, for the period 01/05/2014 to 31/ 07/2015, 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 RINA (validation report N° 2012-TQ-16- MD, version 1.2 of 25/07/2013) and it was registered on 14/06/2013 under the GS registration reference N° 1178.

The GHG emission reductions were calculated on the basis of the approved methodology ACM0002, version 14.0, "Grid-connected electricity generation from renewable sources" of 04/10/2013 and the monitoring plan included in the registered Project Design Document, version 9 of 02/06/2014.

In conclusion, it is RINA's opinion that the project activity "Gunaydin WPP", as described in the Monitoring Report version 05 of 19/10/2015, 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 14.0 of 04/10/2013. Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/05/2014 to 31/07/2015 amount to 27,754 tCO_2e.

Baseline Emissions	27,754	tCO_{2e}
Project Emissions	0	tCO_{2e}
Leakage	0	tCO_{2e}
Net GHG emission reductions/removal	27,754	tCO_{2e}

Work carried out by:	
Tugce KIRATLI	☒ No distribution without permission from the Client or organizational unit responsible ☐ Strictly confidential ☐ Unrestricted distribution

Work verified by (Final Report – Scheme Manager)	Keywords:
Rita VALOROSO	Climate Change, Kyoto Protocol, Verification, Gold Standard

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

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_2e	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
PP(s)	Project Participant(s)
PMUM	Market Financial Conciliation Center (Piyasa Mali Uzlastirma Merkezi)
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)

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

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Appendix A: Gold Standard Verification Protocol

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

1 INTRODUCTION

Manres Elektrik Uretim A.S. has commissioned RINA to carry out the verification and certification of emission reductions reported for the registered “Gunaydin WPP” project in Turkey, GS Registration Reference N° 1178, for the period 01/05/2014 to 31/ 07/2015.

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 “Gunaydin WPP” project in Turkey for the period 01/05/2014 to 31/07/2015.

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.

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 05 of 19/10/2015 /3/, the emission reduction calculations provided in the form of a spreadsheet "Conf _Gunaydin_VER_Calcs_Monitoring_Report_19102015_v5.xlsx" version 5.0 of 19/10/2015 /9/, the approved baseline and monitoring methodology ACM0002 version 14.0 of 04/10/2013 /7/ and all the documentation provided to support the monitoring period /1 – 33/ were assessed as part of the verification. In addition, the Project Design Document (PDD) version 09 of 02/06/2014 /1/, in particular as regards the baseline estimations and the monitoring plan, the Passport, version 06 of 02/06/2014 /2/ and the validation report revision 1.2 of 25/07/2013 /8/ for the project, were reviewed.

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

/1/	Global Tan Energy Ltd.: GS-PDD for " Gunaydin WPP" in Turkey, version 09 of 02/06/2014
/2/	Global Tan Energy Ltd.: Gold Standard Passport for Project Activity " Gunaydin WPP" in Turkey, version 06 of 02/06/2014
/3/	Global Tan Energy Ltd.: Monitoring Report for "Gunaydin WPP" in Turkey, version 04 of 17/09/2015 Global Tan Energy Ltd.: Monitoring Report for "Gunaydin WPP" in Turkey, version 03 of 18/08/2015 Global Tan Energy Ltd.: Monitoring Report for "Gunaydin WPP" in Turkey, version 02 of 05/08/2015 Global Tan Energy Ltd.: Monitoring Report for "Gunaydin WPP" in Turkey, version 01 of 15/06/2015
/4/	Gold Standard Foundation: Gold Standard Requirements, version 2.1 of 01/07/2009
/5/	Gold Standard Foundation: Gold Standard Toolkit, version 2.1 of 01/07/2009
/6/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard, version 09.0 of 20/02/2015
/7/	CDM Executive Board: Baseline and monitoring methodology "ACM0002", "Grid-connected electricity generation from renewable sources", version 14.0 of 04/10/2013
/8/	RINA: Validation Report for "10 MW Gunaydin WPP" No. 2012-TQ-16-MD, version 1.2 of 25/07/2013
/9/	Global Tan Energy Ltd.: Emission Reduction Calculation Spreadsheet "Conf _Gunaydin_VER_Calcs_Monitoring_Report_19102015_v5.xlsx" version 05 submitted on 19/10/2015 Global Tan Energy Ltd.: Emission Reduction Calculation Spreadsheet "Conf _Gunaydin_VER_Calcs_Monitoring_Report_2_18082015_v2.xlsx" version 02 submitted on 18/08/2015 Global Tan Energy Ltd.: Emission Reduction Calculation Spreadsheet "Conf _Gunaydin_VER_Calcs_Monitoring_Report_2_15062015_v1.xlsx" version 01 submitted on 19/06/2015
/10/	CDM Executive Board: Guideline for Completing the Monitoring Report Form, version 05.1 of 04/05/2015
/11/	CDM Executive Board: Methodological Tool "Tool to calculate the emission factor for an electricity system", version 02.2.1 of 29/08/2011

/12/	CDM Executive Board: Methodological Tool " Tool for the demonstration and assessment of additionality", version 06.0.0 of 25/11/2011
/13/	The Gold Standard Foundation: Gunaydin WPP, Turkey (GS1178) 3-week Issuance Review Period Document of 08/09/2014
/14/	Social Insurance Institution: Registration Document for 20 Employees of 04/2015
/15/	Provincial Directorate of Environment and Urban Planning: EIA Not Required Article of 25/01/2012
/16/	Provincial Directorate of Environment and Urban Planning: EIA Not Required Amended Article of 18/11/2014
/17/	Market Financial Conciliation Center (PMUM): Monthly Electricity Records within the Monitoring Period (from 01/05/2014 to 31/07/2015)
/18/	Turkish Electricity Transmission Company (TEIAS): Monthly Meter Readings within the Monitoring Period (from 01/05/2014 to 31/07/2015)
/19/	Energy Market Regulatory Authority: Communiqué for Measurement Devices used in the Electricity Market of 22/03/2003
/20/	The Ministry of Trade and Industry: Regulation of Metering and Testing of Metering Systems of 24/07/1994
/21/	Kesir Muhendislik: Calibration Certificate of Electricity Meter with a Serial No: 65000752 of 13/07/2012
/22/	Kesir Muhendislik: Calibration Certificate of Electricity Meter with a Serial No: 65000753 of 13/07/2012
/23/	Doga Arastirmalari Dernegi (Nature Research Society): Ornithology Report of 02/2015
/24/	Manyas Municipality: Correspondence About Waste Disposal Transportation, no: M.10.6.MAN.0.13 of 26/11/2013
/25/	Energy Market Regulatory Authority: Generation License EU/3490-17/2141 of 11/11/2011 amended on 20/03/2014 (based on 20 MWe/20 MWm installed capacity)
/26/	The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 20/12/2014 (2 Turbines) The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 26/12/2014 (1 Turbines)
/27/	Gulmus Nakl. Ins. Tur. Taah. Tic. San. Ltd. Sti.: Invoices of Sewage Truck, No: 40490 of 14/10/2014 Gulmus Nakl. Ins. Tur. Taah. Tic. San. Ltd. Sti.: Invoices of Sewage Truck, No: 33945 of 09/12/2014
/28/	General Directorate of Balikesir Water and Sewerage Administration: Invoices of Sewage Truck of 07/04/2015
/29/	Ilk Dost OSGB: Training Participation Certificate for 7 Employees of 28/05/2014
/30/	Provincial Health Directorate: First Aid Training for 3 Employees of 05/06/2014
/31/	RINA: Final Verification Report for the Monitoring Period of 01/12/2012 to 30/04/2014, of 29/08/2014
/32/	Photo of the Electricity Meters of the Project Activity, submitted on 11/08/2015
/33/	Daily Report for Confirming First Date of the Construction of 21/08/2014

2.2 On-site assessment

On 29/07/2015, RINA visited project site located at Yaylakoy Village of Manyas District within boundaries of Balikesir Province. 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 29/07/2015. The project employee were interviewed about the implementation status of the project, monitoring equipment and operation, generated electricity, monitoring of gold standard parameters, wastewater disposal, waste disposal, death birds, payments made to staff and trainings given to the employment.

In addition, the muhktar was interviewed about benefits of the project activity and the turbine locations changed by project owner. He explained that after the stakeholders request, the turbine location where is the nearest to the cemetery is changed. In addition, he mentioned that all the stakeholders were satisfied with the project activity. In addition, he confirmed that there is no noise complain from the stakeholders.

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

	Date	Name and Role	Organization	Topic
/a/	29/07/2015	Gani ELDELEKLIOGLU *The Consultant*	GTE Carbon	Implementation status of the project Monitoring equipments and operation Generated Electricity Monitoring of Gold Standard Parameters Wastewater Disposal Waste Disposal Death Birds Trainings Payments
/b/	29/07/2015	Zeynep Naz CANSEVER *The Consultant*	GTE Carbon	
/c/	29/07/2015	Aysun KARASOY *Operation Specialist*	Manres Elektrik A.S.	
/d/	29/07/2015	Burcu ISIK *Business Development Specialist Assistant*	Manres Elektrik A.S.	
/e/	29/07/2015	Ersem UĞUZ *Operation Manager*	Manres Elektrik A.S.	
/f/	29/07/2015	Selahatdin BASARAN *The Mukhtar*	Yayla Village	Benefits of the project activity Local Employment and Payments Change in Turbine Locations Noise Emission Capacity Extension
/g/	29/07/2015	Umit TANRIVERDI *Local Employee*	Manres Elektrik A.S.	

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.

GOLD STANDARD VERIFICATION/CERTIFICATION 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.

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

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.

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, GS Verifier, Technical Expert (TA 1.2)	Kiratli	Tugce	X	X	X	X	-	-
Technical Reviewer TA 1.2	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 01/05/2014 to 31/07/2015 as documented and described in the monitoring report version 05 of 19/10/2015 /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)	Manres Elektrik Uretim A.S. Global Tan Energy Ltd.		
Project Title	Gunaydin WPP		
Location of the project	Manyas District, Balikesir Province, Turkey		
Methodology(ies)	ACM0002, "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 14.0 of 04/10/2013 /7/		
Sectoral Scope(s)	1	**RINA's Technical Area(s)**	1.2
Registered PDD	Revision 09 of 02/06/2014		
Date of registration	14/06/2013	**GS Registration Reference N°**	1178

Starting date of the crediting period	01/12/2012
Project's crediting period	01/12/2012 to 30/11/2019
Monitoring period	01/05/2014 to 31/07/2015
Project documentation link	https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000001752

The project activity is a wind power plant consists of 5 GE 2.5 MW and 3 GE 2.75 MW wind turbines with a total capacity of 20 MWm/20 MWe as confirmed through the Generation License /25/. The generated electricity is fed to the national grid. The estimated net electricity production is 55,500 MWh and the annual emission reductions are estimated to be 33,300 tCO_2e 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 Gold Standard Foundation /13/, 1 FAR was raised during the capacity extension and previous verification period. All FARs have been closed successfully.

FAR#1: DOE to carry out interviews with locals to enquire about the location of the project extension to make sure the cemetery has not been disturbed and cross check that the project location is not an issue for the local stakeholders'.

During on capacity extension period, the stakeholders are concerned about the cemetery and request for the turbine locations not too close to the cemetery. The PP has found the request reasonable and one of the turbine's locations is changed. During on site visit, the cemetery was visited. It was confirmed that the new turbine locations are the most remote locations for the village and the cemetery. In the GS Passport, the previous locations of the turbines are also presented.

Hence, this FAR was closed.

3.3 Monitoring Report

The Monitoring Report for the project activity "Gunaydin WPP", in "Turkey", version 05 of 19/10/2015 submitted by the Manres Elektrik Uretim A.S. has been the basis for the vrification process.

RINA confirms that the above MR is based on the currently valid MR template /10/ 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/. The starting date of operation and the crediting period is 01/12/2012. The turbines have been commissioned in three phases. The first phase acceptance Protocol covered 5 turbines were commissioned on 20/11/2012 /31/, the second phase acceptance Protocol covered 2 turbines were commissioned on 20/12/2014 /26/, and the third phase acceptance protocol covered 1 turbine was commissioned on 26/12/2014 /26/.

The project activity consists of 5 model of GE 2.5 MW and GE 2.75 MW wind turbines making the total installed capacity of 20 MWm/20 MWe as confirmed through the Generation License /25/. The technical details of the wind turbines given as a figure in the monitoring report is comply with the registered PDD /1/. It is confirmed during the site visit that all installed turbines are GE 2.5 and 2.75

MW turbines. 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 Mustafa Kemal Pasa Transmission Line as confirmed through the Generation License /25/.

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

The project activity has been commissioned in November 2012 with a total capacity of 12.5 MWm/10 MWe. Than the project activity has a capacity addition making the total installed capacity of 20 MWm/20 MWe with adding 3 more turbines as confirmed through the Generation License /25/.

In addition, PMUM records will be used as base since the billing is related with the PMUM records instead of monthly meter readings as defined in the registered PDD.

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:

$ERy = BEy – PEy – Ly$

Where:

BEy = Baseline emissions in year y (tCO_2e/yr)

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

Ly = 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.

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

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.

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 14.0 /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 14.0 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 05 of 19/10/2015 and the previous versions for the period of 01/05/2014 to 31/07/2015 (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 to the grid in year y (EGfacility,y)" as per the registered monitoring plan presented in the registered PDD /1/. The parameter is monitored continuously by two electricity meters that are located at Mustafa Kemal Pasa substation. The main meter is ITRON SL7000 with serial number 65000752 and the backup meter is ITRON SL7000 with serial number 65000753. The accuracy of the meters is 0.5s as confirmed through the calibration reports /21/ /22/, performed by Kesir Muhendislik. The accuracy class of the meters complies with the "Communiqué for Measurement Devices used in the Electricity Market" /19/. The electricity meters are sealed by TEIAS as confirmed during the site visit.

TEAIS 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 meters were calibrated on 13/07/2012 as confirmed through the Kesir Muhendislik Report /21/ /22/. 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 /20/. 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 PMUM records are available for the project participant. All protocols /17/ /18/ within this monitoring period was checked during the site visit. The PMUM records /17/ are crosschecked with the monthly official electricity metering reports (OSF Forms) /18/ 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 01/05/2014 to 31/07/2015 (both days included) the net electricity supplied to the grid amount to 46.259 MWh and the emission reductions to 27,754 tCO2e.

According to the monitoring plan in the registered PDD /1/ and in the monitoring report version 05 of 19/10/2015 /3/, the following sustainability parameters are monitored: "Air Quality", "Water Quality and Quantity", "Soil Condition", "Other Pollutants", "Access to Affordable and Clean Energy Services", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment".

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	0.600 tCO_2/MWh	As per the approved methodology ACM0002 version 14.0, 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 0.600 tCO_2/MWh in the registered PDD /1/ and previous verification report /8/.

3.5.3.2 Sampling plan

Not applicable.

3.5.3.3 Data and parameters monitored ex-post

DATA/PARAMETER	$EG_{facility,y}$
Data Unit	GWh
Description	Net Electricity generated and delivered to the grid by the proposed project in year y
Source of data to be used	Monthly Meter Reading Records are the main sources and PMUM (Market Financial Settlement Center) records of the main meters are cross-checked
Value data for the monitoring period	46.259
Measuring and reporting frequency; recording procedure.	Continuous measurement and monthly recordings
Type of monitoring equipment and its accuracy	The main meter is ITRON SL7000 with serial number 65000752 and the backup meter is ITRON SL7000 with serial number 65000753. The meters have the accuracy of 0.5s as confirmed through the calibration reports /21/ /22/, performed by Kesir Muhendislik.
Calibration frequency/interval	TEAIS 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 meters were calibrated on 13/07/2012 as confirmed through the Kesir Muhendislik Report /21/ /22/. 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 /20/. 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 Records /17/.
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 and the monthly official electricity metering reports /18/. The monthly reading protocols are filled by the Project personnel and sent to TEIAS. In this way, it is checked if there are inconsistencies between the values read by OSOS and the reading protocols. Also the PMUM records are available for the project participant. All protocols /17/ /18/ within this monitoring

	period was checked during the site visit. The monthly official electricity metering reports (OSF Forms) /18/ are crosschecked with the PMUM records /17/ 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.

3.5.3.4 Gold Standard sustainability monitored parameters

Data variable	**Source of Data**	**Reported value for the project period**
Air Quality SO2 and NOx emissions from grid connected plants	Electricity Generation and Calculation	• 32 tons SO_2 • 62 tons NO_x
Assessment		
SO_2 and NO_x emissions from grid connected plants: The parameter is monitored yearly by calculation with the Turkey's GHG Inventory and TEIAS Statistics. The value for this monitoring period is defined as 32 tons for SO_2 and 62 tons for NO_x.		

Data variable	**Source of Data**	**Reported value for the project period**
Water Quality and Quantity Disposal of the waste water	Waste Disposal Records	The wastewater is transported by sewage trucks
Assessment		
Disposal of the waste water: The parameter is monitored annually by assessing disposal methods during site visits and checking waste disposal records /27/. 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**
Other Pollutants Noise problem	Interview	No noise emission
Assessment		
According to the interview with the Mukhtar of the village, there is no noise complain from the stakeholders.		

Data variable	**Source of Data**	**Reported value for the project period**
Soil Condition	Correspondence with Manyas	Waste disposal are transferred to the storage area of Manyas Municipality

Amount of non-hazardous solid wastes	Municipality	
Assessment		
Amount of non-hazardous solid wastes during construction and operational phases. Appropriate management of all waste in line with regulations: The parameter is monitored annually Site visit and checking waste disposal records. During on site visit it is confirmed that the waste disposal are transferred to the storage area of Manyas Municipality /24/.		

Data variable	Source of Data	Reported value for the project period
Access to affordable and clean energy services Fossil fuel replaced	Electricity Generation and Calculation	9,755 million m^3 natural gas been used
Assessment		
Fossil fuel replaced: The parameter is monitored yearly through comparing electricity generated by proposed project and natural gas that would be used to produce the same amount of electricity by a thermal power plant. The calculation is clearly presented in the excel sheet /9/.		

Data variable	Source of Data	Reported value for the project period
Biodiversity Number of bird species and affected species	• Ornithology Reports • Interview with employees	No bird deaths was observed
Assessment		
Number of bird species and affected species: The parameter is monitored once by ornithology report. For the new commissioned turbines on February, a new ornithology report /23/ is prepared. According to the report, there is no risk for the birds.		

Data variable	Source of Data	Reported value for the project period
Quality of Employment Number of personnel certified/trained during operation phase	Certificates and attendance lists of the trainings	Employees participated to the trainings.
Assessment		
Number of personnel certified/trained during operation phase: The parameter is monitored yearly by review employment records and training documents/certificates. All the trainings /29/ /30/ during this monitoring period was provided to the verification team. All the employees attend to the trainings.		

Data variable	Source of Data	Reported value for the project period
Quantitative Employment and Income Generation	• Residence Certificates • Registration Document	11 employees are hired
Assessment		
Payments made to staff: This parameter is monitored yearly by the evaluation documents for wages paid and social security documents. It was confirmed that 11 employees are hired by the project activity and their wage was credited by Manres Elektrik A.S. as confirmed through the Social Insurance Institution /14/.		

Data variable	Source of Data	Reported value for the project period

Balance of Payments and Investment	Electricity Generation and Calculation	1.79 million €
Assessment		
Currency saving due to avoided fuel import: This parameter is monitored yearly by through comparing electricity generated by Gunaydin WPP and natural gas that would be used to produce the same amount of electricity according to baseline scenario. The value for this monitoring period is 1.79 million € as given in the monitoring report and calculated in the excel sheet /9/.		

3.5.4 Assessment of data and calculation of emission reductions

Availability of the data

All the monthly meter protocols /18/ are available for the project participant. All PMUM records /17/ within this monitoring period was checked during the site visit. The monthly meter reading protocols /18/ were crosschecked with the PMUM records /17/.

Cross-check reported data

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 /17/ and the monthly meter reading protocols /18/ 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 05 of 19/10/2015 /3/ is equivalent to 27,754 tCO2e. The reported emission reductions are 20% lower than the estimated emission reduction of 34,486 tCO2e for the period as per the registered PDD /1/. For wind power projects the reason for this decrease in emission reductions is the electricity generation was interrupted due to external weather conditions 1 month in total in all the wind turbines.

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 sewage truck invoice /27/, correspondence of Manyas Municipality /24/, ornithology reports /23/, training records /29/ /30/, social security documents /14/ 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 remotely from the electricity meters through PMUM records by the TEIAS personnel. The plant personnel records the electricity generation from the meters every day and the responsible engineer checks the figures regularly. The monthly meter reading protocols are prepared as per these readings. 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 14.0 /7/.

4 VERIFICATION AND CERTIFICATION OPINION

RINA Services Spa (RINA) has performed verification of the emission reductions reported for the project activity "Gunaydin WPP" in Turkey, GS Registration Reference N° 1178, for the period 01/05/2014 to 31/07/2015, with regard to the relevant requirements for GS activities.

The project participants of the "Gunaydin WPP" 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 9 of 02/06/2014,
- 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 05 of 19/10/2015 for the "Gunaydin WPP" project in Turkey for the period 01/05/2014 to 31/07/2015 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 14.0 of 04/10/2013 and the monitoring plan contained in the registered PDD.

Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/05/2014 to 31/07/2015 amount to 27,754 tCO_2e.

Year 2014 01/05/2014 to 31/12/2014 13,105 tCO2e

Year 2015 01/01/2015 to 31/07/2015 14,649 tCO2e

GHG Emission Reductions or Removals	**tCO_2e**
Baseline Emissions	27,754
Project Emissions	0
Leakage	0
Net GHG emission reductions or removals	**27,754**

Istanbul, 22/12/2015

Tugce KIRATLI
GS Team Leader
RINA Denizcilik ve Belgelendirme Ltd. Sti.

Genova, 23/12/2015

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/ /13/ /31/	DR	The title of the project activity is given as "Gunaydin WPP" in the Monitoring Report version 01 /3/. The title is in line with the registered PDD /1/ and previous verification report /31/. The revision number and date of the Monitoring Report seems appropriate. The registration date of the project activity is 14/06/2013 as confirmed through the GS 3-week Issuance Review Period Document of 08/09/2014 /13/. The Monitoring report form (F-CDM-MR) is in line with the latest version.	**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/ /25/ /26/ /31/	DR, CC, I	It is confirmed during the site visit performed on 29/07/2015 that project activity is implemented and operated as per the registered PDD /1/. The turbines have been commissioned in three phases. The first phase acceptance Protocol covered 5 turbines were commissioned on 20/11/2012 /31/, the second phase acceptance Protocol covered 2 turbines were commissioned on 20/12/2014 /26/, and the third phase acceptance protocol covered 1 turbine was commissioned on 26/12/2014 /26/. The project activity consists of 5 model of GE 2.5 MW and GE 2.75 MW wind turbines making the total installed capacity of 20 MWm/20 MWe as confirmed through the Generation License /25/. However, the upgraded capacity of the project given in section A.1 is not in line with the registered PDD /1/. The technical details of the wind turbines given as a figure in the monitoring report is comply with the	~~**CAR 1**~~ **OK**

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

Checklist Question		Reference	MoV[1]	Comments	Conclusion
				registered PDD /1/ for only GE 2.5 turbines. There is no explanation about the new turbines (GE 2.75 MW). It is confirmed during the site visit that all installed turbines are GE 2.5 and 2.75 MW turbines. 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 Mustafa Kemal Pasa Transmission Line as confirmed through the Generation License /25/. The UTM coordinates of the turbines are confirmed through the registered PDD /1/ and the generation license /25/. The estimated emission reduction given in the cover page and Section E.5 of Monitoring Report /3/ is not in line with the registered PDD /1/. Please re-calculate and make all the necessary changes in the monitoring report. The crediting period is defined as 01/12/2012 to 30/11/2019 which is line with the PDD. The actual emission reduction calculated in the excel sheet and given in the first page of the monitoring report is correct. However, during on site visit the project participants decided to add the months of June and July. Please re-calculate the total emission reduction and revise the monitoring period. The project milestone table is not in line with the current situation. The commissioning date of the new turbines should be added to the table. During on site visit, it was confirmed that the turbines are breakdown for two times. However, there is a miswriting explanation in section E.6 that “no major failure or operational breakdown has been experienced during this monitoring period”. Please revise.	
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 13.0.0. However, this version is not in line with the registered PDD /1/.	~~**CR 1**~~ **OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
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 14.0 /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 to the grid in year y ($EG_{facility,y}$) needs to be monitored as per the ACM0002 version 14.0.0 /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", "Access to Affordable and Clean Energy Services", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment". However, after the capacity extension, the parameter of "Other Pollutants" should be monitored. Please add.	~~**CAR 2**~~ **OK**
B.1.3	Do the sustainability indicators included in the monitoring report comply with the minimum contents specified in paragraph 4.1 of the GS toolkit?	/4 /5/	DR, CC	The project activity is developed and registered under Gold standard Version 2.1; therefore, GS Toolkit 2.1 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 01/05/2014 to 31/07/2015 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	As per the approved methodology ACM0002 version 14.0, the combined emission factor has been determined using the ex-ante option, so it is not requested to monitor and recalculate the emission	**OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
				factors during this crediting period. The combined emission factor is determined to be 0.600 tCO_2/MWh in the registered PDD /1/ and validation report /8/. ***Amount of fuels consumed by thermal power plants for electricity generation in terms of fossil fuel type i in year y ($FC_{i,y}$):*** It ıs based on TEIAS statistics and used for calculating $NCV_{i,y}$. ***Net electricity generated and delivered to the grid by all power sources serving the system, not including low-cost/must run power plants in year y (EGy):*** Net electricity fed into the grid used for the calculation of the net/gross relation is based on TEIAS web site. ***CO2 emission factor of fossil fuel type "i" in year "y" ($EF_{CO2,i,y}$):*** The parameter is based on IPCC default values as confirmed through the PDD /1/. ***Average net energy efficiency of power unit m in year y ($\eta_{m,y}$):*** The parameter is based on "Tool to calculate the emission factor for an electricity system as confirmed through the PDD /1/. ***Net calorific value (energy content) of fossil fuel type i in year y ($NCV_{i,y}$):*** It is calculated with TEIAS statistics.	
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/	DR, CC, I	***Net Electricity generated and delivered to the grid by the proposed project in year y ($EG_{facility,y}$):*** The electricity generation and electricity consumption is measured in GWh and it is monitored by two electricity meters that are located at Mustafa Kemal Pasa substation. However, the source of data of the parameter stated as "monthly records signed by TEIAS and plants manager and invoices are used" in the monitoring report is not in line with the registered PDD. Please revise. In addition, please also add an explanation to section B.2.2 Corrections about the source of data that will use for the calculation of net electricity generation.	~~**CR 2**~~ **OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
B.3.2	Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate?	/3/	DR, CC,I	Two electricity meters are installed at Mustafa Kemal Pasa substation. The project owner can also read the generation electricity remotely. However, during on site visit the electricity meters could not be confirmed since they are far from the project area and under responsible of TEIAS. Please give a reference (such as photo) to confirm the electricity meters.	~~**CR 3**~~ **OK**
B.3.3	Are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate?	/1/ /3/ /18/ /21/ /22/	DR, CC,I	TEIAS is responsible for calibration and maintenance of the devices as per the registered PDD /1/. The project owner has no control on the meters since the meters are sealed by the TEIAS as confirmed during the site visit. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. During this monitoring period no discrepancy was occurred as confirmed through the monthly meter readings /18/. The calibration reports given by Kesir Muhendislik on 13/07/2012 for the ITRON SL7000 electricity meters with a serial no 65000752 and 65000753 /21/ /22/ have been provided to the Verification team. It could be confirmed that the electricity meters were calibrated before installation.	**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 (reading in real time) by two 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/ /18/	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 and the monthly official electricity metering reports /18/ is prepared. The monthly reading protocols are filled by the Project personnel and sent to TEIAS. In this way, it is checked if there are inconsistencies between the values read by OSOS and the reading protocols.	**OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
				The plant staff explained the monitoring procedures during the site visit. As confirmed through the observation, the plant personnel records the electricity generation from the meters and fills the monthly reading protocols.	
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	/2/ /3/ /9/ /14/ /23/ /24/ /27/ /29/ /30/	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", "Access to Affordable and Clean Energy Services", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment". **Air Quality:** *SO_2 and NO_x emissions from grid connected plants:* The parameter is monitored yearly by calculation with the Turkey's GHG Inventory and TEIAS Statistics. The value for this monitoring period is defined as 27 tons for SO_2 and 52 tons for NO_x. However, the total electricity generation will be revised since two months are added. Please re-calculate. **Water Quality and Quantity:** *Disposal of the waste water:* The parameter is monitored annually by assessing disposal methods during site visits and checking waste disposal records /27/. It is confirmed that the waste water is stored in a septic tank on site and disposed of periodically with vacuum. However, the date of the invoice given in the current situation is belongs to the previous monitoring period. Please revise. **Soil Condition:** *Amount of non-hazardous solid wastes during construction and operational phases. Appropriate management of all waste in line with regulations:* The parameter is monitored annually Site visit and checking waste disposal records. During on site visit it is	~~**CAR 3**~~ **OK**

Checklist Question	Reference	MoV[1]	Comments	Conclusion
			confirmed that the waste disposal are transferred to the storage area of Manyas Municipality /24/. **Access to affordable and clean energy services:** *Fossil fuel replaced:* The parameter is monitored yearly through comparing electricity generated by proposed project and natural gas that would be used to produce the same amount of electricity by a thermal power plant. **Biodiversity :** *Number of bird species and affected species:* The parameter is monitored once by ornithology report. For the new commissioned turbines on February, a new ornithology report /23/ is prepared. According to the report, there is no risk for the birds. **Quality of Employment:** *Number of personnel certified/trained during operation phase:* The parameter is monitored yearly by review employment records and training documents/certificates. All the trainings /29/ /30/ during this monitoring period was provided to the verification team. However, all the employees do not attend to the health and safety trainings. Please clarify why “Ersem Uğuz, “Mehmet Selvi”, “Hasan Alsan” and “Volkan Baskaya” do not attend to the trainings. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. Please clarify. **Quantitative Employment and Income Generation:** *Payments made to staff:* This parameter is monitored yearly by the evaluation documents for wages paid and social security documents. It was confirmed that 11 employees are hired by the project activity and their wage was credited by Manres Elektrik A.S. as confirmed through the Social Insurance Institution /14/.	

Checklist Question		Reference	MoV[1]	Comments	Conclusion
				Balance of payments and investment: *Currency saving due to avoided fuel import:* This parameter is monitored yearly by through comparing electricity generated by Gunaydin WPP and natural gas that would be used to produce the same amount of electricity according to baseline scenario. The value for this monitoring period is 1.866 million € as given in the monitoring report and calculated in the excel sheet /9/. However, the value of "Exchange Rate for Investment date" could not be verified since the link given in the calculation excel sheet is not available.	
B.4.2	Is the montiroing 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 29/07/2015 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 two meters. 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 project manager explained the monitoring procedures during the site visit. As confirmed through the observation, the plant staff monitors and records the data at the end of each month from both meters, fills the forms and compares the values for consistency. Also, the data was measured hourly, transferred to excel and reported daily. The responsible engineer performs regular checks of this procedure each month. If any difference occurs between the two meters, TEIAS has to be informed.	**OK**
B.5.3	Are the data management and quality assurance and	/1/ /3/ /17/	DR, I	The generated electricity is measured by two meters that	**OK**

Checklist Question		Reference	MoV[1]	Comments	Conclusion
	quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?	/18/		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 /17/ on the web site. The project owner also archives a hardcopy of the monthly official electricity metering reports /18/, scanned and stored electronically.	
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 monitoring report /3/ and registered PDD /1/ line with the ACM0002 version 14.0.0 /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 The project activity consists of 5 model of GE 2.5 MW and GE 2.75 MW wind turbines making the total installed capacity of 20 MWm/20 MWe as confirmed through the Generation License /25/. However, the upgraded capacity of the project given in section A.1 is not in line with the registered PDD /1/. The technical details of the wind turbines given as a figure in the monitoring report is comply with the registered PDD /1/ for only GE 2.5 turbines. There is no explanation about the new turbines (GE 2.75 MW). The estimated emission reduction given in the cover page and Section E.5 of Monitoring Report /3/ is not in line with the registered PDD /1/. Please re-calculate and make all the necessary changes in the monitoring report. The actual emission reduction calculated in the	A.2	Section A.1 is updated according to the latest «Generetaion Capacity Report». Total installed capacity added to the this section as 20,75 MWm/20MWe, which states in the capacity report page 6. The technical details of the wind turbines for GE 2.75 MW is added. Estimated emission reduction given in the cover page is updated. Emission reduction is calculated by considering 10 MW capacity until 20/12/2014, rest of the year, 20 MW capacity is taken into account in emission reduction calculations. In other words, 01/05/2014 – 20/12/2014 emission reduction is calculated 14057 tCO_2e, This date to 31/12/2014 ER is calculated 1004 tCO_2e.	**Review 1 (18/08/2015):** The upgraded capacity of the project given in section A.1 is now in line with the registered PDD /1/ and generation license. The technical details for GE 2.75 turbines are now presented in the monitoring report. The estimated emission reduction given in the cover page is not in line with the given explanation in Table 2. Please clearly explain the calculation. The months of June and July are now added to the calculation. The PMUM and monthly meter reading for July is provided to the verification team. However, the PMUM record for the month of June is not provided to the verification team. In addition, the version and the date of the

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
excel sheet and given in the first page of the monitoring report is correct. However, during on site visit the project participants decided to add the months of June and July. Please re-calculate the total emission reduction and revise the monitoring period. The project milestone table is not in line with the current situation. The commissioning date of the new turbines should be added to the table. During on site visit, it was confirmed that the turbines are breakdown for two times. However, there is a miswriting explanation in section E.6 that "no major failure or operational breakdown has been experienced during this monitoring period". Please revise.		Overall, emission reduction of 7 months of 2014 is calculated 15061 tCO_2e. As it is required, June and July is added to the emission reduction calculations. Project milestone table is updated and commisioning date of the new turbines are added. Information about breakdown incidence due to the extreme weather events is in place in the monitoring plan.	excel sheet are not revised. The monthly meter reading values are not added to the calculation excel sheet to crosscheck the difference between two calculations of PMUM and Monthly Meter Readings. The project milestone table is now revised to be in line with the current situation. The commissioning date of the new turbines is now added to the milestone. However, there is no supporting document to confirm the "Start of Construction for Extension". Please provide. Necessary explanation is given for the breakdowns of the turbines in section E.6 of the monitoring report. **Hence, CAR 1 is not closed.** **Review 2 (17/09/2015):** The estimated emission reduction given in the cover page is now in line with the registered PDD. The PMUM record for the month of June is now provided to the verification team and is confirmed with the calculation excel sheet. In addition, the version and the date of the excel sheet are now revised. The monthly meter reading values are now added to the calculation excel sheet to crosscheck the difference between two calculations of PMUM and Monthly Meter Readings. The supporting document is now provided to confirm the "Start of Construction for Extension". **Hence, CAR 1 is closed.**

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
CAR 2 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", "Access to Affordable and Clean Energy Services", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment". However, after the capacity extension, the parameter of "Other Pollutants" should also be monitored. Please add.	B.1.2	Noise level is added as an other pollutants. PP Response 18/08/2015 Estimated emission reduction part has been updated. 2014 emission reduction has been calculated based on original projet design (10Mwe) upto 20/12/2014 and 20Mwe between 20/12/2014-31/07/2015 PMUM for june provided with v3 of the report. Values of monthly readings added. Start of construction is updated and dailt report submitted as proof.. **PP Response 2 17/09/2015** «Other Pollutants» section is updated and the section is in line with the registered PDD.	**Review 1 (18/08/2015):** The parameter of "Other Pollutants" is now added to the monitoring report. However, the mitigation measure, the chosen parameter and way of monitoring is not in line with the registered PDD. Please revise. **Hence, CAR 2 is not closed.** **Review 2 (7/09/2015):** The given response is not related with this CAR. The parameter of "Other Pollutants" is now added to the monitoring report. However, the mitigation measure, the chosen parameter and way of monitoring is not in line with the registered PDD. Please revise. **Hence, CAR 2 is not closed.** **Review 3 (18/09/2015):** The mitigation measure, the chosen parameter and way of monitoring is now in line with the registered PDD. **Hence, CAR 2 is closed.**
CAR 3 **Air Quality:** *SO_2 and NO_x emissions from grid connected plants:* The parameter is monitored yearly by calculation with the Turkey's GHG Inventory and TEIAS Statistics. The value for this monitoring period is defined as 27 tons for SO_2 and 52 tons for NO_x. However, the total electricity generation	B.4.1	SOx and NOx values are updated according to the latest electricity generation.	**Review 1 (18/08/2015):** **Air Quality:** *SO_2 and NO_x emissions from grid connected plants:* This parameter is related with the generated electricity. Therefore, it will be reviewed after the generation is confirmed. **Water Quality and Quantity:**

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
will be revised since two months are added. Please re-calculate. **Water Quality and Quantity:** *Disposal of the waste water:* The parameter is monitored annually by assessing disposal methods during site visits and checking waste disposal records /27/. It is confirmed that the waste water is stored in a septic tank on site and disposed of periodically with vacuum. However, the date of the invoice given in the current situation is belongs to the previous monitoring period. Please revise. **Quality of Employment:** *Number of personnel certified/trained during operation phase:* The parameter is monitored yearly by review employment records and training documents/certificates. All the trainings /29/ /30/ during this monitoring period was provided to the verification team. However, all the employees do not attend to the health and safety trainings. Please clarify why "Ersem Uğuz, "Mehmet Selvi", "Hasan Alsan**"** and "Volkan Baskaya" do not attend to the trainings. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. Please clarify. **Balance of payments and investment:** *Currency saving due to avoided fuel import:* This parameter is monitored yearly by through comparing electricity generated by Gunaydin WPP and natural gas that would be used to produce the same amount of electricity according to baseline scenario. The value for this monitoring period is 1.866 million € as given in the monitoring		The invoice belongs to the April 2015 is provided. Some of our personnel is shift-workers. Hence, they might not be able to attend some of the trainings however, personnel who are not able to attend the trainings are identified every end of the year and training is provided the missing personnel. Ersem Uğuz is «Management Director» of Serin and Manres Energy, Hasan Aslan is an «Officer» in the İstanbul Office, Volkan Başkaya is «General Manager» of facilities and based in İstanbul Office. Health and safety training was conducted in 28/05/2014 and further training is planing in 2015, September. The link is provided.	*Disposal of the waste water:* The date of the invoice given in the current situation is belongs to the previous monitoring period. The documentation is provided, however, the given information in the monitoring report shall also be revised. **Quality of Employment:** *Number of personnel certified/trained during operation phase:* All the employees shall attend to the Health and Safety trainings. Therefore, this parameter will be monitored during the next verification period. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. Please clarify. **Balance of payments and investment:** *Currency saving due to avoided fuel import:* The value of "Exchange Rate for Investment date" is now added to the calculation excel sheet. However, it could not be verified since the value given in the calcualtion is not in line with the reference. **Hence, CAR 3 is not closed.** **Review 2 (17/09/2015):** **Air Quality:** *SO_2 and NO_x emissions from grid connected plants:* This parameter and the calcualtion are confirmed. **Water Quality and Quantity:** *Disposal of the waste water:* The date of

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
report and calculated in the excel sheet /9/. However, the value of "Exchange Rate for Investment date" could not be verified since the link given in the calculation excel sheet is not available.		PP Response 18/08/2015 Report updated for disposal of wastewater. This is target, not a commtiment and there is no intrinsic date. And as explained, studies are going on for certification. Exchange rate has been updated. **PP Response 2 17/09/2015** Water Quality and Quantity: The invoices were added in relation to 2014.	the invoice is revised for only the year of 2015. However, 2 more invoices were provided to DOE related to 2014. Please also present them. **Quality of Employment:** *Number of personnel certified/trained during operation phase:* All the employees shall attend to the Health and Safety trainings. Therefore, this parameter will be monitored during the next verification period. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. **Balance of payments and investment:** *Currency saving due to avoided fuel import:* The value of "Exchange Rate for Investment date" is now verified. **Hence, CAR 3 is not closed and a FAR is raised.** **Review 3 (18/09/2015):** **Water Quality and Quantity:** *Disposal of the waste water:* The date of the invoices are now presented in the monitoring report. **Hence, CAR 3 is closed.**
CR 1 The registered project activity applies the approved baseline and monitoring methodology ACM0002 version 13.0.0. However, this version is not in line with the registered PDD /1/.	A.3	Version was corrected.	**Review 1 (17/08/2015):** The registered project activity applies the approved baseline and monitoring methodology ACM0002 version 14.0 and now this version is in line with the

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
			registered PDD /1/. **Hence, CR 1 is closed.**
CR 2 ***Net Electricity generated and delivered to the grid by the proposed project in year y ($EG_{facility,y}$):*** The electricity generation and electricity consumption is measured in GWh and it is monitored by two electricity meters that are located at Mustafa Kemal Pasa substation. However, the source of data of the parameter stated as "monthly records signed by TEIAS and plants manager and invoices are used" in the monitoring report is not in line with the registered PDD. Please revise. In addition, please also add an explanation to section B.2.2 Corrections about the source of data that will use for the calculation of net electricity generation.	B.3.1	The statement is made compatible as in line in the registered PDD. Explanation is added in Section B.2.2 PP Response 18/08/2015 Clarification added to section B.2.2	**Review 1 (18/08/2015):** ***Net Electricity generated and delivered to the grid by the proposed project in year y ($EG_{facility,y}$):*** The source of data of the parameter is now in line with the registered PDD. However, the given explanation in section "B.2.2 Corrections" is not clearly identified. The explanation shall include the base document (PMUM or Monthly Meter Reading) used in the calculation of net electricity generation. During on site visit, PP decided to use PMUM records for the calcualtion. However, according to the registered PDD, monthly meter readings are defined for the calculation. Therefore, if PMUM is used, it is requested to add an explanation to B.2.2 correction part. If monthly meter readings are used, there is no need to change. **Hence, CR 2 is not closed.** **Review 2 (17/09/2015):** The given explanation in section "B.2.2 Corrections" is now clearly identified. **Hence, CR 2 is closed.**
CR 3 Two electricity meters are installed at Mustafa Kemal Pasa substation. The project owner can also read the generation electricity remotely. However, during on site visit the electricity meters could not be confirmed since they are far from the project area and under responsible of TEIAS. Please give a reference (such as photo) to	B.3.2	Photo is provided.	**Review 1 (17/08/2015):** The serial no of the electricity meters could be confirmed with the PMUM and monthly meter readings. In addition, the photos of the electricity meters are now provided to the verification team. **Hence, CR 3 is closed.**

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
confirm the electricity meters.			

TABLE 3 FORWARD ACTION REQUEST

Forward action request	Reference to Table 1	Response by project participants Verification conclusion
FAR 1 All the employees shall attend to the Health and Safety trainings. Therefore, this parameter will be monitored during the next verification period. In addition, according to the previous verification report, the future target of the parameter is ISO 9000-14001-18001 trainings, fire extinguish trainings will be given to the employees. However, there is no improvement with the new trainings. Therefore, this parameter will also be monitored during the next verification period.	B.4.1	Trainings are organized periodically by project owner. Trainings for new period are under planning and will be declared during next verification. **RINA Opinion:** This parameter will be monitored during the next verification.