GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Final

"Duzova Wind Power Project, Turkey"
in
Turkey

Monitoring period: 01/10/2011 to 31/05/2013

Report N°2013-TQ-33-MD

Revision N°1.3

GOLD STANDARD VERIFICATION/CERTIFICATION REPORT

Project Title:	Country:	Estimated VERs (tCO2e):
Duzova Wind Power Project, Turkey	Turkey	103,036
GS Registration Reference N°:	**Monitoring period:**	**Certified VERs (tCO2e):**
672	01/10/2011 to 31/05/2013	96,855
Client:	**Client contact:**	
Utopya Elektrik Uretim Sanayi ve Tic. A.S.	Ozlem COLAK	
Report No.:	**Revision:**	**Date of this report:**
2013-TQ-33-MD	1.3	26/08/2013
Approved by (Final Report – Authorized officer signing for the DOE): Laura Severino		**Date of approval:** 30/08/2013

Methodology

Number:	Version:	Title:	Scale	SS(s):
ACM0002	11 of 12/02/2010	Consolidated baseline methodology for grid-connected electricity generation from renewable sources	Large	1

RINA Services S.p.A. (RINA), commissioned by Utopya Elektrik Uretim Sanayi ve Tic. A.S., has verified the greenhouse gas emission reductions reported for the project activity "Duzova Wind Power Project, Turkey" in Turkey, GS Registration Reference N° 672, for the period 01/10/2011 to 31/05/2013, with regard to the relevant requirements for CDM and GS activities. The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable GS VER requirements, which refer to CDM rules, in order to be certified.

The project was validated by TÜV Rheinland (validation report N° 21212149, version 02.2 issued on 05/10/2010).

The GHG emission reductions were calculated on the basis of the approved methodology ACM0002, version 11.0, Consolidated baseline methodology for grid-connected electricity from renewable sources of 12/02/2010 and the monitoring plan included in the registered Project Design Document, version 11 of 14/09/2012.

In conclusion, it is RINA's opinion that the project activity "Duzova Wind Power Project, Turkey", in "Turkey", as described in the Monitoring Report version 3.5 of 26/08/2013, 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 11.0.0 of 12/02/2010. Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/10/2011 to 31/05/2013 amount to 96,855 tCO_{2e}.

Baseline Emissions	96,855	tCO_{2e}
Project Emissions	0	tCO_{2e}
Leakage	0	tCO_{2e}
Net GHG emission reductions/removal	96,855	tCO_{2e}

Work carried out by:
Isil TIMUROGLU
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Work verified by:
Laura Severino

Keywords:
Climate Change, Kyoto Protocol, Verification, Gold Standard

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Abbreviations

AF	Adjustment Factor
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CEF	Carbon Emission Factor
CH_4	Methane
CR	Clarification Request
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CRT	Coordination and Technical Control Staff
DCI	Certification Division of RINA Services Spa
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
ER	Emission Reductions
GHG(s)	Greenhouse gas(es)
GS	Gold Standard
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LFG	Landfill gas
LoA	Letter of Approval
MoV	Means of Verification
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PDD	Project Design Document
PE	Project Emission
PMUM	Market Financial Conciliation Center (Piyasa Mali Uzlastirma Merkezi)
PP(s)	Project Participant(s)
Ref.	Document Reference
RINA	RINA Services Spa
SDI	Sustainable Development Indicator
SGK	Social Security Institution
SS(s)	Sectoral Scope(s)
TEIAS	Turkish Electricity Transmission Company (Turkiye Elektrik Iletim A.S.)
UNFCCC	United Nations Framework Convention on Climate Change
VERs	Verified Emission Reduction(s)
VVS	Validation and Verification Standard

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1 INTRODUCTION

Utopya Elektrik Uretim Sanayi ve Tic. A.S. has commissioned RINA to carry out the verification and certification of emission reductions reported for the registered “Duzova Wind Power Project, Turkey” project in Turkey, GS Registration Reference N°672 , for the period 01/10/2011 to 31/05/2013.

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

1.1 Objective

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

The objective of this verification/certification was to verify and certify emission reductions and effective implementation of the monitoring of sustainable development indicators and mitigation measures, reported for the “Duzova Wind Power Project, Turkey” project in Turkey for the period 01/10/2011 to 31/05/2013.

1.2 Scope

The verification scope is:

- to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- to evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- to verify that reported GHG emission data is sufficiently supported by evidence;
- to evaluate whether all the mitigation measures have been effectively put in place according to the monitoring plan and that all the sustainable development indicators have been correctly monitored.

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

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

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

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

2 METHODOLOGY

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

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The verification consisted of the following three phases:

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

The following sections outline each step in more detail.

2.1 Desk Review

The monitoring report version 3.5 of 26/08/2013 /2/, the emission reduction calculations provided in the form of a spreadsheet "Düzova Baseline Calculation_v31" version 3.1 submitted on 17/07/2013 /8/, the approved baseline and monitoring methodology ACM0002 version 11.0.0 /6/ and all the documentation provided to support the monitoring period /1-27/ were assessed as part of the verification. In addition, the Project Design Document (PDD) /1/, in particular as regards the baseline estimations, the monitoring plan, and the validation report revision 02.2 of 05/10/2010 /7/ for the project were reviewed.

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

/1/	FutureCamp: CDM-PDD for "Duzova Wind Power Project, Turkey" in Turkey, version 11 of 14/09/2012
/2/	FutureCamp: Monitoring report for project activity "Duzova Wind Power Project, Turkey" in Turkey, version 3.5 of 26/08/2013 related to the monitoring period 01/10/2011 to 31/05/2013 FutureCamp: Monitoring report for project activity "Duzova Wind Power Project, Turkey" in Turkey, version 3.4 of 19/08/2013 related to the monitoring period 01/10/2011 to 31/05/2013 FutureCamp: Monitoring report for project activity "Duzova Wind Power Project, Turkey" in Turkey, version 3.3 of 24/07/2013 related to the monitoring period 01/10/2011 to 31/05/2013 FutureCamp: Monitoring report for project activity "Duzova Wind Power Project, Turkey" in Turkey, version 3.2 of 24/07/2013 related to the monitoring period 01/10/2011 to 31/05/2013 FutureCamp: Monitoring report for project activity "Duzova Wind Power Project, Turkey" in Turkey, version 3.1 of 17/07/2013 related to the monitoring period 01/10/2011 to 31/05/2013 FutureCamp: Monitoring report for project activity "Duzova Wind Power Project, Turkey" in Turkey, version 3.0 of 31/05/2013 related to the monitoring period 01/10/2011 to 31/05/2013
/3/	Gold Standard Foundation: Gold Standard Requirements, version 2.1 of 01/07/2009
/4/	Gold Standard Foundation: Gold Standard Toolkit, version 2.1 of 01/07/2009
/5/	CDM Executive Board: Validation and Verification Standard, version 03.0 of 23/11/2012
/6/	CDM Executive Board: Baseline and monitoring methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 11 of 12/02/2010
/7/	TÜV Rheinland: Validation Report for "Duzova Wind Power Project, Turkey" No. 21212149 revision 02.2 of 05/10/2010
/8/	FutureCamp: Emission Reduction Calculation Spreadsheet "Düzova Baseline Calculation_v31" version 3.1, submitted on 17/07/2013 FutureCamp: Emission Reduction Calculation Spreadsheet "Düzova Baseline Calculation_v3.0" version 3.0, submitted on 04/06/2013
/9/	CDM Executive Board: Monitoring Report Form (F-CDM-MR), version 03.1 of 02/01/2013
/10/	Bureau Veritas: 2nd Verification Report for " Duzova Wind Power Project, Turkey " in Turkey, No. TURKEY-VER/CER.1385.11.C45/2011 revision 05 of 17/01/2012
/11/	Doga Arastirmalari Dernegi: Ornitology Report for Duzova WPP of June 2012
/12/	Market Financial Settlement Center (PMUM): All Monthly Electricity Records from 01/10/2011 to 31/05/13
/13/	Turkish Electricity Transmission Company (TEIAS): Meter Reading Records from 01/10/2011

	to 31/05/13
/14/	Meren Enerji Ltd. Sti.: Elster A1500 (Serial Number:388184) Calibration Report of 06/07/2009 Meren Enerji Ltd. Sti.: Elster A1500 (Serial Number:388185) Calibration Report of 06/07/2009
/15/	Turkish Electricity Transmission Company (TEIAS): Electricity Meter Test Report serial number 388184 (main meter) and serial number 388185 (back-up meter), of 22/03/2013
/16/	Energy Market Regulatory Authority: Communiqué for Measurement Devices used in the Electricity Market of 22/03/2003
/17/	The Ministry of Trade and Industry: Regulation of Metering and Testing of Metering Systems of 24/07/1994
/18/	Official Letter From the Mukhtar of Assagikiriklar Village, submitted on 04/06/2013 (1)
/19/	Official Letter From the Mukhtar of Assagikiriklar Village, submitted on 04/06/2013 (2)
/20/	MISEM: Management responsibility at High Voltage Work Places Certificate (Deniz Dogru) of 14-15-16/03/2013
/21/	Kaya Training: Work at Height Certificate (Deniz Dogru) of 8-9/04/2013
/22/	Social Security Institution: Recruitment Statement of all Employees
/23/	District Directorate of Civil Registry: Residence Certificate of all Employees
/24/	G.D.S.: Waste Oil Delivery Record of 15/04/2011
/25/	Picture of the Waste Oil Storage Area, submitted on 07/06/2013
/26/	Akustik Çevre: The Level of Environmental Noise Assessment Report of 14/05/2013
/27/	FutureCamp: CDM-Passport for “Duzova Wind Power Project, Turkey” in Turkey of 02/07/2012
/28/	Energy Market Regulatory Authority: Generation License numbered EU/1179-22/851 of 03/05/2007
/29/	The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 12/02/2013
/30/	The Ministry of Energy and Natural Resources: Temporary Acceptance Protocol of 16/05/2013

2.2 On-site assessment

On 19/06/2013, RINA visited wind power plant located in Asagikiriklar Village of Bergama District, Izmir province of Turkey. During the on-site assessment of the project, RINA assessed the implementation and operation of the proposed project activity, reviewed the information flows for generating, aggregating and reporting the monitoring parameters, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant, checked the monitoring equipment including calibration performance, reviewed calculations and assumptions made in determining the GHG data and emission reductions, checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters, checked the correct and effective implementation of the mitigation measures foreseen in the sustainability monitoring plan, to prevent violation or the risk of violating a safeguarding principle of the “Do No Harm” Assessment or to “neutralize” a Sustainable Development Indicator.

Project Manager and Project Technician were interviewed with the purpose to see how the monitoring procedures were implemented; the whole process was explained to the verification team during the site visit on 19/06/2013. During the site visit, the mukhtar and the villagers were interviewed about the benefits of the project, local employment, the nearest settlement; overall effects of the design change to the village and no negative feedback were received. The carbon consultant has been interviewed about the monitoring report and related parameters on, which the whole process related emission reduction calculation and sustainability monitoring plan was explained.

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

	Date	**Name and Role**	**Organization**	**Topic**

/a/	19/06/2013	Aysun KARASOY *Project Specialist*	Fina Enerji	Monitoring plan Monitoring methodology Monitoring data Implementation status of the project Monitoring equipments and operation Calibration certificates Training Certificates Electricity Generation Waste and wastewater Disposal Waste Oil Noise Pollution Dust Emission Building Rubbish
/b/	19/06/2013	Gulden ERDEM *Assistant Project Specialist*	Fina Enerji	
/c/	19/06/2013	Fariz TASDAN *Project Consultant*	FutureCamp	
/d/	19/06/2013	Deniz DOGRU *Project Manager*	Fina Enerji	
/e/	19/06/2013	Mahmut ODABASI *Project Technician*	Fina Enerji	
/f/	19/06/2013	Halil EROL *Mukhtar of Asagikiriklar Village*	Asagikiriklar Village	Benefit of the project to the village Local Employment Design Change Effects Bird Death Nearest Settlement of the Project Building Rubbish
/g/	19/06/2013	Ramazan GOKCE *Villager*	Asagikiriklar Village	
/h/	19/06/2013	Vedat AKGUREN *Villager*	Asagikiriklar Village	

2.3 Resolution of outstanding issues

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

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

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

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

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

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

Figure 1 Gold Standard Verification protocol tables

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

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

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

2.4 Internal quality control

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

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

2.5 Verification team and the technical reviewer(s)

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

Role/Qualification	Last Name	First Name	Country
GS Team Leader, GS Verifier, GS Technical Expert	TIMUROGLU	Isil	Turkey
Verifier in Training, Technical Expert in Training	KIRATLI	Tugce	Turkey
Technical Reviewer	Menon	Rekha	India

3 VERIFICATION FINDINGS

The findings of the verification related to the monitoring period from 01/10/2011 to 31/05/2013 as documented and described in the monitoring report version 3.5 of 26/08/2013 /2/ are stated in the following sections.

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

3.1 Description of the project activity

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

Project Participant(s)	Utopya Elektrik Uretim Sanayi ve Tic. A.S.		
Project Title	Duzova Wind Power Project, Turkey		
Location of the project	Asagikiriklar Village of Bergama District, Izmir Province of Turkey		
Methodology(ies)	ACM0002", "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 11.0.0 of 12/02/2012 /6/		
Sectoral Scope(s)	1	**RINA's Technical Area(s)**	1.2
Registered PDD	Revision 11 of 14/09/2012		
Date of registration	22/11/2010	**GS Registration Reference N°**	672
Starting date of the crediting period	11/08/2009		
Project's crediting period	11/08/2009 to 10/08/2016		
Monitoring period	01/10/2011 to 31/05/2013		
Project documentation link	http://mer.markit.com/br-reg/public/index.jsp?q=duzova&s=cp		

The project activity is a wind power plant that consists of 16 wind turbines each have 2500 kW capacity, making the total installed capacity of 40 MWm / 30 MWe as per the generation license /28/ and the temporary acceptance protocols /29/ /30/. The total installed capacity will be limited with 30 MWe as written in the registered PDD /1/ and it is confirmed as per the temporary acceptance protocols /29/ /30/. The generated electricity is fed to the national grid. The estimated net electricity production is 118,100 MWh/year and the annual emission reductions are estimated to be 71,072 tCO_2e.

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. The project activity 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 GS 672 Design Change Review Final Report of 15102012, 2 FARs were identified.

FAR#1: *The DOE shall please ensure to interview stakeholders that might have been affected by the design change during the third & fourth periodic verification.*

During on site visit on 19/06/2013, the mukhtar and the stakeholders were interviewed about the effects of the design change on third monitoring period of 01/10/2011 to 31/05/2013. The villagers explained that first they were worried about the pasture area but then they agreed that turbines shadows have become useful for the animals. The villagers said that there is no detrimental effect on the cultivated areas by the project activity. Hence, FAR#1 is closed.

FAR#2: *The Verifying DOE shall please check the distance of closest settlement to the extended project at next verification and provide opinion accordingly.*

According to the interviews with the mukhtar, the villagers and the project manager, it is confirmed that the distance of closest settlement to the extended project is 1.5 km (Asagikiriklar Village) during on site-visit on 19/06/2013. In addition, during the construction of the 4 new turbines, no dust and noise emission had been effected to the village and no negative feedbacks were received about the expropriation. Also, the new turbines are still located in the project boundary. Hence, FAR#2 is closed.

The ***FAR#1*** has been taken into consideration during this monitoring period. However, according to the GS 672 Design Change Review Final Report of 15/10/2012 it shall be monitored in the next (fourth) monitoring period.

3.3 Project implementation

It was verified during the site visit conducted on 19/06/2013 that the proposed project activity has been implemented and it is in operation in accordance to the project activity described in the registered PDD /1/.

It is confirmed during the site visit that the project was commissioned in three phases. Firs 6 turbines with 15 MW capacity was put in operation on 11/08/2009 and additional 6 turbines with 15 MW capacity was put in operation on 01/09/2010 enabling installed capacity of project to reach to 30 MW and additional 4 new turbines, the total electrical power capacity of the power plant is capped to 30 MWe during the operation, but installed mechanical capacity is increased to 40 MWm. The project activity has started operation with first 6 turbines with a total capacity of 15 MW on 11/08/2009 and the additional 6 turbines with 15MW capacity was put in operation on 01/09/2010 according to the previous verification report /10/. The new 4 turbines was put in operation in two phase. First 2 turbines started to operate on 12/02/2013 and the last 2 turbines started to operate on 16/05/2013 as per the Temporary Acceptance Protocols /29/ /30/.

The project activity consists of 16 wind turbines each have 2500 kW capacity, making the total installed capacity of 40 MWm / 30 MWe. Technical details of the wind turbines comply with the registered PDD /1/. It is confirmed during the site visit that all installed turbines are GE 2.5xl model. The total installed capacity will be limited with 30 MWe as per the generation license /28/ and the temporary acceptance protocols /29/ /30/. The project boundary in the registered PDD /1/ is in line with the actual project boundary. The generated electricity is fed to the national grid.

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/.

3.4 Methodology for determining Emission Reductions.

According to the applied methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 11.0.0 of 12/02/2010 /6/, the emission reductions have been calculated based on the following formula:

$ER_y = BE_y – PE_y – L_y$

ER_y : Emission reductions in year y (t CO_2e/yr)
BE_y : Baseline emissions in year y (t CO_2e /yr)
PE_y : Project emissions in year y (t CO_2/yr)
L_y : Leakage emissions in year y (t CO_2/yr)
y : Refers to a given period

Baseline emissions include only CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity, calculated as follows:

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

Where:

BE_y	: Baseline emissions in year y (tCO_2/yr)
$EG_{PJ,y}$	: Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y(MWh/yr)
$EF_{grid,CM,y}$	: Combined margin CO_2 emission factor for grid connected power generation in year y (tCO_2/MWh)

The electricity meters are measuring two parameters: The electricity supplied to the grid (EGexport) and the electricity consumption from the grid (EGimport). To achieve the net amount of supplied electricity, the difference has to be calculated:

$GEN_y = EG_{export} – EG_{import}$

Where:

GEN_y	=	Net electricity supplied to the Grid in MWh (ID 1)
EG_{export}	=	Electricity supplied to the Grid in MWh
EG_{import}	=	Electricity consumption from the Grid in MWh

The proposed project activity involves the generation of electricity by development of a wind farm. The generation of electricity does not result in greenhouse gas emissions and therefore project emissions are neglected as per the ACM0002 /6/.

The leakage emissions are neglected as per the ACM0002 /6/.

Since the project and leakage emissions are zero, the emission reduction equals to baseline emissions.

3.4.1 Compliance of the monitoring plan with the monitoring methodology

The registered project activity applies the approved baseline and monitoring methodology ACM0002 version 11.0.0 /6/. 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 /3/.

3.4.2 Deviation in GHG emission reduction

Additionality assessment has been performed according to the "Tool for the demonstration and assessment of additionality" approved by UNFCCC in the registered PDD /1/. The baseline scenario selection and the calculation of emission reductions have been carried out in a conservative manner. An approved CDM methodology, ACM0002 version 11.0.0 has been applied in order to determine the baseline scenario and calculate emission reductions.

3.4.3 Compliance of monitoring with monitoring plan

The monitoring plan presented in the monitoring report version 3.5 of 26/08/2013 and the previous versions for the period of 01/10/2011 to 31/05/2013 (both days included) /2/ complies with the monitoring plan in the registered PDD /1/.

The only monitoring parameter is "Net electricity generation delivered to the grid ($EG_{facility,y}$) 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 the project activity. Two electricity meters are installed at the project site, one is the main meter (Elster, A1500 with serial number 00388184) and the other one is the backup meter (Elster, A1500 with serial number 00388185). The accuracy of the meters is 0.2s as confirmed through the calibration reports /14/ and the test report /15/ performed by TEIAS. The accuracy class of the meters complies with the "Communiqué for Measurement Devices used in the Electricity Market" /16/. The electricity meters are sealed by TEIAS as confirmed during the site visit. 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. The meters have been calibrated by the Meren Enerji on 06/07/2009 as confirmed through the calibration record /14/. As per the "'Regulation of Metering and Testing of Metering Systems", the meters shall be calibrated every 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation /17/. Also the meters are controlled by TEAIS on 22/03/2013 according to the control forms /15/. By the end 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 (OSOS) by the TEIAS personnel since January 2012. Also the PMUM records are available for the project participant. All protocols /12/ /13/ within this monitoring period was checked during the site visit. The PMUM records /12/ were crosschecked with the Monthly Meter Reading Protocols /13/. The Monthly Meter Reading Protocols, PMUM records and emission reduction calculation spreads sheet /8/ are in line. During the monitoring period of 01/10/2011 to 31/05/2013 (both days included) the net electricity supplied to the grid amount to 160,942 MWh and the emission reductions to 96,855 tCO_2e.

According to the monitoring plan in the registered PDD /1/ and in the monitoring report version 3.5 of 26/08/2013 /2/, the following sustainability parameters are monitored: "Air Quality", "Water Quality and Quantity", "Soil Contidion", "Other Pollutants", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation".

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

3.4.3.1 Data fixed ex-ante

DATA/PARAMETER	Source of data	Reported value for the project period	Assessment/Observation
EF Baseline emission factor	TEIAS statistics	0.6018 tCO_2/MWh	As per the approved methodology ACM0002 version 11.0.0, 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 0.6018 tCO_2/MWh in

			the registered PDD /1/ and validation report /7/.

3.4.3.2 Monitored data

DATA/PARAMETER	$EG_{facility,y}$
Data Unit	MWh/yr
Description	Net electricity delivered to the grid
Source of data to be used	PMUM (Market Financial Settlement Center) records and Monthly Meter Reading Records of main meters are cross-checked
Value data for the monitoring period	160,942
Measuring and reporting frequency; recording procedure.	Monitored and recorded hourly in the PMUM system and monthly aggregation is made.
Type of monitoring equipment and its accuracy	Two electricity meters are installed at the project site, one is the main meter (Elster, A1500 with serial number 00388184) and the other one is the backup meter (Elster, A1500 with serial number 00388185). The accuracy of the meters is 0.2s as confirmed through the calibration reports /14/ and the test report /15/ performed by TEIAS.
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. The meters have been calibrated by the Meren Enerji on 06/07/2009 as confirmed through the calibration record /14/. As per the "'Regulation of Metering and Testing of Metering Systems", the meters shall be calibrated every 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation /17/. 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 Monthly Meter Reading Protocols /13/.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions?	By the end of each month, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS personnel since January of 2012. Also the PMUM records are available for the project participant. All protocols /12/ /13/ within this monitoring period was checked during the site visit. The PMUM records /12/ were crosschecked with the monthly meter reading protocols /13/. The plant personnel records the electricity generation from the meters 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.

3.4.3.3 Gold Standard sustainability monitored parameters

Data variable	**Source of Data**	**Reported value for the project period**
Air Quality (SDI. 1)	Electricity Generation	NO_x (177,41 tons/y), CO (23,47 tons/y) and NMVOC (5,94 tons/y) Emissions Calculation
Assessment		
The air quality parameter is monitored with calculation of the NOx, CO and MNVOC emissions due to the electricity generation in 2007. For this monitoring period, 177,41 tons/y NO_x, 23,47 tons/y CO and 5,94 tons/y emissions are avoided.		

Data variable	**Source of Data**	**Reported value for the project period**
Water Quality and Quantity (SDI. 2)	Statement of Village Mayor	Disposal of wastewater
Assessment		
Discharged wastewater is monitored with the statement /18/ /19/ from Mukhtar of the Asagikiriklar Village. According to the document, the wastewater is collected and disposal with a vacuum truck.		

Data variable	**Source of Data**	**Reported value for the project period**
Soil Condition (SDI. 3)	Photos, Delivered Record, Collection Form	Amount of Waste Oil Land utilization
Assessment		
Amount of Waste Oil is monitored with the photos of leak-prof oil tanks /25/ and receipt for transfer to recycling facility /24/. In addition, it is confirmed that the land is rehabilitated during on site-visit.		

Data variable	**Source of Data**	**Reported value for the project period**
Other Pollutants (SDI. 4)	Statement of Village Mayor Environmental Noise Assessment Report	Dust Emission Building Rubbish Noise Pollution
Assessment		
The parameter is monitored with the official letter /18/ /19/ from the Mukhtar of Asagikiriklar Village indicating regular collection of building rubbish from Düzova and transfer to central collection area. According to the interviews with the Mukhtar, The building rubbishes are collected once a week by Bergama Municipality and no dust emission is occurred during the construction of the project activity. Noise Pollution is under the legal limits as per the Environmental Noise Assessment Report /26/.		

Data variable	**Source of Data**	**Reported value for the project period**
Biodiversity (SDI. 5)	Ornithology Report	Number of bird strikes

Assessment
According to the Ornithology Report /11/, and the interviews with the Mukhtar, the villagers and the project manager, there are no risks to the life cycle of birds in the project area and no strike of birds is observed.

Data variable	**Source of Data**	**Reported value for the project period**
Quality of Employment (SDI. 6)	Training Certificates	– Health and Safety Training – Operation and Maintenance Training
Assessment		
During this monitoring period an employee has participated two trainings as confirmed through the Health and Safety Training Records /20/ /21/.		

Data variable	**Source of Data**	**Reported value for the project period**
Quantitative Employment and Income Generation (SDI. 7)	SGK Records Residence Certificate	14 employees have been hired during the operation of the power plant. - 1 Plant Manager - 4 Electric Technicians - 4 Security Guards - 5 Security Guards for Logistic
Assessment		
The project activity creates employment as confirmed through the "SGK records /22/ and Residence Certificate /23/. 14 people have been hired during the operation of the power plant.		

Data variable	**Source of Data**	**Reported value for the project period**
Balance of Payment and Investment (SDI. 8)	TEIAS Statistics Duzova Baseline Calculation excel sheet	Amount of avoided Natural Gas
Assessment		
According to the excel sheet /8/ of the project activity, avoidance of around 15.520 million m3 natural gas import each year by generation of project activity.		

Data variable	**Source of Data**	**Reported value for the project period**
Technology Transfer and Technological Self-Reliance (SDI. 9)	Training Certificates	Total number of trained employee
Assessment		
During on site visit it is confirmed that one employee (Deniz Dogru) gets trained /20/ /21/ in this monitoring period.		

3.4.4 Accuracy of emission reduction calculations

The emission reduction calculations provided in the spreadsheet /8/ have been verified to be correct and in line with the registered PDD /1/.

The emission reductions from the project for the monitoring period as reported in the monitoring report version 3.5 of 26/08/2013 /2/ is equivalent to 96,855 tCO_2e (on average 4,842 tCO_2e per month). The reported emission reductions are 6% lower than the estimated emission reduction of 103,036 tCO_2e (on average 5,151 tCO_2e per month) for the period as per the registered PDD /1/.

The data presented in the monitoring report /2/ were assessed by reviewing in detail project documentation, collection of monitored data, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. Sufficient evidence was presented and verified by RINA for the reported emission reductions as listed in the above Section 3.4.3.2.

3.4.5 Accuracy of the GS indicators of sustainable development

All the documented evidences related to the sustainable monitored parameters such as the statement from Mukhtar /18/ /19/, photos of leak-prof oil tanks /25/, receipt for transfer to recycling facility /24/, environmental noise assessment report /26/, training records /20/ /21/, SGK records /22/ and Residence Certificate /23/ are provided as objective evidences.

3.4.6 Management system and quality control

The electricity generation supplied to the grid and electricity consumption from the grid are read remotely from the electricity meters through Automatic Meter Reading System (OSOS) by the TEIAS personnel. The monthly meter reading protocols are prepared as per these readings. The plant personnel records the electricity generation from the meters and the responsible engineer checks the figures regularly. In case of difference between the data, TEIAS will be informed. The generated electricity is measured by two meters that were sealed by TEIAS. The project owner has no control on the meters.

The electricity generation supplied to the grid and electricity consumption from the grid is stored by PMUM on the web site. The Project owner has an ID and password to access this data on the web site. The project owner can easily access the data by using this portal. The project owner also archives a hardcopy of these protocols, scanned and stored electronically.

The collected data during the monitoring period will be kept by the project owner at least two years after the last issuance of VERs as stated in the registered PDD /1/ and monitoring report /2/ in line with the ACM0002 version 11.0.0 /6/.

4 VERIFICATION AND CERTIFICATION OPINION

RINA Services Spa (RINA) has performed verification of the emission reductions reported for the project activity "Duzova Wind Power Project, Turkey" in Turkey, GS Registration Reference N° 672, for the period 01/10/2011 to 31/05/2013, with regard to the relevant requirements for GS activities.

The project participants of the "Duzova Wind Power Project, Turkey" project are responsible for:

- the preparation of greenhouse gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered Project Design Document version 11 of 14/09/2012
- the development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project

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

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

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

It is RINA's opinion that the GHG emission reductions stated in the monitoring report version 3.5 of 26/08/2013 for the "Duzova Wind Power Project, Turkey" project in Turkey for the period 01/10/2011 to 31/05/2013 are fairly stated. The GHG emission reductions were calculated correctly, the sustainability development indicators were correctly monitored, on the basis of the approved monitoring methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity from renewable sources", version 11.0.0 of 12/02/2010 and the monitoring plan contained in the registered PDD.

Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 01/10/2011 to 31/05/2013 amount to 96,855 tCO_2e.

GHG Emission Reductions or Removals	**tCO_2e**
Baseline Emissions	96,855
Project Emissions	0
Leakage	0
Net GHG emission reductions or removals	**96,855**

Istanbul, 26/08/2013

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

Genova, 30/08/2013

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

APPENDIX A

GOLD STANDARD VERIFICATION PROTOCOL

TABLE 1 REQUIREMENTS CHECKLIST

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
A	**Description of Project Activity**					
A.1	Title of the project activity, revision number and date of Monitoring Report	/1/ /2/ /7/	DR	The title of the project activity is given as "Duzova 30 MW Wind Power Project, Turkey" in the Monitoring Report, version 3.0 of 31/05/2013 /2/ is not in line with the registered PDD /1/ and Validation Report /7/.	~~**CR 1**~~	**OK**
A.2	Is the actual implementation and operation of the proposed project activity in accordance with the project activity in the registered PDD?	/1/	DR, CC, I	It is confirmed during the site visit performed on 19/06/2013 that project activity is implemented and operated as per the registered PDD /1/. The project activity consists of 16 wind turbines with a 30 MWe total installed capacity. It is confirmed during the site visit that all installed turbines are GE 2.5xl (16 turbine) model turbine with an output of 2500 kW. During on site-visit it is confirmed that the turbines have serious breakdowns. In Turbine 3, production of electricity has been stopped due to change in shaft started on 28/05/2012. In Turbine 6, production of electricity has been stopped due to regain a strain on the wing and wing cracks started on 14/08/2012. However, the explanations are not mentioned in the monitoring report.	~~**CR 2**~~	**OK**
A.3	Methodology applied for the registered project activity	/1/ /6/	DR	The registered project activity applies the approved baseline and monitoring methodology ACM0002 version 11.0.0 of 12/02/2010 /6/.		**OK**
B	**Monitoring**					
B.1	**Monitoring plan**					
B.1.1	Does the monitoring plan included in the registered GS project activity comply with the applied methodology?	/1/ /3/ /4/ /6/ /9/	DR, CC	The monitoring plan complies with the applied methodology ACM0002 version 11.0.0 /6/ by the registered GS project activity. Also, the latest version of the monitoring report template /9/ is applied.		**OK**

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

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
B.1.2	Does the monitoring comply with the monitoring plan in the registered PDD?	/1/ /2/ /3/ /4/ /6/	DR, CC	The monitoring complies with the monitoring plan presented in the registered PDD /1/. The only parameter that needs to be monitored is "The net electricity delivered to the grid ($EG_{facility,y}$) as per the ACM0002 version 11.0.0 /6/ and registered PDD /1/. In addition, since the project is developed under Gold standard, the following GS sustainable development parameters are included in the monitoring plan: "Air Quality", "Water Quality and Quantity", "Soil Condition", "Other Pollutants", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment", "Technology Transfer and Technological self-reliance".		**OK**
B.1.3	Do the sustainability indicators included in the monitoring report comply with the minimum contents specified in paragraph 4.1 of the GS toolkit?	/1/ /2/ /3/ /4/	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/ /2/ /6/	DR, CC	No change has been occurred during the monitoring period of 01/10/2011 to 31/05/2013.		**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/ /6/ /7/ /8/	DR, CC	As per the approved methodology ACM0002 version 11.0.0, 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 0.6018 tCO_2/MWh in the registered PDD /1/, validation report /7/ and the emission reduction calculation excel-sheet /8/.		**OK**
B.3 Data and parameters monitored						
B.3.1	Data/Parameter monitored / Data unit / Description / Source of data to be used / Value	/1/ /2/ /6/ /8/ /12/	DR, CC, I	***Electricity supplied by the project activity to the grid ($EG_{facility,y}$):*** The parameter is measured in	~~**CAR 1**~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
	data for the monitoring period	/13/		MWh/yr and it is monitored by two electricity meters that are located at the project activity. The net electricity generation and electricity consumption of the project activity is based on the PMUM official records /12/, which is the basis of invoices. The PMUM records are crosschecked with the monthly meter reading protocols /13/. Since January of 2012, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS personnel. However there is no explanation about this situation. Value of the monitored parameter for net electricity delivered to the grid ($EG_{facility,y}$) is not given in the monitoring report /2/. Estimated amount of GHG emission reductions given in the first page of the monitoring report is not in line with the registered PDD /1/. According to the excel-sheet /8/, data of May are participated in the calculations of generated electricity. Also, the documents of PMUM /12/ and monthly meter reading protocols /13/ for the month of May 2013 has been provided. However, it is still mentioned in the monitoring report that this monitoring period is from 01/10/2011 to 30/04/2013. Please clarify.		
B.3.2	Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate?	/2/ /14/ /15/ /16/	DR, CC,I	Two electricity meters are installed at the project site, one is the main meter (Elster, A1500 with serial number 388184) and the other one is the backup meter (Elster, A1500 with serial number 38185). The accuracy of the meters is 0.2s as confirmed through the calibration report /14/ and the test report /15/ performed by TEIAS. The accuracy class of the meters complies with the "Communiqué for Measurement Devices used in the Electricity Market"	~~**CR 3**~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				/16/. The electricity meters are sealed by TEIAS as confirmed during the site visit. However, the specifications and the accuracy of the meters are not presented in the monitoring report.		
B.3.3	Are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate?	/1/ /2/ /14/ /15/ /17/	DR, CC,I	TEAIS is responsible for calibration and maintenance of the devices as per the registered PDD /1/. The project owner has no control on the meters since the meters are sealed by the TEIAS. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. The meters have been calibrated by the Meren Enerji on 06/07/2009 as confirmed through the calibration record /14/. As per the "'Regulation of Metering and Testing of Metering Systems", the meters shall be calibrated every 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation /17/. Also the meters are controlled by TEAIS on 22/03/2013 according to the control forms /15/. However, calibration dates of the meters are not mentioned in the monitoring report.	~~CR 4~~	**OK**
B.3.4	Is the monitoring frequency adequate for all monitoring parameters? Is it in line with the registered monitoring plan?	/1/ /2/ /6/	DR, CC, I	The electricity generations supplied to the grid and electricity consumptions from the grid are monitored continuously by two meters as verified during the site visit. Monitoring frequency is in line with the applied methodology /6/ and registered PDD /1/.		**OK**
B.3.5	Is the recording frequency adequate for all monitoring parameters? Is it in line with the registered monitoring plan?	/1/ /2/ /6/ /12/ /13/	DR, CC, I	During on site visit, it has been observed that the electricity generation supplied to the grid, electricity consumption from the grid is monitored and recorded hourly in the PMUM system, and monthly aggregation is made.		**OK**
B.3.6	Does data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions?	/1/ /2/ /6/ /12/ /13/	DR, CC, I	By the end of each month, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS personnel since January of 2012.	~~CAR 2~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				The plant personnel records the electricity generation from the meters and the responsible engineer checks the figures regularly. In the case of difference between the data, TEIAS will be informed. Also the PMUM records are available for the project participant. All protocols /12/ /13/ within this monitoring period was checked during the site visit. The PMUM records /12/ were crosschecked with the monthly meter reading protocols /13/. However, May and April 2013 of the table "Summary of calculation of emission reductions or net anthropogenic GHG removals by sinks" given in E.4 has project emission and a high value of leakage emission. Please clarify. In baseline emission calculation after rolling down the data, collection emission reduction generated in 2011 (17,919 tCO_{2e}) and 2012 (58,884 tCO_{2e}) and 2013 (20,050 tCO_{2e}) is not in line with the total emission reduction (96,853 tCO_{2e}). Please also be informed that all TEIAS links are not available.		
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	/11/ /18/ /19/ /20/ /21/ /22/ /23/ /24/ /25/	DR, CC, I	The following GS sustainable development parameters are monitored as per the monitoring plan presented in the registered PDD: "Air Quality", "Water Quality and Quantity", "Soil Condition", "Other Pollutants", "Biodiversity", "Quality of Employment", "Quantitative Employment and Income Generation", "Balance of Payment and Investment", "Technology Transfer and Technological self-reliance". ***Air Quality (Amount of NO_x, CO and NMVOC emissions):*** The air quality parameter is monitored with calculation of the NOx, CO and MNVOC emissions due to the electricity generation in 2007. However, the coefficient for NO_x given in the monitoring report is not in line with the registered	~~**CAR 3**~~	**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				PDD. ***Water Quality and Quantity (Amount of wastewater discharge to the environment to the project area):*** Discharged wastewater is monitored with the statement /18/ /19/ from Mukhtar of the Asagikiriklar Village. According to the document, the wastewater is collected and disposal with a vacuum truck. ***Soil Condition (Amount of waste oil spilled to the environment):*** Amount of Waste Oil is monitored with the photos of leak-prof oil tanks /25/ and receipt for transfer to recycling facility /24/. However, the chosen parameter of "Land utilization in the Project area after completion of project construction" is not discussed in the monitoring report. ***Other Pollutants (Building rubbish during construction and operation of the project):*** The parameter is monitored with the official letter /18/ /19/ from the Mukhtar of Asagikiriklar Village indicating regular collection of building rubbish from Düzova and transfer to central collection area. According to the interviews with the Mukhtar, The building rubbishes are collected once a week by Bergama Municipality. However, Yeniköy Municipality is mentioned in the monitoring report. Please clarify. In addition, the chosen parameter of "Noise during construction and operation of the project activity" and "Level of dust emissions during construction of the project activity" are not discuss in the monitoring report. ***Biodiversity:*** Number of bird strikes is monitored with the Ornithology Report /11/ annually. According to the interviews with the Mukhtar, the villagers and the project manager, no strike of birds is observed. In		

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				addition, it is mentioned in the ornithology report that there is no risks to the life cycle of birds in the project area. ***Quality of Employment:*** The parameter is monitored with the Health & Safety and Operation & Maintenance Trainings. The monitoring period from 01/10/2011 to 31/05/2013 two trainings /20/ /21/ were held for one employee. However, duration and the date of training given in the monitoring report are not compatible with the references. ***Quantitative employment and income generation (Number of employment):*** Number of employment is monitored with the employment contracts. According to the SGK records /22/ and Residence Certificate /23/, 14 people have been hired during the operation of the power plant. - 1 Plant Manager - 4 Electric Technicians - 4 Security Guards - 5 Security Guards for Logistic However, 5 security guards for logistic are not mentioned in the monitoring report. ***Balance of payment and investments (Amount of avoided natural gas to be imported):*** The parameter is monitored with TEIAS statistics for natural gas share in the electricity. However, the values given in the monitoring report as "2011 electricity generation from natural gas" are not in line with the registered PDD. ***Technology transfer and technological self-reliance:*** Total number of employee having operation and maintenance certificates is monitored. During on site visit it is confirmed that one employee (Deniz Dogru) get trained in this monitoring period.		

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
				However, number of trained employee is not mentioned in the monitoring report.		
B.4.2	Is the montiroing in line with the registered monitoring plan?	/1/ /2/	DR, CC	The monitoring complies with the monitoring plan presented in the registered PDD. The following GS sustainable development parameters are monitored as per the registered monitoring plan: “Air Quality”, “Water Quality and Quantity”, “Soil Condition”, “Other Pollutants”, “Biodiversity”, “Quality of Employment”, ”Quantitative Employment and Income Generation”, “Balance of Payment and Investment”, “Technology Transfer and Technological self-reliance”.		**OK**
B.4.3	Does the monitoring report provide for the collection and archiving of relevant data concerning environmental, social and economic impacts?	//12/ /13/ /14/ /15/ /18/ /19/ /20/ /21/ /22/ /23/ /24/ /25/ /11/	DR, CC, I	All the documented evidences related to the sustainable monitored parameters such as pictures, forms, protocols, training certificates, PMUM, monthly meter readings, residence certificates and SGK records, are collected and kept.		**OK**
B.5 Management, quality assurance and quality control						
B.5.1	How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design?	/2/ /6/	DR, I	An onsite inspection has been performed on 19/06/2013 and it is confirmed that the monitoring arrangements in the monitoring plan are feasible within the project design.		**OK**
B.5.2	Are procedures identified for day-to-day record handling (including what records to keep, storage area of records and how to process performance documentation)?	/2/	DR, I	The electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS personnel. The PMUM records are available for the project proponent. The plant personnel records the electricity generation from the meters and the responsible engineer checks the figures regularly. In case of difference between the data, TEIAS will be informed.		**OK**
B.5.3	Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission	/2/	DR, I	The generated electricity is measured by two meters that were sealed by TEIAS. The project owner has no control on the meters.		**OK**

Checklist Question		Reference	MoV[1]	Comments	Draft Conclusion	Final Conclusion
	reductions achieved by/resulting from the project can be reported ex post and verified?			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.		
B.5.4	Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of VERs, for this project activity, whichever occurs later?	/1/ /2/ /6/	DR, I	The information "The collected data during the monitoring period will be kept by the project owner at least two years after the last issuance of VERs" is not stated in the monitoring report /2/.	~~**CR 5**~~	**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 Since January of 2012, the electricity generation supplied to the grid and electricity consumption from the grid is read remotely from the electricity meters by Automatic Meter Reading System (OSOS) by the TEIAS personnel. However there is no explanation about this situation. Value of the monitored parameter for net electricity delivered to the grid ($EG_{facility,y}$) is not given in the monitoring report /2/. Estimated amount of GHG emission reductions given in the first page of the monitoring report is not in line with the registered PDD /1/. According to the excel-sheet /8/, data of May are participated in the calculations of generated electricity. Also, the documents of PMUM /12/ and monthly meter reading protocols /13/ for the month of May 2013 has been provided. However, it is still mentioned in the monitoring report that this monitoring period is from 01/10/2011 to 30/04/2013. Please clarify.	B.3.1	The explanation related with remote reading system is added under section C.2.1 Value of monitored data which net electricity generation is added under section D.2 Estimated amount of GHG emission reductions is corrected with inline with PDD. The monitoring period is revised to include electricty generation of May 2013. Response2: Section E.5 value of estimated emission reduction is revised. Section E.7: The values are revised. Section E.4: the title is corrected. Monitoring table is revised with correct date of monitoring period. Response3: the date of the title is revised as in MR.	**Review 1 (17/07/2013):** The explanation about Remote Meter Reading System was added to the monitoring report. Value of the monitored parameter for net electricity delivered to the grid ($EG_{facility,y}$) is now given in the monitoring report /2/. Estimated amount of GHG emission reductions given in the first page of the monitoring report is corrected and is now in line with the registered PDD /1/. However, in Section E.5 “Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD” it is still mentioned as 188,955. In addition, in section E.7 “Actual emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards, the data for the first commitment period was not defined and for the second commitment period the data given as 12,118 is not in line with the excel sheet. Also, the title given for the emission reductions of 2011 2012 and 2013 is not true. It is mentioned as 2010 and 2011 in the monitoring report. The monitoring period is still mentioned as 30/04/2013 in the milestone (Table 1) in the monitoring report. **Hence, CAR 1 is not closed.** **Review 2 (25/07/2013):** In “Values estimated in ex-ante calculation of registered PDD” the value is corrected as 118,100 and is now in line with the registered PDD /1/.

<table>
<tr><th>Corrective action and/ or clarification requests</th><th>Reference to Table 1</th><th>Response by project participants</th><th>Verification conclusion</th></tr>
<tr><td></td><td></td><td></td><td>The data for the first commitment period and the second commitment period were corrected and now in line with the excel sheet.
Also, the title given for the emission reductions of 2011 2012 and 2013 is still not true. It is mentioned as 2011, 2012and 2012 in the monitoring report.
<u>Hence, CAR 1 is not closed.</u>

<u>Review 3 (25/07/2013):</u>
The title given for the emission reductions of 2011 2012 and 2013 is corrected in the monitoring report.
<u>Hence, CAR 1 is closed.</u></td></tr>
<tr><td>CAR 2
May and April 2013 of the table “Summary of calculation of emission reductions or net anthropogenic GHG removals by sinks” given in E.4 has project emission and a high value of leakage emission. Please clarify.
In baseline emission calculation after rolling down the data, collection emission reduction generated in 2011 (17,919 tCO_{2e}) and 2012 (58,884 tCO_{2e}) and 2013 (20,050 tCO_{2e}) is not in line with the total emission reduction (96,853 tCO_{2e}).
Please also be informed that all TEIAS links are not available.</td><td>B.3.6</td><td>The value for May and April 2013 was corrected in revised MR.

In the baseline calculation rolling down is corrected as in revised MR.

Altough there is no need to revise the links in the ex ante data, the links that is not working is revised on demand of DOE.

Response2: Could you please be more clear which value is not with line with excel sheet? The baseline value of excel sheet for April 2013 and May 2013 is as follows:
<table><tr><td>Apr-13</td><td>6.878,10</td></tr><tr><td>May.13</td><td>6.185,56</td></tr></table>
And this is reflected to table E.4. Summary of</td><td><u>Review 1 (17/07/2013):</u>
In the table “Summary of calculation of emission reductions or net anthropogenic GHG removals by sinks”, for the baseline emissions for April and May of 2013 is still not in line with the excel sheet.
In calculation the sum of the emission reductions in 2011 (17,920 tCO_2), 2012 (58,885 tCO_2) and 2013 (20,050 tCO_2) is now in line with the total emission reduction (98,855 tCO_2).
The links given below still are not available;
• http://www.epdk.org.tr/yayin_rapor/elektrik/yayin/uretimKapasiteProjeksiyonu.pdf
• http://www.epdk.org.tr/yayin_rapor/elektrik/yayin/uretimKapasiteProjeksiyonu2008_2017.pdf
• http://www.mimag-samko.com.tr/akiskan_yatakli_kazanlar.pdf
• http://cdm.unfccc.int/methodologies/Tools/EB35_repan12_Tool_grid_emission.pdf
<u>Hence, CAR 2 is not closed.</u></td></tr>
</table>

<table>
<tr><th>Corrective action and/ or clarification requests</th><th>Reference to Table 1</th><th>Response by project participants</th><th>Verification conclusion</th></tr>
<tr><td></td><td></td><td>calculation of emission reductions or net anthropogenic GHG removals by sinks as:

<table><tr><td>Apr-13</td><td>6,878.10</td></tr><tr><td>May.13</td><td>6,185.56</td></tr></table>
The links mentioned are copied from ex-ante values of PDD which is already registered and do not require to be monitored. While monitoring report does not have to prove the correctness of ex-ante values, there is no need to revise the links. Please revisit your comment.

Response3: the values are corrected as in line with baseline in revised MR.</td><td><u>Review 2 (25/07/2013):</u>
6.878,10 and 6.185, 56 for April and May refers to the “Net Electricity supplied to the grid (MWh)” in the excel sheet. However, in the Table E.4. baseline emissions were presented for each months. The project activity has no project or leakage emission. Therefore, the baseline and the emission reduction should be presented as equal in the table E.4. For April, the value is 4.139,24 and for May the value is 3.722.47.
<u>Hence, CAR 2 is not closed.</u>

<u>Review 3 (25/07/2013):</u>
The values for April and May were revised in the table E.4 in the monitoring report, version 3.3 of 25/07/2013 and now in line with the excel sheet.
<u>Hence, CAR 2 is closed.</u></td></tr>
<tr><td>CAR 3
Air Quality (Amount of NO_x, CO and NMVOC emissions): The air quality parameter is monitored with calculation of the NOx, CO and MNVOC emissions due to the electricity generation in 2007. However, the coefficient for NO_x given in the monitoring report is not in line with the registered PDD.

Soil Condition (Amount of waste oil spilled to the environment): The chosen parameter of “Land utilization in the Project area after completion of project construction” is not discussed in the monitoring report.

Other Pollutants (Building rubbish during construction and operation of the project): The parameter is monitored with the official letter /18/</td><td>B.4.1</td><td>Air Quality: the data for NOx revised according to the registered GS Passport.

Soil Condition: Land utilization was added under indicator in revized MR

Other polutants (building rubbish): previously the rubbish were collected by Yenikent Municipality. The MR is revised in line with statement of Mukhtar.
The parameters of Noise during construction and operation of the project activity” and “Level of dust emissions during construction of the</td><td><u>Review 1 (17/07/2013):</u>
Air Quality (Amount of NO_x, CO and NMVOC emissions): The coefficients and the calculations of the NOx, CO and MNVOC emissions are corrected in the excel sheet and now in line with the monitoring report.
Soil Condition (Amount of waste oil spilled to the environment): The chosen parameter of “Land utilization in the Project area after completion of project construction” is now discussed in the monitoring report. In addition, it is confirmed that the land is rehabilitated during on site-visit. However, it is still mentioned that during first and second monitoring periods in the way of monitoring although the third and fourth monitoring periods are mentioned in the registered Passport.</td></tr>
</table>

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
/19/ from the Mukhtar of Asagikiriklar Village indicating regular collection of building rubbish from Düzova and transfer to central collection area. According to the interviews with the Mukhtar, The building rubbishes are collected once a week by Bergama Municipality. However, Yeniköy Municipality is mentioned in the monitoring report. Please clarify. In addition, the chosen parameter of "Noise during construction and operation of the project activity" and "Level of dust emissions during construction of the project activity" are not discussed in the monitoring report. ***Quality of Employment:*** The parameter is monitored with the Health & Safety and Operation & Maintenance Trainings. The monitoring period from 01/10/2011 to 31/05/2013 two trainings /20/ /21/ were held for one employee. However, duration and the date of training given in the monitoring report are not compatible with the references. ***Quantitative employment and income generation (Number of employment):*** Number of employment is monitored with the employment contracts. According to the SGK records /22/ and Residence Certificate /23/, 14 people have been hired during the operation of the power plant. - 1 Plant Manager - 4 Electric Technicians - 4 Security Guards - 5 Security Guards for Logistic However, 5 security guards for logistic are not mentioned in the monitoring report. ***Balance of payment and investments (Amount of avoided natural gas to be imported):*** The		project activity" are now added to the revised MR. Quality of Employment:the duration and date of trainings are vised in MR. Quantitative Employment: 5 security guards were added to MR. Balance of payment: the values in MR is revised to be inline with GS passport. Please see revised Düzova Baseline calculation The number of trained person was added under revised MR	***Other Pollutants (Building rubbish during construction and operation of the project):*** According to the interviews with the Mukhtar of the Assagikiriklar Village, the building rubbishes are collected once a week by Bergama Municipality. However, Yenikent Municipality is mentioned in the mitigation measure of the other pollutants. "Noise during construction and operation of the project activity" and "Level of dust emissions during construction of the project activity" are now discussed in the monitoring report. Also the level of environmental noise assessment report /26/ was provided to the verification team. ***Quality of Employment:*** The dates of trainings given in the monitoring report are now compatible with the references /20/ /21/. ***Quantitative employment and income generation (Number of employment):*** 5 security guards for logistic are now mentioned in the monitoring report. ***Balance of payment and investments (Amount of avoided natural gas to be imported):*** In section D.1.8.a, current situation and future target of parameter are not in line with the registered PDD. ***Technology transfer and technological self-reliance:*** Number of trained employee is now mentioned as one employee in the monitoring report. **Hence, CAR 3 is not closed.** **Review 2 (25/07/2013):** ***Soil Condition (Amount of waste oil spilled to the environment):*** It is now mentioned that during first, second, third and fourth monitoring

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
parameter is monitored with TEIAS statistics for natural gas share in the electricity. However, the values given in the monitoring report as "2011 electricity generation from natural gas" are not in line with the registered PDD. ***Technology transfer and technological self-reliance:*** Total number of employee having operation and maintenance certificates is monitored. During on site visit it is confirmed that one employee (Deniz Dogru) get trained in this monitoring period. However, number of trained employee is not mentioned in the monitoring report.		Response2: Soil Condition: the timing of monitoring is revised in MR The name of Yenikent Municipality in mitigation measure is revised as «municipality». Section D.1.8.a, Current and future target is revised.	periods in the "Way of Monitoring" which is line with the registered Passport. ***Other Pollutants (Building rubbish during construction and operation of the project):*** The name of the Municipality "Yenikent" was deleted for not to be misunderstood. ***Balance of payment and investments (Amount of avoided natural gas to be imported):*** In section D.1.8.a, current situation and future target of parameter were revised as per the registered PDD. **Hence, CAR 3 is closed.**
CR 1 The title of the project activity is given as "Duzova 30 MW Wind Power Project, Turkey" in the Monitoring Report, version 3.0 of 31/05/2013 /2/. is not in line with the registered PDD /1/ and Validation Report /7/.	A.1	The name of plant is revised to be inline with PDD and GS passport. Response2: the name of the project is revised as in line with PDD.	**Review 1 (17/07/2013):** The title of the project activity is given as "Duzova MW Wind Power Project, Turkey" in the Monitoring Report, version 3.1 of 16/07/2013 /2/. is not in line with the registered PDD /1/ and Validation Report /7/. **Hence, CR 1 is not closed.** **Review 2 (25/07/2013):** The title of the project activity is given as "Duzova Wind Power Project, Turkey" in the Monitoring Report, version 3.2 of 24/07/2013 /2/. is now in line with the registered PDD /1/ and Validation Report /7/. **Hence, CR 1 is closed.**
CR 2 During on site-visit it is confirmed that the turbines have serious breakdowns. In Turbine 3, production of electricity has been stopped due to change in shaft started on 28/05/2012. In Turbine 6, production of electricity has been stopped due	A.2	The eplanations about breakdowns was added under section of B.1 of revised MR Response2: The date of operation of Turbine 6 is corrected.	**Review 1 (17/07/2013):** The explanations about the breakdowns for Turbine 3 and 6 were added to Table 1 "Milestones". However, the date of the operation for Turbine 6 is not correct. During on site-visit PP confirmed that turbine 6 was in operation on

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
to regain a strain on the wing and wing cracks started on 14/08/2012. However, the explanations are not mentioned in the monitoring report.			26/09/2012. **Hence, CR 2 is not closed.** **Review 2 (25/07/2013):** The date of operation of Turbine 6 is corrected as 26/09/2012. **Hence, CR 2 is closed.**
CR 3 The specifications and the accuracy of the meters are not presented in the monitoring report.	B.3.2	Specification of meters were added under section C.1. The accuracy class of the meters are within line as stated in MR section C.1. Response2: the accuracy of meters is also added to the table.	**Review 1 (17/07/2013):** The specifications (device, model and serial number) of the electricity meters are now presented in a teble. However, the accuracy of the electricity meters that is confirmed as 0.2s during on site-visit are still not presented in the MR. **Hence, CR 3 is not closed.** **Review 2 (25/07/2013):** The accuracy of the electricity meters were presented in the Monitoring Report, version 3.2 of 24/07/2013. **Hence, CR 3 is closed.**
CR 4 Calibration dates of the meters are not mentioned in the monitoring report.	B.3.3	The calibration date of meter is added under section C.1 of MR	**Review 1 (17/07/2013):** The calibration date (22/03/2013) and the installation date (July 2009) were added to the monitoring report. Therefore, it could be confirmed that the electricity meters have time to be calibrated as per the Regulation of Metering and Testing of Metering Systems /17/. **Hence, CR 4 is closed.**
CR 5 The information “The collected data during the monitoring period will be kept by the project owner at least two years after the last issuance of VERs” is not stated in the monitoring report /2/.	B.5.4	The mentioned statement was added under section C.2.2	**Review 1 (17/07/2013):** The information “The collected data during the monitoring period will be kept by the project owner at least two years after the last issuance of VERs” is now stated in the monitoring report

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Verification conclusion
			/2/. **Hence, CR 5 is closed.**