



RINA

GOLD STANDARD VALIDATION REPORT

Final

“Sadilli Wind Farm Project, Turkey”
in
Turkey

Report N° 2012-TQ-44-MD

Revision N° 1.3



GOLD STANDARD VALIDATION REPORT

Project Title: Sadilli Wind Farm Project, Turkey		Country: Turkey	Estimated VERs (tCO₂e): 67,074	
Client: Canres Elektrik Uretim A.S.		Client contact: Ms. Ozlem COLAK		
Report No.: 2012-TQ-44-MD		Revision: 1.3	Date of this report: 19/08/2013	
Approved by (Final Report – Authorized officer signing for the DOE):  Laura Severino			Date of approval: 16/09/2013	
Methodology				
Number: ACM0002	Version: 13.0.0 of 11/05/2012	Title: Consolidated baseline methodology for grid-connected electricity generation from renewable sources	Scale Large	SS(s): 1
RINA Services S.p.A. (RINA), commissioned by Canres Elektrik Uretim A.S., has performed the validation of the project activity “Sadilli Wind Farm Project, Turkey” in Turkey, with regard to the relevant requirements for GS activities. In conclusion, it is RINA’s opinion that the project activity “Sadilli Wind Farm Project, Turkey”, in “Turkey”, as described in the PDD version 1.5 of 11/09/2013, meets all relevant requirements for GS activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012.				

Work carried out by: Isil TIMUROGLU Casper VAN DER TAK Tugce KIRATLI	☒ No distribution without permission from the Client or organizational unit responsible ☐ Strictly confidential ☐ Unrestricted distribution
Work verified by (Final Report – Scheme Manager)  Rita Valoroso	Keywords: Climate Change, Kyoto Protocol, Validation, 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
CH ₄	Methane
CR	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CRT	Coordination and Technical Control Staff
DCI	Certification Division of RINA Services Spa
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
EMRA	Energy Market Regulatory Authority
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GS	Gold Standard
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
LSC	Local Stakeholder Consultation
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)
Ref.	Document Reference
RINA	RINA Services Spa
SD	Sustainability Development
SMP	Sustainability Monitoring Plan
SS(s)	Sectoral Scope(s)
TEIAS	Turkish Electricity Transmission Company
UNFCCC	United Nations Framework Convention on Climate Change
VER	Voluntary Emission Reduction

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1 INTRODUCTION

Canres Elektrik Uretim A.S. has commissioned RINA to carry out the validation of the “Sadilli Wind Farm Project, Turkey” project in Turkey.

This report summarizes the findings of the validation 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 Validation is to have an independent evaluation of a project activity by a designated operational entity against the requirements of the GS VER as set out in decision 3/CMP.1, its annex and relevant decisions of the COP/MOP, on the basis of the project design document. In particular, the project's baseline, monitoring plan, and the project's compliance with relevant UNFCCC, GS requirements and host Party criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all GS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified emission reductions (VERs).

1.2 Scope

The validation scope is to review the PDD against the UNFCCC criteria for GS VER, which refers to CDM rules.

UNFCCC criteria for GS VER refer to Article 12 of the Kyoto Protocol, the GS VER modalities and procedures, and the subsequent decisions by the Gold Standard Foundation.

Validation 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 project design.

2 GYValidation consisted of the following three phases:

- Document review;
- Follow-up actions;
- The resolution of outstanding issues and the issuance of the final validation report.

The following sections outline each step in more detail.

2.1 Document Review

The PDD version 1.5 of 11/09/2013 and previous versions [/1/](#), GS Passport version 1.5 of 15/08/2013 and previous versions [/2/](#), in particular the applicability of the methodology, the baseline determination, the additionality of the project activity, the starting date of the project, the monitoring plan, the financial assessment calculation sheet provided in the form of a spreadsheet, “Sadilli-BL-v1.4-20130815.xlsx” version 1.4 of 15/08/2013 [/4/](#), the emission reduction calculations provided in the form of a spreadsheet, “Sadilli-BL-v1.4-20130815.xlsx” version 1.4 of 15/08/2013 [/6/](#), were assessed as part of the validation.

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

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/1/	Mavi Consultants: GS-PDD for project activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.0 of 24/09/2012 Mavi Consultants: GS-PDD for project activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.1 of 27/02/2013 Mavi Consultants: GS-PDD for project activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.2 of 19/04/2013 Mavi Consultants: GS-PDD for project activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.3 of 29/04/2013 Mavi Consultants: GS-PDD for project activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.4 of 15/08/2013 Mavi Consultants: GS-PDD for project activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.5 of 11/09/2013
/2/	Mavi Consultants: Gold Standard Passport for Project Activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.2 of 24/09/2012 Mavi Consultants: Gold Standard Passport for Project Activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.3 of 27/02/2013 Mavi Consultants: Gold Standard Passport for Project Activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.4 of 19/04/2013 Mavi Consultants: Gold Standard Passport for Project Activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.5 of 15/08/2013
/3/	Mavi Consultants: Local Stakeholder Consultation Report for Project Activity “Sadilli Wind Farm Project, Turkey” in Turkey, version 1.1 of 30/10/2012 Mavi Consultants: Local Stakeholder Consultation Report for Project Activity “Sadilli Wind Farm Project, Turkey” in Turkey of 27/02/2013
/4/	Mavi Consultants: Financial Assessment Calculation Spreadsheet “Sadilli_Financial_model.xls” version 01, submitted on 28/09/2012 Mavi Consultants: Financial Assessment Calculation Spreadsheet “Sadilli-BL-v1.2-20130227.xlsx”, version 1.2 of 27/02/2013 Mavi Consultants: Financial Assessment Calculation Spreadsheet “Sadilli-BL-v1.3-20130419-NoTaxIRR.xlsx”, version 1.3 of 19/04/2013 Mavi Consultants: Financial Assessment Calculation Spreadsheet “Sadilli-BL-v1.4-20130815.xlsx”, version 1.4 of 15/08/2013 Mavi Consultants: Financial Assessment Calculation Spreadsheet “Sadilli-BL-v1.4-20130815-NoTaxIRR.xlsx”, version 1.4 of 15/08/2013
/5/	Mavi Consultants: Cash Flow Spreadsheet “7-PP-Cashflow.xls” version 01, submitted on 28/09/2012
/6/	Mavi Consultants: Emission Reduction Calculation Spreadsheet “Sadilli-BL-v1.1-20120924.xls” version 1.1 of 24/09/2012 Mavi Consultants: Emission Reduction Calculation Spreadsheet “Sadilli-BL-v1.2-20130227.xlsx” version 1.2 of 27/02/2013 Mavi Consultants: Emission Reduction Calculation Spreadsheet “Sadilli-BL-v1.3-20130419.xlsx” version 1.3 of 19/04/2013 Mavi Consultants: Financial Assessment Calculation Spreadsheet “Sadilli-BL-v1.4-20130815.xlsx”, version 1.4 of 15/08/2013
/7/	The Gold Standard: Requirements, version 2.1 of 1 June 2009
/8/	The Gold Standard: Toolkit and related Annexes (A – S), version 2.1 of 1 June 2009
/9/	CDM Executive Board: Clean Development Mechanism Project Standard, version 03.0 of 12/04/2013
/10/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard, version 3.0 of 23/11/2012
/11/	CDM Executive Board: Baseline and monitoring methodology “ACM0002”, “Consolidated

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	baseline methodology for grid-connected electricity generation from renewable sources", version 13.0.0 of 11/05/2012
/12/	CDM Executive Board: Methodological Tool "Tool for demonstration and assessment of additionality", version 06.1.0 of 13/09/2012
/13/	CDM Executive Board: Methodological Tool "Tool to calculate the emission factor for an electricity system", version 02.2.1 of 29/09/2011
/14/	CDM Executive Board: Guidelines on the Assessment of Investment Analysis, version 05 of 15/07/2011
/15/	CDM Executive Board, Glossary of CDM terms, version 07.0 of 23/11/2012
/16/	CDM Executive Board: Guidelines on the Demonstration and Assessment of Prior Consideration of the CDM, version 04 of 15/07/2011
/17/	CDM Executive Board: Project Design Document Form for CDM Project Activities (F-CDM-PDD), version 04.1 of 11/04/2012
/18/	CDM Executive Board: Guidelines for Completing the Project Design Document Form, version 03.1 of 03/12/2012
/19/	Website: http://maindb.unfccc.int/public/country.pl?country=TR Argument: UNFCCC, Parties and Observers States, Turkey Language: English, Retrieved on: 04/12/2012
/20/	Turkish Electricity Transmission Company (TEIAS) and Canres Elektrik Uretim A.S.: Contribution Fee Agreement of 08/12/2011
/21/	Fina Energy: Health, Safety, Environmental and Quality Policy Rev 0 of 11/11/2011
/22/	Energy Market Regulatory Authority: Generation License numbered EU/3696-3/2248 of 15/02/2012 (based on 33 MW installed capacity)
/23/	Energy Market Regulatory Authority: Approval Letter of Generation License Amendment of 24/05/2012 (based on 38.5 MWm/33 MWe installed capacity) Energy Market Regulatory Authority: Approval Letter of Generation License Amendment of 24/05/2012 (new location of T1) Energy Market Regulatory Authority: Generation License Amendment Application of 26/12/2012 (new location of T1)
/24/	AECOM Turkey: Environmental and Social Impact Assessment of Sadilli Wind Farm Project, Turkey of 07/05/2012
/25/	GE Wind Energy GmbH and Canres Elektrik Uretim A.S.: Wind Turbine Generator Agreement of 28/02/2012
/26/	GL Garrad Hassan Deutschland GmbH: Update Assessment of the Energy Production of the Proposed Sadilli Wind Farm of 31/01/2012
/27/	Website: http://webfusion.ilo.org/public/db/standards/normes/appl/appl-byCtry.cfm?lang=en&CTYCHOICE=0660 Argument: International Labour Standards: List of Ratifications of International Labour Conventions by Turkey Language: English, Retrieved on: 05/12/2012
/28/	Envy Energy and Environmental Investments Inc.: Preliminary EIA Report of September 2011
/29/	Çanakkale Governorship Environment and Urbanization Directorate: EAI Not Required Certificate of 26/01/2012
/30/	Tekirdag Governorship Culture and Tourism Directorate, Museum Directorate: Archeological Findings Report of 17/08/2012
/31/	CDM Executive Board: Methodological Tool "Tool to determine the remaining lifetime of equipment", version 01 of 16/10/2009
/32/	Ziyaret RES Elektrik Uretim San. ve Tic. A.S.: CAPEX Sheet of 2010 and 2011
/33/	Ziyaret RES Elektrik Uretim San. ve Tic. A.S.: OPEX Sheet of 2010 and 2011

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/34/	Turkiye Kalkinma Bankasi A.S.: Loan Term Sheet
/35/	GE Wind Energy GmbH: Turbine Technical Data Sheet of 2.75-100 Wind Turbine, Document No GEA18379A of May 2011
/36/	Bektaş İnşaat Taahhüt San. Tic. Ltd. Sti.: Mail of Daily Construction Report - 03/09/2012
/37/	Fina Enerji: Carbon Development Service Request Email of 16/11/2011
/38/	Fina Enerji: Carbon Development Service Approval Email of 29/12/2011
/39/	Intergovernmental Panel on Climate Change: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2, Chapter 1, Table 1.4 "Default CO ₂ Emission Factors for Combustion"
/40/	Turkish Energy Market Regulatory Authority: Communiqué for Measurement Devices used in the Electricity Market of 22/03/2003
/41/	The Energy Market Regulatory Authority: Electricity Market Balancing and Settlement Regulation of 14/04/2009
/42/	Turkish Electricity Transmission Company (TEİAŞ): Electricity Generation & Transmission Statistics Of Turkey, 2010
/43/	Turkish Electricity Transmission Company (TEİAŞ): Turkish Electrical Energy 10-Year Generation Capacity Projection (2007-2016), of July 2007 Turkish Electrical Energy 10-Year Generation Capacity Projection (2008-2017), of July 2008 Turkish Electrical Energy 10-Year Generation Capacity Projection (2009-2018), of June 2009 Turkish Electrical Energy 10-Year Generation Capacity Projection (2010-2019), of October 2010 Turkish Electrical Energy 10-Year Generation Capacity Projection (2011-2020), of November 2011
/44/	Fina Energy: Emergency Action Plan Procedure Rev 1 of 04/05/2012
/45/	Gold Standard Foundation: Sadilli 38.5 MW Wind Farm Project, Çanakkale, Turkey (GS 1237), Local Stakeholder Consultation Report Review Feedback of 22/11/2012
/46/	Website: http://www.turkstat.gov.tr/PreHaberBultenleri.do?id=6171&tb_id=2 Argument: Turkish Statistical Institute (TUIK), Thermal Power Plants Water, Wastewater and Waste Statistics, 2010 Language: English, Retrieved on: 30/01/2013
/47/	Website: http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/6598.php Argument: UNFCCC Turkey National Inventory Report, 1990-2010 Language: English, Retrieved on: 30/01/2013
/48/	The Ministry of Environment and Forestry: Environmental Impact Assessment Regulation of 17/07/2008
/49/	Çanakkale Governorship Environment and Urbanization Directorate: EAI Exemption Revision of 03/08/2012
/50/	Istanbul Technical University: Preliminary Report for Geotechnical Assessment written by Prof. Dr. Okan Tuysuz, submitted on 27/02/2013
/51/	Canres Elektrik Üretim A.S.: Daily Activity Sample Reports of 03/09/2012
/52/	Fina Energy: Occupational Health and Safety Training of 05/10/2012 for 11 employees
/53/	Fina Energy: Internal Waste Disposed Protocol of 01/09/2012
/54/	Kesan Dal Heavy Transport Services-Vacuum Truck: Invoice of Vacuum – 26/01/2013
/55/	Nature Research Society: Ornithology Study Report of August-October/2012
/56/	ING Bank and Canres Elektrik Üretim A.S.: Loan Agreement of 19/12/2012
/57/	Bektaş İnşaat and Canres Elektrik Üretim A.S.: Construction Contract of 06/08/2012
/58/	ING Bank to Fina Enerji: Email of Application for Certification of Carbon - 29/12/2011

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/59/	The World Bank: Loan Appraisal Document 46808TR of 01/05/2009
/60/	Republic of Turkey Ministry of Economy: Incentive Document of 12/07/2012
/61/	Website: http://www.finaenerji.com.tr/santrallerimiz_ve_projelerimiz.php?dil=en Argument: Fina Energy, Wind Power Projects Language: English; Retrieved on: 10/05/2013
/62/	Website: http://mer.markit.com/br-reg/public/project.jsp?project_id=103000000002255 Argument: Markit Registry / Duzova Wind Power Project, Turkey Language: English; Retrieved on: 10/05/2013
/63/	Website: http://mer.markit.com/br-reg/public/project.jsp?project_id=103000000002310 Argument: Markit Registry / Ziyaret 57.5 MW Wind Power Project, Turkey Language: English; Retrieved on: 10/05/2013
/64/	Website: http://mer.markit.com/br-reg/public/index.jsp?p=7&s=cp&q=&r=100000000000032&u=&scolumn=project_name&sdir=ASC Argument: Markit Registry / Gold Standart Registered Projects Language: English; Retrieved on: 10/05/2013
/65/	Turkish Electricity Transmission Company (TEIAS): Turkish Electrical Energy 10-Year Generation Capacity Projection (2012-2021), of July 2012
/66/	Turkish Electricity Transmission Company (TEIAS): Electricity Generation & Transmission Statistics Of Turkey, 2010 Website: http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2010/front%20page%202010-%C3%A7i%C3%A7ek%20kitap/yak%C4%B1t46-49/49.xls Argument: Turkey's Gross Electricity Generation By Primary Energy Resources and the Electric Utilities (2006-2010) (Fuel Heating Values) Language: Turkish and English, Retrieved on: 19/04/2013 Website: http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2010/front%20page%202010-%C3%A7i%C3%A7ek%20kitap/uretim%20tuketim(22-45)/35(75-10).xls Argument: Turkey's Gross Electricity Generation By Primary Energy Resources and the Electric Utilities (2006-2010) (Fuel Consumption) Language: Turkish and English, Retrieved on: 19/04/2013 Website: http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2010/front%20page%202010-%C3%A7i%C3%A7ek%20kitap/uretim%20tuketim(22-45)/33(84-10).xls Argument: Turkey's Gross Electricity Generation By Primary Energy Resources and the Electric Utilities (2006-2010) (Net Generation Data) Language: Turkish and English, Retrieved on: 19/04/2013
/67/	Website: http://www.deloitte.com/assets/Dcom-Global/Local%20Assets/Documents/Tax/Taxation%20and%20Investment%20Guides/2012/dt%20tax%20guide%202012%20Turkey.pdf Argument: Deloitte, Taxation and Investment in Turkey 2012. Language: English, Retrieved on: 16/05/2013

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/68/	The Ministry of Energy and Natural Resources: Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy, Law No. 5346, Enactment Date: 18/05/2005
/69/	International Renewable Energy Agency, Renewable Energy Technologies: Cost Analysis Series. Volume 1: Power Sector. Issue 5/5 Wind Power (2012)
/70/	The Presidency of the Turkish Revenue Administration: Corporate Tax Law, Law No. 7229, Enactment Date: 10/06/1949
/71/	ING Bank: Confirmation e-mail about the inclusion of carbon income in the Project's financial feasibility studies

2.2 Follow-up Actions

On 22/01/2013, RINA visited project site located at Gelibolu District of Çanakkale Province and Şarköy District of Tekirdag Province to resolve questions and issues identified during the document review and to perform interviews with relevant stakeholders in the host country.

During on site visit, local women and local men were visited in the coffee houses. They were interviewed about the benefits and harms of the project, local employment, bird migration route and hunting. No negative feedback has been received 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/	22/01/2013	Metin ÇELİK <i>PDD/VER Consultant</i>	Mavi Consultant	Description of the project activity Baseline and Additionality
/b/	22/01/2013	Özlem ÇOLAK <i>Senior Business Development Specialist</i>	Canres Elektrik Uretim A.S.	Emission reductions calculations Monitoring plan and monitoring arrangements
/c/	22/01/2013	Ali ÇENGEL <i>Health and Safety Engineer</i>	Canres Elektrik Uretim A.S.	GS Sustainable Indicators Local stakeholder consultation Environmental and social impacts
/d/	22/01/2013	Ali ÖZEN <i>Cadastral Mapping Technician</i>	Canres Elektrik Uretim A.S.	Timeline of the Project Local Employment Archeological Findings
/e/	22/01/2013	Sertaç YURDAKUL	Canres Elektrik Uretim A.S.	Bird Migration Route
/f/	22/01/2013	Uğur KURUBAS <i>Local Employee</i>	Canres Elektrik Uretim A.S.	Local Employment Working Conditions
/g/	22/01/2013	Mehmet COBAN <i>Villager</i>	Elmadag Village	Local stakeholder consultation and comments
/h/	22/01/2013	Bayram DİZGİN <i>Villager</i>	Elmadag Village	Environmental impacts of the project activity Social impacts of the project activity
/i/	22/01/2013	Musa YAZAR <i>Villager</i>	Elmadag Village	Local Employment Archeological Findings
/j/	22/01/2013	Habibe Demir <i>Villager</i>	Elmadag Village	Hunting
/k/	22/01/2013	Hanife Biyik <i>Villager</i>	Elmadag Village	Water shortage and waste pollution

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/I/	22/01/2013	Sabriye Akyol <i>Villager</i>	Elmadag Village	Bird Migration Route
/m/	22/01/2013	Alime Yazar <i>Villager</i>	Elmadag Village	
/n/	22/01/2013	Gulcan Bayir <i>Villager</i>	Elmadag Village	

2.3 Resolution of Outstanding Issues

The objective of this phase of the validation is to resolve any outstanding issues which need to be clarified for RINA's positive conclusion on the project design.

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

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

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.
- The GS VER requirements have not been met.
- There is a risk that the emission reductions cannot be monitored or calculated.

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

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Figure 1 Gold Standard Validation protocol tables

Validation Protocol, Table 1 - Requirement checklist				
Checklist Question	Ref.	MoV	Comments	Conclusion
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is 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, CL and FAR see the definitions above. OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM/GS requirements.

Validation 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	Validation Conclusion
The CAR and/or CLs raised in table 1 are repeated here.	Reference to the checklist question number in Table 1 where the CAR or CL is explained.	The responses given by the project participants to address the CARs and/or CLs.	The validation team's assessment and final conclusion of the CARs and/or CLs.

Validation Protocol, Table 3 - Forward Action Requests (if no FAR the table 3 is deleted)		
Forward action request	Reference to Table 1	Response by project participants Validation 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 prior to first verification.

2.4 Internal Quality Control

All the revisions of the validation report before being submitted to the client were subjected to an independent internal technical review to confirm that all validation 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 GS VER validation and verification.

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2.5 Validation Team and the Technical Reviewer(S)

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

Role/Qualification	Last Name	First Name	Country
Team Leader, GS Validator, Technical Expert	Timuroglu	Isil	Turkey
Financial Expert	Van Der Tak	Casper	Italy
Validator in Training, Technical Expert in Training	Kiratli	Tugce	Turkey
Technical Reviewer	Alfieri	Felice	Italy
Technical Reviewer, Technical Expert	Valoroso	Rita	Italy

3 VALIDATION FINDINGS

The findings of the validation related to the project, as described in the PDD version 1.5 of 11/09/2013 and previous versions [/1/](#), are stated in the following sections.

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

3.1 Participation

The project participant is Canres Elektrik Uretim A.S. is a private entity; the project is a unilateral project and hence the host country is the only Party involved in the proposed project activity. Turkey fulfils the requirements to participate in the GS VER, having ratified the Kyoto Protocol on 28/05/2009 and has put in effect on 26/08/2009 [/19/](#). However, Turkey does not have any emission reduction target; hence, it is not listed as an Annex B country of the Kyoto Protocol. The project participant is correctly listed in table A.4 of the PDD and the information is consistent with the contact details provided in Appendix 1 of the PDD [/1/](#).

The proposed project has not directly or indirectly received or benefited from official development assistance on condition that the credits are transferred to the donor country (Turkey) of the assistance. In this regard, RINA checked the ODA declaration form provided by the Canres Elektrik Uretim A.S. signed by the project owner on 07/06/2012, which is presented under Annex 1 of GS Passport [/2/](#).

3.2 Project Design Document and Gold Standard Passport

The PDD for the project activity “Sadilli Wind Farm Project, Turkey”, in “Turkey”, version 1.5 of 11/09/2013 and previous versions [/1/](#) and the Gold Standard Passport [/2/](#) submitted by the Canres Elektrik Uretim A.S. has been the basis for the validation process.

RINA confirms that the above PDD is based on the currently valid PDD template [/18/](#) and is completed in accordance with the applicable guidance document “Guidelines for Completing the Project Design Document Form for CDM Project Activities” [/17/](#) and the Gold Standard Passport is in accordance with the latest version of the Gold Standard Passport template (Annex R to Toolkit version 2.1) [/8/](#).

3.3 Project Design

Purpose and general description of the project activity

The purpose of the project activity is to install wind power plant with a total installed capacity of 33 MWe. The generated electricity will be fed to Turkish National grid via Kesan TM, 154 kV through the Generation License [/22/](#).

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Project location

The project is within boundaries of Çanakkale and Tekirdağ Province of Turkey as mentioned in the PDD /1/. The geographical coordinates, which are presented below, have been crosschecked through the Generation License /23/ and found to be consistent.

Turbine	Latitude (N)	Longitude (E)
T1	490466	4510521
T2	490775	4510830
T3	491255	4511004
T4	491476	4511166
T5	491886	4511331
T6	492186	4511579
T7	492440	4511346
T8	492745	4511282
T9	493078	4511459
T10	493436	4511588
T11	493555	4511809
T12	493586	4511401
T13	493819	4511231
T14	494051	4511035

Scenario existing prior to the implementation of the project activity

The proposed project is a Greenfield project where no other power plant was located at the same site prior to the implementation of the project activity, which is confirmed during the on-site inspection. Scenario prior to the implementation of the project activity, Turkish grid is mainly feed by thermal power.

Technology(ies) employed

The project qualifies as a large-scale CDM project activity. The project is a 33 MWe wind power plant. The project consists of 14 turbines each having 2.75 kW capacities as confirmed through the turbine agreement /25/. Total output of the project will be limited to 33 MWe as per the Generation License /23/. The project is licensed on 15/02/2012 as 33 MW /22/ whereas on 24/05/2012 capacity has been revised as 38.5 MWm / 33 MWe as confirmed through the Generation License /23/. Based on Archeological Findings Report /30/ and according to the generation license /23/ location of the turbine 1 is changed. The turbine characteristics have been confirmed through the turbine generator agreement /25/.

Project implementation

The project activity will generate electricity by utilizing the renewable energy. The electromechanical equipment agreement /25/ has been signed between GE Wind Energy GmbH and Canres Elektrik Uretim A.S. on 28/02/2012. The construction agreement /57/ has been signed between Canres Elektrik Uretim A.S. and Bektas Insaat Taahhut Ta. San. Tic. Ltd. Sti. on 06/08/2012. During on site visit, it has been observed that construction has been started.

Crediting period and estimated Emission Reductions

A renewable crediting period of 7 years has been chosen for the project activity. It is expected that the project activity will generate 112,000 MWh of electricity per year and delivered to the Turkey National grid. The annual average emission reductions resulted from the project is expected to be 67,074 tCO₂e.

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Contribution to sustainable development

The project will reduce electricity import and dependency on fossil fuels. The project will reduce greenhouse gas emissions and air pollutants through use of renewable resources. The project will create job opportunities and support local economy by procuring available services and equipment locally. Renewable energy sector will be promoted and technology and know-how transfer will be supported.

RINA was able to verify all the documented evidence listed above during the validation process and can confirm that data and considerations are complete and accurate. Moreover, RINA confirms that the description of the proposed GS project activity, as contained in the PDD sufficiently covers all relevant elements, is accurate and complete and that it provides the reader with a clear understanding of the nature of the proposed GS project activity.

3.4 GS Criteria – Project Type Eligibility Screen

The project type eligibility is assessed as per the GS Toolkit [/8/](#) which is explained below:

Scale of project activity

The project activity is a large-scale project as the total installed capacity of the project activity exceeds the 15 MW as confirmed through the Generation License [/23/](#), which is in accordance with the GS Requirements [/7/](#).

Host country

The host party of the project activity is Turkey who has ratified the Kyoto Protocol on 28/05/2009 and has put in effect on 26/08/2009 [/19/](#). As Turkey was neither a Party of UNFCCC at the time the Kyoto Protocol was adopted, nor included in the Annex B of the Protocol which defined quantified emissions limitation or reduction commitments for Annex I parties. Hence, Turkey does not have a quantified emission limitation or reduction commitment in the first commitment period over the period of 2008-2012 under the Protocol. This also means that an official approval from the relevant local authorities stating that an equivalent amount of allowances will be retired to back-up the GS VERs issued is not required.

Type of project activity

The purpose of the project activity is to generate electricity from renewable sources (wind) and fed to the Turkish National power grid. The project activity fits into the renewable energy supply category (i.e. generation and delivery of electricity from a renewable wind power resources), as defined in the GS Toolkit version 2.1 of 01/06/2009 [/8/](#).

Greenhouse gases

The greenhouse gas due to project activity is defined as CO₂ which is eligible under Gold Standard.

Official Development Assistance (ODA)

The project activity will not use Official Development Assistance (ODA). The project owner has signed ODA declaration on 07/06/2012 and included in the GS Passport [/2/](#).

Project timeframe

The Project was not announced to be going ahead without the revenues from the sales of carbon credits as explained in the GS Passport [/2/](#).

Other Certification Schemes

The project is not registered under another voluntary carbon crediting scheme.

3.5 GS Criteria - Pre-Feasibility Assessment

As per the GS Toolkit version 2.1 of 01/06/2009 [/8/](#), pre-feasibility assessment is not required for the proposed project activity, as described in the following:

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- The proposed project is not applying for retroactive registration, as the construction of the project validation has not started before the LSC meeting. LSC meeting was held on 20/06/2012 and the construction agreement /25/ has been signed on 06/08/2012.
- The project activity is the installation of wind power plant with a total installed capacity of 33 MWe which pre-feasibility assessment is exempted for wind power plant as per the GS Annexes C to Toolkit version 2.1 of 01/6/2009 /8/.
- The project is not being rejected for registration by the UNFCCC, which can be confirmed by verifying the UNFCCC website.

3.6 Application of Selected Baseline and Monitoring Methodology

Project Activity Eligibility

The project activity is a large-scale project, as the total installed capacity of the project activity does exceed the 15 MW as confirmed through the Generation License /23/, which is in accordance with the GS Requirements /7/.

The project correctly applies the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012 /11/.

The proposed project activity meets the criteria defined in the baseline methodology as it ensures that:

- The project activity is the installation of a new wind power plant at a site where no renewable power plant was operated prior to the implementation of the project. The project is a Greenfield plant as validated through the site visit.
- The installed capacity of the project activity is 33 MWe that is larger than the 15 MW as validated through the Generation License /23/.
- The proposed project activity does not involve switching from fossil fuels to renewable energy sources at the site of project activity as confirmed during the site visit.
- The proposed project activity does not involve combined heat and power (co-generation) systems as confirmed during on-site visit.
- The proposed project activity does not involve addition of renewable energy generation units at an existing renewable power generation facility.
- The proposed project activity does not involve biomass fired power plants.
- The project activity is not retrofit or replacement project. The project is a Greenfield plant as validated through the site visit.

The project activity applies the following methodological tools:

- Methodological Tool “Tool for demonstration and assessment of additionality”, version 06.1.0 of 13/09/2012 /12/
- Methodological Tool “Tool to calculate the emission factor for an electricity system”, version 02.2.1 of 29/09/2011 /13/

and meets the defined criteria as it ensures that:

- Additionality tool is applicable to the project activity since Gold Standard VER project activities, of whatever scale and type, are required to use either UNFCCC-approved or a Gold Standard-approved additionality tool to demonstrate project additionality.
- Baseline tool is applicable to the project activity since the project activity supplies electricity to the national grid.

RINA hereby confirms that the selected baseline and monitoring methodology has been previously approved by the CDM Executive Board/GS Board, and is applicable to the Project, which complies with all the applicability conditions therein and the selected version is valid at the time of submission of the proposed project activity for registration. It is also confirmed that the methodology is correctly applied by comparing it with the actual text of the applicable version of the methodology.

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3.7 Project Boundary and Baseline Identification

3.7.1 Project Boundary

According to the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012 [/11/](#) the project boundary includes the project power plant and all power plants connected physically to the electricity system that the project is connected to.

Emissions sources included in the project boundary are shown in the table below:

	GHGs involved	Description
Baseline emissions	CO ₂	CO ₂ emission from fossil fuel fired power plant that are displaced due to project activity.
Project emissions	NA	Project emissions are neglected since the project activity is a wind power plant in line with the ACM0002 /11/ .
Leakage	NA	The leakage emissions are neglected as per ACM0002 /11/ since energy generating equipment is not transferred from or to another activity as validated equipment agreement /25/ .

Emission sources which are not addressed by the applied methodology and which are expected to contribute more than 1% of the overall expected average annual emissions reduction have not been identified.

By checking the information by the physical site, RINA can confirm that all the emission sources, gases have been included in the project boundary, and the description in the PDD is accurate and complete, and also that the selected sources and gases are justified for the proposed project activity.

3.7.2 Baseline Identification

According to the approved baseline methodology ACM0002 [/12/](#), the baseline scenario is “the installation of a new grid-connected renewable power plant/unit is electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources”. Since the baseline is defined by the approved methodology, no further analysis is required as per the paragraph 115 of the VVS [/10/](#).

The approved baseline methodology “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed GS project activity.

3.8 Additionality

According to the GS Requirements [/7/](#), the additionality of the project has been established applying the “Tool for demonstration and assessment of additionality”, version 06.1.0 of 13/09/2012 [/12/](#).

The above opinion of RINA to the additionality of the proposed project is further explicitly explained in the following steps.

3.8.1 Prior Consideration of the Clean Development Mechanism

Project Starting Date

The starting date of the project activity is 28/02/2012 that is the date of turbine agreement signed between the PP and the equipment supplier [/25/](#). Since the first real action is equipment agreement, it is in line with the definition as per the CDM Glossary of Terms [/15/](#).

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Prior Consideration

Start date of project activity is defined as 28/02/2012, which is the date of turbine agreement [/25/](#). The PP has been requested offers from carbon developers on 16/11/2011 as confirmed through the email [/37/](#). The project owner decided to work with Mavi Consultancy on 29/12/2011 [/38/](#).

The project owner (mother company, Fina Energy) has other wind power plants [/61/](#) and two projects (Duzova WPP and Ziyaret WPP) are registered with the Gold Standard [/62/](#) [/63/](#). The validation of Duzova WPP started in September 2009 and finalized in May 2010 as confirmed through the validation report [/62/](#). The validation of Ziyaret WPP started in February 2010 and finalized in September 2011 as confirmed through the validation report [/63/](#). Therefore, the project owner was aware of carbon finance before the starting date of the project activity, demonstrating prior consideration of carbon credits.

Also, the correspondences with the bank [/71/](#) which is before the starting date of project activity show that carbon revenues were taken into consideration in the Project's financial feasibility studies.

The proposal requests [/37/](#) and the other GS registered projects of project owner [/62/](#) [/63/](#) shows that carbon reduction revenue was seriously considered in the decision to proceed with the project activity.

The following timeline of key milestones was elaborated based on the verifiable evidence collected during the validation process. The information is consistent with the timeline provided in the PDD and all events show a logic sequence, which is in line with the GS/CDM requirements and rules.

	Date	Milestone activities verified
/1/	16/11/2011	Offer Request for Carbon Development /37/
/2/	29/12/2011	Offer Approval with Mavi Consultancy for VER Development /38/
/3/	28/02/2012	Wind Turbine Generator Agreement /25/

3.8.2 Identification of Alternatives

According to the approved baseline methodology ACM0002 [/11/](#), the baseline scenario is "the installation of a new grid-connected renewable power plant/unit is electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources" and since it is prescribed in the approved methodology no further analysis is required as per para 115 of the CDM-VVS [/10/](#). The project proponent has justified the selection of the baseline scenario in line with the applied methodology and the same is deemed reasonable.

3.8.3 Investment Analysis

Choice of Approach

The project uses approved methodology ACM0002, "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" version 13.0.0 [/11/](#). The use of the investment analysis as described in [/12/](#) and further elaborated upon in [/14/](#) is acceptable.

According to "Tool for demonstration and assessment of additionality" [/12/](#), the investment analysis can be carried out through (1) simple cost analysis, (2) investment comparison analysis or (3) benchmark analysis. The project participants have correctly applied the benchmark analysis as the appropriate analysis method and justified their choice in the PDD [/1/](#), noting that there are non-carbon revenues so that the simple cost analysis cannot be used, and that there is no alternative investment, so that the investment comparison analysis cannot be used.

Benchmark Selection

The financial indicator has been selected for the financial analysis is the real pre-tax project IRRR. The benchmark is the real (pre-tax) Weighted Average Cost of Capital. (WACC). The pre-tax WACC has been calculated according to internationally accepted formulas which are presented in the calculation spread sheet [/6/](#) together with the source for the formulas (which could be confirmed), on the basis of the income tax rate, the hurdle rate for the return on equity, and the interest rate for bank loans, as well

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as assumed shares of debt and equity in total financing. The calculated WACC was 8.4% with the following formula:

$$WACC = (E / (E + D)) \times \text{Cost of Equity} + D / (E + D) \times \text{Cost of Debt} \times (1 - CT)$$

$$WACC_{\text{pretax}} = WACC / (1 - CT)$$

Where,

E = Equity

D = Debt

CT = Corporate Tax Rate

While the approach taken is standard and correct, it assumes that the tax benefits from debt financing (deductibility of interest paid from taxable income) will be fully realized, which may not always be the case. To provide the most conservative interpretation, the project participants also calculated a WACC if none of the tax benefits from the financial structure would be realized. That value is calculated as 7.7%.

Discussion of input parameters for the calculation of the pre-tax WACC

The input values for the calculation of the WACC could be validated as follows:

- The required return on equity is 15.00%, based on /59/. It could be confirmed on page 52 of the World Bank document, paragraph number 3 that the equity IRR is a real IRR and not a nominal IRR. The analysis is conducted in real terms. Use of this benchmark has been stimulated by the Gold Standard organization, and is therefore appropriate.
- The income tax rate is 20%. This could be confirmed by reference to the Turkish tax code, see for example /67/ p.7.
- Interest rate is 5.82%. This is calculated from information in the TKB term sheet /34/ and <http://www.euribor-ebf.eu/euribor-org/euribor-rates.html>
- The applied share of debt financing is 80% and the applied share of equity financing is 20%. The equity share of 20% is the minimum share required per the license of the project owner /19/; using these shares leads to the lowest possible WACC and hence the most conservative interpretation of the additionality requirement.

Input Parameters

RINA has validated the input parameters used in the investment analysis and the following steps have been followed to assess the investment analysis:

Assessment of the sources used for input parameters. All input parameters used in the financial analysis are taken from publicly third party sources available /20/ /23/ /26/ /34/ /59/ /67/ /68/ /69/ and can thus considered information provided by independent and recognized source.

RINA compared the input parameters for the financial analysis included in the PDD and in the IRR spreadsheet with the parameters stated in the publicly third party sources and was able to confirm that the values applied are consistent with the values stated in the document mentioned before.

All the data used for the investment analysis were available at the time of the investment decision. The PDD /1/ and the calculation spread sheet /4/ presented the input parameters, as follows:

Parameters	Unit	Value	Source	Validation Assessment and cross checking
Total Installed Power generation capacity	MWe	33.00 (38.5MWm)	/1/ /4/ /23/	The value applied could be confirmed with /23/ which limits the electrical power supply to 33 MW.

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Annual Net Power Generation to be Sold	MWh/yr	112,000	/1/ /4/ /26/	Based on the feasibility study /26/ prepared by an independent organization. The value used is very plausible for a wind power project and implies a load factor of 33%.
Total investment costs	TEUR	44,413	/1/ /4/ /69/	The figure used is based on a value of 1,153.58 EUR/kW, derived from another wind power project in Turkey. This may be compared with the total investment cost of wind power projects in developed countries of 1700-2450 USD/kW, or 1318-1900 EUR/kW as reported in /69/ . The value employed is low, also compared to standard value encountered in Turkish wind power projects
O&M costs	TEUR/yr	1,574	/1/ /4/ /69/	Calculated from another Turkish wind power project. As per the IRR calculation, the unit O&M cost is 10.3 EUR/MWh (13.8 USD/MWh) while according the International Energy Agency /69/ the operation and maintenance costs are estimated at between 13 to 25 USD/MWh for onshore wind power plants. The value used in the financial analysis is within in the range of the estimation published by the International Energy Agency /69/ , thus it can be confirmed the conservativeness of the O&M costs applied.
Royalty (License) fee	EUR/MWh	13.1	/1/ /4/ /20/	Converted from the Turkish Lira amount stated in /20/
Operational Years	Years	25	/1/ /4/	This is equal to the technical lifetime of the investment, and slightly more conservative than what the UNFCCC guidelines, to which the Gold Standard refers, require (20 years).
Salvage value	EUR	0	/4/ /14/	The investment analysis /4/ contains a value "Gain/Loss at the final year". Contrary to what is stated, this value is above zero. This is more conservative that assuming a zero value, although the impact on the project IRR is minor. If the investment horizon in the investment analysis equals the technical lifetime of the project, the salvage value can be assumed to be zero. This is also in line with the

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					UNFCCC guidance in /14/: “Both project IRR and equity IRR calculations shall as a preference reflect the period of expected operation of the underlying project activity (technical lifetime), or if a shorter period is chosen include the fair value of the project activity assets at the end of the assessment period.”
Electricity Price	Selling	EUR/MWh	54.3	/1/ /4/ /68/	The renewable energy regulation /68/ provides for a tariff of 73 USD/MWh for wind power plants (105 USD/MWh). Using the exchange rate of the investment decision date, 1.3442 USD/EUR, this can be converted to an electricity selling price of 54.3 EUR/MWh for wind power.
EUR/USD Exchange Rate		USD/EUR	1.3442	28.02.2012 TCMB Rate	The applied exchange rate could be confirmed on the website http://www.tcmb.gov.tr/
EUR/TL Exchange Rate		TL/EUR	2.3503	28.02.2012 TCMB Rate	The applied exchange rate could be confirmed on the website http://www.tcmb.gov.tr/
Corporate Tax Rate		%	20	/70/	The corporate tax rate applicable in Turkey is 20% as confirmed through the Corporate Tax Law /70/.

Based on the information verified, RINA was able to confirm that the input parameters used in the investment analysis are reasonable and adequately represent the economic situation of the project activity at the time of the investment decision.

Calculation and Conclusion

The IRR calculations were provide in a spreadsheet /4/. The calculation were verified and found to be correct by RINA as well as the assumptions used in the calculation were deemed to be correct. The project IRR without VER revenues is 4.2%, which confirms that the proposed project activity in absence of the VER benefits and compared to the benchmark IRR 8.4% is not financially attractive.

The investment analysis and sensitivity analysis results in the following results:

Scope of Analysis	Equity IRR Calculated	Benchmark
Base Case	4.2%	8.4%

All calculations have been set up correctly.

Sensitivity Analysis

A sensitivity analysis has been carried out for parameters contributing more than 20% revenues and costs, to demonstrate the robustness of the financial analysis. Reasonable variations of $\pm 15\%$ of the total investment costs and operation cost.

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The sensitivity analysis results are as follows:

% Change	Total Investment Costs	Power Price	Operation Costs
-15%	5.7%	1.3%	5.5%
0%	4.2%	4.2%	4.2%
+15%	3.0%	6.7%	2.8%
Benchmark	8.4%	8.4%	8.4%
Switching Value	-34.1%	+26.7%	Less than -100%

Parameter	Changes/variation	Probability of the situation
Total investment costs	+/- 15%	The range provided is wider than standard (and hence more conservative) for this type of projects and conform para 21 of /14/ , and the sensitivity analysis confirms additionality. The switching value (the percentage change equating the real project IRR before taxes to the benchmark of 8.4%) has been calculated, and it has been argued that the likelihood of the switching value being reached is almost zero.
Power price	+/- 15%	The range provided is wider than standard (and hence more conservative) for this type of projects and conform para 21 of /14/ , and the sensitivity analysis confirms additionality. The switching value (the percentage change equating the real project IRR before taxes to the benchmark of 8.4%) has been calculated, and it has been argued that the likelihood of the switching value being reached is almost zero.
Operation and maintenance costs	+/- 15%	The range provided is wider than standard (and hence more conservative) for this type of projects and conform para 21 of /14/ , and the sensitivity analysis confirms additionality. The switching value (the percentage change equating the real project IRR before taxes to the benchmark of 8.4%) has been calculated, and it has been argued that the likelihood of the switching value being reached is almost zero.

The parameters varied, and the degree of variation, are more conservative than the commonly used approach in the investment analysis of CDM projects and hence very suitable to Gold Standard projects. Power generation and power price are not individually varied in the sensitivity analysis, but the results would coincide with the change in power price, which is included in the sensitivity analysis. The project participants conclude that without the revenues from the sale of VERs, the project is not financially attractive. With the added value from the sale of VERs, the project becomes more financially attractive. Hence the project participants correctly conclude that the project faces a significant investment barrier and is additional.

3.8.4 Barrier Analysis

Barrier analysis is not applied as the additionality of the proposed project activity is demonstrated through investment analysis, which is in line with the Methodological Tool "Tool for demonstration and assessment of additionality", version 06.1.0 of 13/09/2012 [/12/](#).

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3.8.5 Common Practice Analysis

According to the methodological tool for the demonstration and assessment of additionality [/12/](#), the common practice analysis shall be conducted applying the following steps:

Step 1: The applicable output range is calculated as +/-50% of the capacity of the project activity in line with the tool. The project comprises an installed capacity of 33 MWe; therefore, the applicable output range is 16.5 MWe to 49.5 MWe.

Step 2: The applicable geographical area for the proposed project covers the entire host country (Turkey) as the default area specified in the guideline. All plants that deliver the same output, within the applicable output range calculated in Step 1, as the proposed project activity and have started commercial operation before the start date of the project are defined as N_{all} . The total number of N_{all} is calculated as 56 in the "Sadilli-BL-v1.3-20130419-NoTaxIRR.xlsx" common practice calculation spreadsheet [/6/](#).

Step 3: The power plants apply technologies different that the technology applied in the proposed project activity are identified as N_{diff} . All wind power plants, except Ares (Alaçati) and Bores (Bozcaada) projects, have benefitted from carbon revenue as confirmed through the GS registry [/64/](#). Ares and Bores projects have different technology in terms of investment climate since the types of these companies are BOT (build-operate-transfer) as confirmed through the Turkish Electrical Energy 10-Year Generation Capacity Projection Report [/65/](#). Thus, N_{diff} is therefore the same as N_{all} .

Step 4: Factor $F = (1 - N_{diff}) / N_{all}$ representing the share of plants using technology similar to the technology used in the proposed project activity in all plants that deliver the same output or capacity as the proposed project activity.

The $N_{all}-N_{diff}$ is calculated as 0, which are not greater than 3. Therefore, the project is not common practice.

3.8.6 Conclusion

RINA can confirm that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality are credible and reliable.

By assessing the evidences presented and cross-checking the information contained in, RINA considers the reasoning for the proposed project additionality demonstration is credible and reasonable i.e. the proposed project has the ability to reduce anthropogenic emissions of greenhouse gases by sources below those that would have occurred in the absence of the registered GS project activity.

3.9 GS Criteria - Sustainability Assessment

The project activity supports the sustainable development by reducing greenhouse gas emissions and other pollutants comparing to baseline scenario and creating job opportunities during the construction and the operation phase.

The safeguarding principles and sustainability development indicator are assessed as explained below.

Based on the review of GS Local Stakeholder Consultation Report Review Feedback of 20/07/2012 [/45/](#), the following comments were identified that shall be evaluated by the DOE.

FAR#1: *The PP shall please promote participation of local women to the Stakeholder Feedback Round and shall please put best efforts to proactively solicit feedbacks from those.*

During on site-visit, local women have been interviewed in the coffee house about the benefits of the project, local employment, and overall effects of the project to the village and no negative feedback were received. Hence, FAR#1 is closed.

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FAR#2: *Considering that the project is fringing the archeological site, the PP shall ensure clear mitigation measure (such as archeologist observer throughout the construction) or provide endorsement letter from the national authority regarding non-need of archeologist prior to the validation for DOE's opinion and check. Validation DOE is requested to check on the status of the site and obtain feedbacks from local authorities and provide opinion on the mitigation measures.*

There is an archeological finding near to the location of Turbine Number 1 as confirmed through the Archeological Findings Report /30/ which is prepared by Tekirdag Governorship Culture and Tourism Directorate. The coordinates of Turbine Number 1 has been changed as confirmed through the approval Generation License /23/. Hence, FAR#2 is closed.

FAR#3: *Validation DOE shall review dust potential related to construction activities of the project as per site visit observation and provide opinion accordingly. If deemed necessary, the PP shall apply necessary measures and integrate relevant monitoring parameter accordingly.*

Dust emission is eliminated by the water-tender as confirmed during on site visit. Also, the local stakeholders have been interviewed about dust emissions and no negative feedback has been received. Hence, FAR#3 is closed.

FAR#4: *The PP is requested to consider promotion of replanting activities in the vicinity of the project by the local authority or the project owner and ensure erosion control accordingly if needed.*

It has been seen during on site visit that the area of the project is covered with sandstone. Also, Preliminary Report for Geotechnical Assessment /50/ is provided to the DOE. It is explained that landslide, living, swelling, blistering ground instability is not expected for the turbine foundations. Hence, FAR#4 is closed.

FAR#5: *The impacts stated in the Pre-EIA with given measures shall be addressed by the PP and integrated into the SD monitoring plan of the GS Passport. The responsive actions shall be validated by DOE during validation against the Pre-EIA report.*

According to the interviews with PP,

- According to calculations in the preliminary EIA report /28/ noise level will be under legal limit noise emission level.
- The PP has mentioned that closed septic tank is used at the project site for waste water and it is disposed regularly by vacuum. The invoice record for wastewater disposal /54/ is provided to DOE.
- According to the internal waste disposal protocol /53/ of the Project owner, the waste oil is regularly transferred by the authorized services with convenient equipment and it is not stored temporarily at the project site.
- Waste batteries will send to Portable Battery Manufacturers and Importers Association (TAP).

Hence, FAR#5 is closed.

FAR#6: *DOE is requested to check the log book during the validation.*

During on site-visit, the logbook is checked no negative feedback has been received. Also, grievance mechanism and logbook which is available at the coffee house has been explained to the villagers. Hence, FAR#6 is closed.

3.9.1 Do No Harm Assessment

The risk of the project could have harmful impacts have been assessed under “Do no harm assessment” section in GS Passport /2/. The “Do no harm assessment” is based on the UNDP (United Nations Development Program) safeguarding principles. All the safeguarding principles are assessed in terms of risk, and the explanations and references are provided for each principle to justify the evaluation of the degree of risk.

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Human Rights

All safeguarding principles listed under “Human Rights” are scored low risk. The host country has ratified the European Convention on Human Rights. The project is located on public land; therefore the project does not cause any resettlement as confirmed during on site visit via interviews with stakeholders. The project activity does not have any impact on the cultural and archaeological heritage as mentioned in the Preliminary EIA Report [/30/](#). However, according to the Archaeological Findings Reports [/30/](#) Turbine 1 coordinates are in an archaeological area and as per Generation License [/23/](#) its coordinates have been changed.

Labour Standards

All safeguarding principles listed under “Labour Standards” are scored low risk. The project activity complies with the ILO Convention [/27/](#).

Environmental Protection

All safeguarding principles listed under “Environmental Protection” is scored low risk. All the conducted assessments during the Preliminary EIA Report [/28/](#) shows that from this project activity there is no significant negative influence into environment and social area. The every kind of waste will be disposal as per the related regulation of Environmental Law. The project activity is not located in an area, which is legally protected, officially proposed for protection, identified by authoritative sources for their high conservation value, or recognized as protected by traditional local communities as confirmed during the site visit. The project activity is not located near to worldwide important bird area.

Anti-Corruption

The anti-corruption safeguarding principles is scored low. The project does not involve and is not in complicit in corruption. Turkey is a party to United Nation Convention against Corruption [/27/](#).

3.9.2 Sustainable Development Matrix

The GS indicators of sustainable development are defined as per the Annex I of the GS Toolkit [/8/](#). The indicators are connected to the localized Millennium Development Goals as per the Annex I of the GS Toolkit [/8/](#). The baseline situation and the future target are described for each parameter. The justification for choice of the parameters was provided in the GS Passport. The justification is based on objective sources such as “Preliminary EIA Report” [/28/](#).

The defined the GS indicators in the SD matrix which are in line with the Annex I of the GS Toolkit [/8/](#) are given below including their scores.

Air Quality (+)

Parameter: SO₂ and NO_x emissions

In parallel to the electricity generation SO₂ and NO_x emissions reduction will be realized since the grid is mainly fed by the fossil fuels. The effect of the project on the air quality is scored positive and will be monitored continuously.

Water Quality and Quantity (+)

Parameter: Disposal of the waste water and the cooling water

The power generated by the Project will result in indirect reduction of cooling water discharged by thermal power plant and the wastewater generated on site will be disposed of properly. The parameter is scored positive and will be monitored continuously.

Soil condition (0)

Parameter: Erosion risk, earthquake risk and solid waste disposal

According to the Preliminary Report for Geotechnical Assessment [/50/](#) there is no erosion risk in the project area. Also, the quality, slope and curvature of the newly constructed roads will not present significant erosion risk. The foundations of the turbine towers are constructed appropriately to mitigate

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earthquake risk. Solid waste on site from operations (household waste and waste oil) will be disposed of properly according to legal requirements as confirmed through the waste disposal protocol [/53/](#). The parameter is scored neutral and will be monitored continuously.

Other Pollutants (0)

Parameter: Noise pollution

Project will ensure that its noise emissions will be within thresholds at the nearest residential, commercial or industrial sites; parameter is scored neutral and will be monitored continuously by interviews with the local stakeholders.

Biodiversity (0)

Parameter: Impact on bird migration routes

The Project will not involve any process during operation that might have any significant impact on nearby habitats. The Project does not represent a threat to birds as confirmed through the PIF [/28/](#). The parameter is scored neutral and will be monitored continuously.

Quality of Employment (+)

Parameter: Fair labour practices, health and safety precautions

The Project will employ local people with fair labour practices without any kind of discrimination. The quality of staff will be increased by proper work safety and health precautions, trainings. The parameter is scored positive and will be monitored continuously.

Livelihood of the Poor (0)

Parameter: Fair land compensation measures and Livestock feeding

The Project will employ local people with fair labour practices without any kind of discrimination. This parameter is monitored continuously by checking compensation, social security, proper work safety and health precautions; trainings. The parameter is scored neutral and will be monitored continuously.

Access to Affordable and Clean Energy Services (+)

Parameter: Clean Energy

Avoiding baseline fuel consumption on a fuel type basis is monitored with multiplication of fuel intensities with actual net power generation data and net electricity generation data will be reported monthly. The parameter is scored positive and will be monitored continuously.

Human and institutional capacity (0)

Project will have indirect impact on human and institutional capacity due to trainings of staff. The parameter is scored neutral and will not be monitored.

Quantitative Employment and Income Generation (+)

Parameter: Jobs created

The project will create new employments around the project area during the operation and construction of the project. The parameter is scored positive since the income generation will increase and related parameter will be monitored.

Balance of Payments and Investment (+)

Parameter: Saving on natural gas imports

Turkey is mainly dependent on import coal and natural gas for electricity generation. Project will indirectly reduce fuel imports and hence contribute to balance of payments. The parameter is scored positive and will be monitored continuously.

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Technology Transfer and Technological Self-reliance (0)

Trainings will be given to Project personnel, directly and indirectly improving skills of the staff, though at a limited extent, and supporting. The parameter is scored neutral and will not be monitored.

All of the indicators have been scored positive or neutral in comparison with the baseline situation. None of the indicators has been scored negative. The project contributes positive to “environment” and “economic and social development”.

It is RINA's opinion that the project complies with the sustainability assessment requirements defined in the GS Toolkit version 2.1 of 01/06/2009 [/8/](#).

3.10 Monitoring Plan

The approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012 [/11/](#) has been applied.

The monitoring plan is in accordance with the monitoring methodology; the monitoring plan will give opportunity for real measurement of achieved emission reductions.

RINA has checked all the parameters presented in the monitoring plan against the requirements of the methodology; no deviations relevant to the project activity have been found in the plan.

RINA confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design, and the means of implementation of the monitoring plan are sufficient to ensure the emission reductions achieved by/resulting from the proposed GS project activity can be reported ex post and verified.

Parameters Determined Ex-ante

The ex-ante parameters that are mentioned in the methodology are included in the PDD and are provided in compliance with the methodology:

	Data/parameter	Unit	Value applied	Assessment
/1/	Operating Margin of Turkey National Grid (OM)	tCO ₂ e/MWh	0.654	The data used to determine the OM emission factor of the grid is obtained from “Electricity Generation & Transmission Statistics of Turkey, 2010” /65/ , which is published by TEIAS. The validation team has confirmed that this is the most updated data at the time for submission for validation, which is considered as appropriate. The emission factors of fuels used in the calculations are based on IPCC default values at the lower limit of uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter 1 of Volume 2 of the 2006 IPCC Guidelines on National GHG Inventories /39/ , which is in line with the methodological tool, and considered as appropriate.
/2/	Build Margin of Turkey National Grid (BM)	tCO ₂ e/MWh	0.434	The data used to determine the OM emission factor of the grid is obtained from “Turkish Electrical Energy 10-Year Generation Capacity Projection (2011-2020)” /43/ , which is published by TEIAS. The validation team has confirmed that this is the most updated data at the time for submission for validation, which is considered as appropriate.

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				The net energy conversion efficiency of power unit are taken from Annex 1 of the “Tool to calculate the emission factor for an electricity system” which is deemed reasonable. The emission factors of fuels used in the calculations are based on IPCC default values at the lower limit of uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter 1 of Volume 2 of the 2006 IPCC Guidelines on National GHG Inventories /39/, which is in line with the methodological tool, and considered as appropriate.
/3/	Combined Margin of Turkey National Grid (CM)	tCO ₂ e/MWh	0.599	The emission factor is calculated as a combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the tool /13/.

Parameters Monitored Ex-post

The ex-post parameters that are mentioned in the methodology are included in the PDD and are provided in compliance with the methodology, and they will be monitored during the crediting period:

	Parameter	Description/Assessment
/1/	EG _{facility,y} (MWh/year)	Net electricity supplied to the grid by the Project activity in year y The quantity of electricity supplied by the project plant/unit to the grid and the quantity of electricity delivered to the project plant/unit from the grid will be measured. Net generation will be calculated via subtracting energy delivered by the project activity to the grid for internal consumption from electricity fed to the grid. The electricity generation of the plant will be crosschecked with PMUM records that are the basis of sold electricity. Net electricity generation will be measured by two meters. The meters will comply with EMRA (Energy Market Regulatory Authority) regulation /41/. Since the meters have not been sold yet, the accuracy class is not defined. However, the accuracy class of the meters will be 0.2s or 0.5s depending on the capacity of circuit as per the “Communiqué for Measurement Devices used in the Electricity Market” /40/ as explained in the PDD /1/. The maintenance and calibration of meters are under TEIAS responsibility. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration.

Sustainability Monitoring Plan

	Parameter	Description/Assessment
/1/	Sulphur oxide and Nitrogen oxide emissions prevented	The reductions of SO₂ and NO_x emissions are monitored By measurement of the net electricity generation and multiplication with the baseline ex-ante SO₂ and NO_x intensity of the Turkish grid. Electricity generation data will be monitored monthly. SO₂ and NO_x intensity data will be used ex-ante.
/2/	Cooling water discharge prevented	Discharged cooling water will be reduced. The net electricity generation of the Project will be multiplied with the cooling water

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	and Waste water disposal.	discharge intensity. Electricity generation data will be monitored monthly. Cooling water discharge intensity will be used ex-ante. Wastewater will be stored in a septic tank on site and disposed of in accordance with regulations.
/3/	Erosion risk control at new roads, Earthquake risk and Solid waste	The erosion at the newly constructed roads will be minimized by limiting the slope and the curvature of the roads and by ensuring high road strength and stability. All construction codes are maintained and necessary construction permits are obtained. The construction quality ensures that the Project is sufficiently strong for earthquake risk. Solid waste from daily operations will be disposed properly according to legal requirements. The parameters are monitored continuously during site visits and checking waste disposal records.
/4/	Noise audible at the nearest settlements	The project may result in noise emissions. This parameter is monitored during site visits and interviewing with the stakeholders.
/5/	Impact on bird migration routes	Impact on bird migration routes is monitored continuously and it is monitored by the interviews with the stakeholders.
/6/	Fair labour practices, health and safety precautions	The Project will employ local people with fair labour practices without any kind of discrimination. This parameter is monitored continuously by checking compensation, social security, proper work safety and health precautions, trainings.
/7/	Land acquisition and Livestock feeding	Percentage of completion of acquisitions is monitored continuously by interviewing to check whether the process is carried out properly according to legal requirements and that land owners are compensated fairly. For livestock, there is no access limitation at the project site. It is monitored through the interviews with the stakeholders continuously.
/8/	Clean energy	Avoiding baseline fuel consumption on a fuel type basis is monitored with multiplication of fuel intensities with actual net power generation data and net electricity generation data will be reported monthly.
/9/	Jobs created	The Project aims to employ 20 people during operation. This parameter is monitored continuously by Social security records of all the employees.
/10/	Savings on natural gas imports	Most of the natural gas consumed in the host country is imported, therefore a reduction of natural gas consumption results in an improvement of trade balance. This parameter is monitored continuously by the project owner.

Management System and Quality Assurance

The electricity generation and consumption is measured in line with the TEIAS rules and requirements /40/. The generated electricity fed to grid will be measured by two meters, which will be sealed by TEIAS. Two meters will be installed, the main meter is used for monitoring, and the secondary meter is used for quality control and back-up purposes.

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 a password to access this data on the web site. As indicated in the PDD /1/, the monitored data will be kept for two years after the end of the crediting period or the last issuance of VERs in line with the methodology /11/.

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3.11 Estimation of GHG Emissions

The emission reduction ER_y by the proposed project activity during the crediting period is the difference between baseline emissions (BE_y), project emission (PE_y).

Baseline Emissions

The baseline emissions (BE_y in tCO₂e) are the product of the baseline emission factor ($EF_{grid,CM,y}$ in tCO₂e) times the net electricity supplied by the project activity to the grid ($EG_{facility,y}$ in MWh). The baseline emission factor for the project activity is determined ex-ante as a combined margin (CM) consisting of the combination of operating margin (OM) and build margin (BM) according the methodological “Tool to calculate the emission factor for an electricity system” /13/.

The OM is calculated to be tCO₂e/MWh 0.654 and the BM is calculated to be tCO₂e/MWh 0.434. The combined grid emission factor of the grid is determined ex-ante for the seven years crediting period and it has been calculated as weighted average ($w_{OM} = 0.75$ and $w_{BM} = 0.25$) of the operating margin emission factor and the build margin emission factor. The combined margin emission factor is calculated as 0.599 tCO₂e/MWh, and the net electricity supplied by the project activity to the grid is estimated to be 112,000 MWh/year /26/.

The annual baseline emissions generated by the project activity is calculated to be 67,074 tCO₂e/year.

Project Emissions

Project emissions are neglected since the project activity is a wind power plant in line with the ACM0002 /11/.

Leakage

The leakage emissions are neglected as per ACM0002 /11/ since energy generating equipment is not transferred from or to another activity as validated equipment agreement /25/.

Emission Reductions

The emission reductions (ER_y) are calculated as the following formula:

$$ER_y = BE_y - PE_y - LE_y$$

$$ER_y = BE_y$$

$$= 67,074 \text{ tCO}_2\text{e/year}$$

The annual emission reductions generated by the project activity is calculated to be 67,074 tCO₂e/year over the selected seven years renewable crediting period.

The estimation of the emission reductions can be replicated using the data and parameter values provided in the PDD /1/ and supporting files /4/. The data sources mentioned have been verified by RINA and confirms that the GHG emissions reduction calculation is complete and transparent, and the data accuracy has been verified.

3.12 Environmental Impacts

The project activity is environmentally licensed by the competent authority. Preliminary EIA Report of September 2011 /28/ was prepared and submitted to the “Canakkale Governorship Environment and Forestry Directorate” in line with the domestic laws and regulations in Turkey.

“Canakkale Governorship Environment and Forestry Directorate” have issued a Certificate of EIA Exemption dated 26/01/2012 /29/ based on Preliminary EIA Report for 38.5 MWm installed capacity. After project design is changed, project owner applied based on 14 turbines each having 2.75 kW capacities and “Canakkale Governorship Environment and Forestry Directorate” have issued a Certificate of EIA Exemption dated 03/08/2012 /49/. Also, Environmental and Social Impact Assessment Report /48/ is prepared by a third party for the project activity.

The environmental impact of the project activity is evaluated in the GS Passport /2/ and LSC Report /3/.

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3.13 Local Stakeholder Consultation

The local stakeholder consultation meeting was held on 20/06/2012 in line with the GS Requirements [/7/](#) [/8/](#) as confirmed through the GS Passport and LSC report and via interviews during the site visit. The LSC meeting was held prior to the start date of construction or implementation of the project activity.

The stakeholders were invited to LSC meeting by e-mail, fax and post. The meeting was also announced through local and national newspaper on 06/06/2012 as stated in the LSC Report [/3/](#). The local people, local authorities, local non-governmental organizations, Ministry of Environment and Urbanization, GS Local Representative, NGO supporters of the GS and local represent of GS are invited to the local stakeholder meeting in line with the GS Toolkit [/8/](#). Locals were identified considering settlements impacted by the project. Village heads of all neighboring settlements have been contacted initially. The stakeholder comments received have been taken account as explained in the LSC Report [/3/](#). No negative comments have been received.

The stakeholder feedback round was held between 24/12/2012 and 24/02/2013. People could access to the documentation or information from the consulting company as hard copy, e-mail or fax info@maviconsultants.com.

The stakeholders, head of village and participants were invited to the Stakeholder Feedback Round via e-mails. International offices of Helio International, Mercy Corps, REEP and local representative of GS also included in the feedback round via email sent on 24/12/2012. During the Stakeholder Feedback Round, no comment was received from stakeholders.

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4 VALIDATION OPINION

RINA Services Spa (RINA) has performed validation of the project activity “Sadilli Wind Farm Project, Turkey” in Turkey, with regard to the relevant requirements for GS VER activities.

The review of the project design document and the subsequent follow-up interviews have provided RINA with sufficient evidence to determine the fulfilment of the stated criteria.

The project correctly applies the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012.

By generating renewable energy from wind power plant the project results in reduction of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the “Sadilli Wind Farm Project, Turkey” are estimated to be on average 67,074 tCO_{2e} per year over the selected 7 years renewable crediting period. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

The monitoring plan provides for the monitoring of the project's emission reductions and of the sustainable development indicators. The monitoring arrangements described in the monitoring plan are feasible within the project design and it is RINA's opinion that the project participants are able to implement the monitoring plan.

In conclusion, it is RINA's opinion that the project activity “Sadilli Wind Farm Project, Turkey” in Turkey, as described in the PDD version 1.5 of 11/09/2013, Gold Standard Passport version 1.5 of 15/08/2013 meets all relevant UNFCCC requirements for the GS VER and all relevant host Party criteria and correctly applies the baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 13.0.0 of 11/05/2012.

APPENDIX A

GOLD STANDARD VALIDATION PROTOCOL

TABLE 1 REQUIREMENTS CHECKLIST

Checklist Question		Reference	MoV ¹	Comments	Conclusion
A Description of Project Activity					
A.1 Title of the project activity					
A.1.1.	Does the used project title clearly enable the reader to identify the unique GS activity? Is there an indication of a revision number and the date of the revision?	/1/ /2/	DR, CC	The title of the project activity is defined as “Sadilli Wind Farm Project, Turkey” in the PDD version 1.1 of 24/09/2012 /1/ which is in line with the GS Passport /2/ . The title is same in the GS Registry which is enable the reader to identify the unique GS activity. The version and completion date of report are available at cover page of PDD version 1.1 of 24/09/2012 /1/ .	OK
A.1.2	Does the project comply with the applicable requirements for completing the PDDs (latest version available)?	/1/ /17/ /18/	DR, CC	“Clean Development Mechanism Project Design Document Form (CDM-PDD), Version 03” is applied. However a new version of PDD template /17/ under VVS is available. Therefore, PDD version 1.1 /1/ does not comply with the latest version of the “Guidelines for Completing the Project Design Document Form” /18/ .	CAR-1 OK
A.1.3	Does the PDD comply with the template available (latest version)?	/1/ /17/	DR, CC	“Clean Development Mechanism Project Design Document Form (CDM-PDD), Version 03” is applied. However, a new version of PDD template /17/ under VVS is available which shall be used.	CAR-1 OK
A.2 Description of the proposed project activity					
A.2.1	Does the PDD contain an accurate description of the project activity and provide the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation? How was the design of the project assessed?	/1/ /22/ /23/ /25/ /26/	DR, CC, I	The project activity consists of 14 wind turbines each having 2,750 kW capacities as confirmed through the electromechanical agreement /25/ . The total installed capacity is 38.5 MWm and it is limited to 33 MWe as per the Generation License amendment letter /23/ . The generated electricity will be fed to grid at Kesan TM 154 kV as per the Generation License /22/ . The expected annual electricity generation is defined as 108,640 MWh in the PDD version 1.1 /1/ which refers to FSR /26/ . The annual electricity generation is 112,000 MWh at Probability of exceedance P90 in the FSR /26/ . Please	CAR-2 OK

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

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				clarify how the expected annual electricity generation and plant load factor is defined. The hub height is defined as 100 m in the PDD version 1.1 /1/; however it is given as 85 m in both agreement /25/ and FSR /26/. Technical specifications of turbines given at Table 3 of the PDD could not be justified. Also a brief description of how the project activity contributes to sustainable development is not mentioned in the PDD.	
A.2.2	Does the project activity involve alteration of existing installations? If yes, have the differences between pre-project and post-project activity been clearly described in the PDD?	/1/	DR, I	The project activity is a Greenfield project, which does not involve any alteration of existing installation as confirmed during the site visit.	OK
A.2.3	Is all information provided consistent and in compliance with the actual situation or planning?	/1/ /25/	DR, CC	The PDD is consistent and in compliance with the planning situation. As per the PDD version 1.1 /1/, the project consists of 14 wind turbines as confirmed through the electromechanical equipment agreement /25/.	OK
A.2.8	Have the results of the sustainable development matrix been presented in the PDD?	/1/ /2/	DR	The results of the sustainable development matrix have been presented in the GS Passport /2/.	OK
A.2.9	To which GS category(ies) does the project activity belong to? Is the category correctly identified and indicated?	/1/ /2/ /7/ /8/	DR	The project activity is a large-scale project as the total installed capacity of the project activity is exceed the 15 MW which is in accordance with the GS Requirements /7/. The project activity is a GS VER project as indicated in the GS Passport /2/. The proposed project activity is considered as a Renewable Energy Project. The project activity fits into the renewable energy supply category, as defined in the GS Toolkit version 2.1 of 01/06/2009 /8/. The project activity is to install a wind power plant to generate electricity and feed to the Turkish National power grid, the project fits into the renewable energy supply category (i.e. generation and delivery of electricity from a renewable hydro power resource).	OK
A.2.10	In case of hydro projects, do the items provided in Table C-2 of the GS Toolkit Annex C have been discussed?	/1/ /8/	DR	The project is a wind power plant; hence, Table C.2 is not applicable as per the GS Toolkit /8/.	OK
A.3 Project participants					
A.3.1	Have the Parties and project participants participating in the project been listed in tabular form in Section A.3	/1/	DR	The project participant has been listed in tabular form in Section A.3 and is consistent with the information detailed	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
	and are they consistent with the information detailed in Annex 1 of the PDD?			in Appendix 1 of the PDD version 1.1 /1/.	
A.3.5	Have all private/public project participants been authorized by a Party to the Kyoto Protocol?	/1/	DR	As the proposed project activity is a GS VER project, the validation of participation requirement for CDM/JI is not required.	OK
A.4 Technical description of the project					
A.4.1	Does the information provided on the location of the project activity allow for a clear identification of the site(s)? Are the latitude and longitude of the site indicated (decimal points)?	/1/ /23/	DR, CC	As confirmed during on site visit, the project is located within boundaries of Çanakkale and Tekirdağ Province of Turkey. However, the location of the project activity is given as Çanakkale Province, Gelibolu. Please clarify. The latitude and longitude of the wind turbines are presented clearly in the PDD /1/ which is in line with the amendment Generation License /23/. However, it has been found out during the on-site visit that, the coordinate of Turbine no.1 has been changed due to archaeological findings. Please provide the updated Generation License and revise PDD if necessary.	~~CR-1~~ OK
A.4.2	Is the category(ies) of the project activity correctly identified?	/1/	DR	The category of the project activity is identified correctly in the PDD version 1.1 /1/. The project activity is a wind power plant and considered as a Renewable Energy Project. The sectoral scope is "1 Energy Industries (Renewable/non-renewable sources)" as defined in the PDD.	OK
A.4.3	Does the project design engineering reflect current good practices? Would the technology result in a significantly better performance than any commonly used technologies in the host Country? Is any transfer of technology from any Annex I Party involved?	/1/ /25/	DR, CC	The project design reflects the current good practice. The electromechanical equipment agreement /25/ has been signed with GE Wind Energy GmbH, which is German company. The project activity is a voluntary emission reduction project, which is developed under Gold Standard; hence, the transfer of technology from any Annex I Party is not applicable.	OK
A.4.4	What is the expected operational lifetime of the project activity? Is it reasonable?	/1/ /22/ /31/	DR, CC	The expected operational lifetime of the project activity is defined as 49 years in line with the Generation License /22/. Also, the technical lifetime of the turbines is defined as 25 years as per the "Tool to determine the remaining lifetime of equipment" /31/.	OK
A.5 Public funding					

Checklist Question		Reference	MoV ¹	Comments	Conclusion						
A.5.1	Does the information on public funding provided conform to the actual situation or planning as presented by the PPs?	/1/ /2/	DR	The project activity is not used public funding for the financing of the project as confirmed via interviews. Also, the PP has signed ODA declaration which is given under Annex 1 of the GS Passport /2/ .	OK						
A.5.2	If public funding from Parties included in Annex I is used for the project activity, have these Parties provided an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of these Parties?	/1/	DR, CC	The project activity is a voluntary emission reduction project, which is developed under GS; hence, the transfer of technology from any Annex I Party is not applicable.	OK						
A.5.3	Is the ODA Declaration available and submitted to the GS Board as per the Annex D of the GS Toolkit?	/1/ /2/ /8/	DR	The ODA Declaration is signed by PP and submitted to the GS Board as per the Annex D of the GS Toolkit /8/ . ODA declaration is also available under Annex 1 of the GS Passport /2/ .	OK						
B. Application of a baseline and monitoring methodology											
B.1 Methodology applied											
B.1.1	Does the project activity apply an approved methodology and the correct version thereof?	/1/ /11/	DR	The proposed project activity applies “ACM0002 Consolidated baseline methodology for grid-connected electricity generation from renewable sources, version 13.0.0 of 11/05/2012” /11/ as indicated in the PDD version 1.1 /1/ . The applied methodology is approved by CDM and the applied version is the latest version at the time of PDD submission.	OK						
B.1.2	Is there any specific guidance, including the methodological tools provided by EB and has these guidance been applied?	/1/ /12/ /13/	DR	The following tools are applied: • Tool for the demonstration and assessment of additionality, version 06.0.0 /12/ • Tool to calculate the emission factor for an electricity system, version 02.2.1 /13/ However, it is not the latest version for “Tool for the demonstration and assessment of additionality”. Please update the version of the tool.	~~CR-14~~ OK						
B.1.3	How was it validated that the project activity complies with the applicability criteria?	/1/ /11/	DR, CC	ACM0002 Version 13.0.0 <table><tr><th>Applicability criteria</th><th>Project activity</th><th>Criteria are met?</th></tr><tr><td>The project activity is the</td><td>The project</td><td>OK</td></tr></table>	Applicability criteria	Project activity	Criteria are met?	The project activity is the	The project	OK	~~CR-3~~ OK
Applicability criteria	Project activity	Criteria are met?									
The project activity is the	The project	OK									

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit activity is the installation of wind power plant as explained under section B.2 of the PDD version 1.1 /1/.	
			In the case of capacity additions, retrofits or replacements (except for wind, solar, wave or tidal power capacity addition projects which use Option 2: on page 10 to calculate the parameter $EG_{PJ,y}$): the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.	OK
			In case of hydro power plants, one of the following conditions must apply: • The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of reservoirs; or • The project activity is implemented in an existing	OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			single or multiple reservoirs, where the volume of any of reservoirs is increased and the power density of each reservoir, as per the definitions given in the project emissions section, is greater than 4 W/m²; or The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per the definitions given in the project emissions section, is greater than 4 W/m²	
			In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4 W/m² all the following conditions must apply: - The power density calculated for the entire project activity using equation 5 is greater than 4 W/m²; - Multiple reservoirs and hydro power plants located at the same river and where are designed together to function as an integrated project that collectively constitute the generation capacity of the combined power plant; - Water flow between multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity; - Total installed capacity of the power units, which are driven	The project activity is the installation of wind power plant. OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			using water from the reservoirs with power density lower than 4 W/m², is lower than 15 MW; • Total installed capacity of the power units, which are driven using water from reservoirs with power density lower than 4 W/m², is less than 10% of the total installed capacity of the project activity from multiple reservoirs.	
			The methodology is not applicable to the following: • Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; • Biomass fired power plants; • A hydro power plant that results in the creation of a new single reservoir or in the increase in an existing single reservoir where the power density of the power plant is less than 4 W/m²	OK
			The applicability conditions included in the tools referred in applied methodology.	CAR 3

Checklist Question		Reference	MoV ¹	Comments	Conclusion
B.1.4	Is the selected baseline one of the baseline(s) described in the methodology and this hence confirms the applicability of the methodology?	/1/ /11/	DR	The baseline scenario for the project activity involves the installation of a new grid-connected renewable power plant is already defined in the approved methodology ACM0002 /11/ . The baseline scenario is defined as “Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system” in the ACM0002, which is in line with the PDD version 1.1 /1/ .	OK
B.2 Project boundary					
B.2.1	Is the project boundary are clearly defined and in accordance with the applied methodology?	/1/ /11/	DR	The project boundary clearly defined in accordance with the applied methodology, ACM0002 /11/ .	OK
B.2.2	What are the project's system boundaries (components and facilities used to mitigate GHGs)?	/1/ /22/ /25/	DR, CC	The project system boundary consists of 14 wind turbines, switchyard, which will be connected physically to the grid. The project boundary in of the project detailed in the PDD version 1.1 /1/ is confirmed through the equipment agreement /25/ and generation license /22/ .	OK
B.2.3	Which sources are identified for the project? Does the identified project boundary cover all possible sources linked to the project activity?	/1/ /11/	DR	Project boundary is identified the PDD version 1.1 /1/ for baseline and project activity. The source of baseline emission CO ₂ emissions are included in baseline calculation since fossil fuels fired for electricity generation. CH ₄ and N ₂ O emissions are neglected regarding to the methodology. Project emissions are neglected regarding to the methodology /11/ since the project activity is a wind power plant.	OK
B.2.4	In case of grid connected electricity project: is the relevant grid correctly identified in accordance with the latest version of tool to calculate emission factor of electricity system and the underlying methodology?	/1/ /12/	DR	The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available in the PDD version 1.1 /1/ , in accordance with the “Tool to calculate emission factor of electricity system” /12/ .	OK
B.2.5	Does the project involve other emissions sources not foreseen by the methodologies that may question the applicability of the methodology? Do these sources contribute by more than 1% to the estimated emission	/1/ /11/	DR	The PDD version 1.1 /1/ does not mention whether the project involve other emission sources not foreseen by the methodology, which contribute by more than 1% (e.g. back	CR-2 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
	reductions of the project?			up diesel generators).	
B.3 Identification of the Baseline Scenario					
B.3.1	Which baseline scenarios have been identified? Is the list of the baseline scenarios complete? Does the PDD follow the steps to determine the baseline scenario required by the methodology/tool?	/1/ /11/	DR	The baseline scenario for the project activity is already defined in the applied methodology.	OK
B.3.2	How have the other baseline scenarios been eliminated in order to determine the baseline?	/1/ /11/	DR	The baseline scenario for the project activity is already defined in the applied methodology.	OK
B.3.3	What is the baseline scenario? Is the determination of the baseline scenario in accordance with the guidance in the methodology?	/1/ /11/	DR	The baseline scenario for the project activity is already defined in the applied methodology.	OK
B.3.4	Has the baseline scenario been determined using conservative assumptions? Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies (E+ / E-), macro-economic trends and political aspirations?	/1/ /11/	DR	The baseline scenario for the project activity is already defined in the applied methodology.	OK
B.4 Additionality					
B.4.1	What tool does the project use to assess additionality? Is this in line with the methodology?	/1/ /11/	DR	Tool for demonstration and assessment of additionality version 06.0.0 /11/ is applied in line with the methodology. Please refer to Section B.1.2 of this protocol.	~~CR-14~~ OK
B.4.2	What is the project additionality mainly based on?	/1/	DR	The project additionality is mainly based on investment analysis.	OK
B.4.3 Prior consideration					
B.4.3.1	What is the starting date of the proposed project activity? Is it in accordance with the CDM Glossary of Terms?	/1/ /15/ /25/	DR, CC, I	The starting date of the project activity is defined as 28/02/2012 in the PDD version 1.1 /1/ which is the date of the electro mechanical agreement /25/ . The project starting date is in line with the glossary /15/ since electro mechanical agreement is the first real action. However, in Prior Consideration of Carbon Finance, it is mentioned that the starting date of the project activity is 2. Please correct the information.	~~CR-15~~ OK
B.4.3.2	Is the project activity a new project activity or existing project?	/1/	DR, I	The project activity is a new project activity as confirmed during the site visit.	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
B.4.3.3	Does the timeline of the project confirm that continuous actions in parallel with the implementation were taken to secure project status? Please specify the gap between the documented evidences.	/1/	DR	The timeline of the project does not confirm that continuous actions in parallel with the implementation were taken to secure project status. It shall be demonstrated by the PP that carbon reduction revenue was seriously considered in the decision to proceed with the project activity. Also, some of the dates given at Table 12 of the PDD version 1.1 /1/ could not be justified. Please justify the dates by providing objective evidence.	~~CAR-4~~ OK
B.4.4 Investment analysis					
B.4.4.1	What is the analysis method used to determine whether the proposed project activity is not (a) the most economically or financially attractive; or (b) economically or financially feasible, without the revenue from the sale of certified emission reductions?	/1/	DR	Through a direct review of the PDD version 1.1 of 24/09/2012 /1/, it could be verified that the benchmark analysis method is used to conduct the investment analysis. The choice of this analysis method is properly justified.	OK
B.4.4.2	What the financial indicator is used?	/1/	DR	Through a direct review of the PDD /1/, it could be verified that the financial indicator used is the pre-tax project IRR. The choice of this parameter is justified and is a frequently used financial indicator for investment analysis. However, the PDD does not clearly state whether this is the nominal or real project IRR.	~~CR-3~~ OK
B.4.4.3	If a benchmark is used, is it ensured that it is selected in accordance with the requirements of the EB guidelines and it represents standard returns in the market? Is the benchmark suitable for the type of financial indicator presented? Is it ensured the any risk premiums applied in determining the benchmark reflect the risks associated with the project type or activity?	/1/ /14/	DR	Through a direct review of the PDD version 1.1 of 24/09/2012 /1/, it could be verified that the chosen benchmark is the pre-tax Weighted Average Cost of Capital (WACC). The WACC is accepted by the EB guidelines, as evidenced in paragraphs 12-18 of the Guidelines on the Assessment of Investment Analysis version 5 /14/, which discuss the use of (among others) the WACC. However, the WACC has not been calculated taking account of paragraph 17 of the Guidelines on the Assessment of Investment Analysis.	~~CAR-5~~ OK
B.4.4.4	Is the investment analysis carried out in accordance with specific guidance from EB? Is the investment analysis complete and accurate? Is the investment analysis provided in a spreadsheet version? Are all the formulas used readable and all	/6/	DR	The investment analysis is provided in a spreadsheet version. The formulas used are readable and all relevant cells are viewable and unprotected. However, the investment analysis has not been carried out in accordance with the requirements of the EB. Working capital has not been taken as a positive cash flow at the	~~CAR-6~~ OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			end of the investment horizon, and the salvage value of the project assets has not been included.	
B.4.4.5	Cross-check the parameters used in the financial analysis against third party or publicly available sources (all parameters used as input values shall be cross-checked and assessed).	/1/ /6/	DR, CC The input values used in the investment analysis are common in the market and are not overly optimistic and pessimistic vis-à-vis common values for windparks in Turkey. However, no comprehensive list of input values and sources including page numbers has been provided by the PP.	~~CR-4~~ OK
B.4.4.6	Are the input values used in the investment analysis valid and applicable at the time of the investment decision taken by the PP?	/1/ /6/	DR Please refer to Section B.4.4.5 of this validation protocol.	~~CR-4~~ OK
B.4.4.7	Where applicable, the PFL has been defined ex-ante according to the applicable EB guideline?	/1/ /6/	DR The plant load factor is stated in the investment analysis spreadsheet, but the source of the value used has not been stated so that the appropriateness of the value used cannot be assessed.	~~CR-5~~ OK
B.4.4.8	Does the time period of the investment analysis reflect the expected operation of the underlying project activity (technical lifetime)?	/1/ /6/	DR The investment horizon in the investment analysis is 20 years, while the technical lifetime of the project is 25 years, according to the PDD. Therefore, the period of the investment analysis does not reflect the expected operation of the underlying project activity (i.e., the technical lifetime).	~~CR-7~~ OK
B.4.4.9	Does the fair value of the project activity assets is included at the end of the assessment period as a cashflow in the final year? Is the fair value calculated in accordance with local accounting regulations where available or international best practice?	/1/ /6/	DR No, no fair value or salvage value is included at the end of the investment horizon. Please refer to Section B.4.4.4 of this validation protocol.	~~CR-6~~ OK
B.4.4.10	Does the income tax calculation take depreciation into account? Is the depreciation year in accordance with normal accounting practice in the Host Country	/1/ /6/	DR Not applicable, because the financial indicator used is the pre-tax project IRR and not the after tax project IRR	OK
B.4.4.11	Sensitivity analysis: have the key parameters contributing to more than 20% of the revenue/costs during operating or implementation been identified?	/1/	DR Three parameters have been varied in the sensitivity analysis: electricity prices, capital investment and O&M costs. However, no formal justification has been provided for the selection of these variables for variation.	~~CR-6~~ OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
B.4.4.11	Sensitivity analysis: is the range of variations is reasonable in the project activity? The main parameters can be changed for the different project category.	/1/	DR	The parameters selected for variation have been varied by 15% (upwards and downwards). This is a larger range than is customary (10%), and therefore fully acceptable.	OK
B.4.4.12	Have the key parameters been varied to reach the benchmark and the likelihood of this happening been justified to be small?	/1/	DR	The key parameters have not been varied to equalize the calculated financial indicator with the benchmark.	~~CR-7~~ OK
B.4.5 Barrier analysis					
B.4.5.1	Are the barriers identified complimentary to a potential investment analysis?	/1/ /12/	DR	Barrier analysis is not applied as the additionality of the proposed project activity is demonstrated through investment analysis, which is in line with the methodological tool "Tool for the demonstration and assessment of additionality".	OK
B.4.5.2	How were the investment barriers assessed to be real?	/1/ /12/	DR	Please refer to Section B.4.5.1 of this validation protocol.	OK
	How were the technological barriers assessed to be real?	/1/ /12/	DR	Please refer to Section B.4.5.1 of this validation protocol.	OK
B.4.5.3	How were the other barriers assessed to be real?	/1/ /12/	DR	Please refer to Section B.4.5.1 of this validation protocol.	OK
B.4.5.4	Barriers due to prevailing practice (First of its kind): does the project apply measures currently covered in the framework (fuel and feedstock switch, switch of technology with or without change of energy source, methane destruction, methane formation avoidance)?	/1/ /12/	DR	Please refer to Section B.4.5.1 of this validation protocol.	OK
B.4.5.5	Barriers due to prevailing practice (First of its kind): do the technologies deliver the same output and differ by at least of energy source/fuel, feed stock, size of installation?	/1/ /12/	DR	Please refer to Section B.4.5.1 of this validation protocol.	OK
B.4.5.6	Barriers due to prevailing practice (First of its kind): does the applicable geographical area is in compliance with the definition as per the EB guideline?	/1/ /12/	DR	Please refer to Section B.4.5.1 of this validation protocol.	OK
B.4.5.7	Is the project activity prevented by the identified barriers and at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/1/ /12/	DR	Please refer to Section B.4.5.1 of this validation protocol.	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
B.4.5.8	How the GS can alleviate the identified barriers?	/1/ /12/	DR	Please refer to Section B.4.5.1 of this validation protocol.	OK
B.4.6 Common practice analysis					
B.4.6.1	Does the project apply measures currently covered in the framework (fuel and feedstock switch, switch of technology with or without change of energy source, methane destruction, methane formation avoidance)?	/1/ /12/	DR	The project does apply the measures described in the “Tool for the demonstration and assessment of additionality” /12/.	OK
B.4.6.2	Do the technologies deliver the same output and differ by at least of energy source/fuel, feed stock, size of installation, and investment climate in the date of the investment decision, other features?	/1/ /6/ /12/	DR, CC	According to the PDD version /01/, 22 projects could be found in the applicable power installation range of 19.3 MW _e to 57.8 MW _e , N _{all} = 22. 2 projects are identified as similar, so N _{diff} = 20. The N _{all} classification could not be justified. Please clarify how the power plants in operation are classified. The listed power plants do not match with the provided reference (http://www2.epdk.org.tr/lisans/elektrik/lisansdatabase/verile_nuretim.asp).	CAR-8 OK
B.4.6.3	Does the applicable geographical area is in compliance with the definition as per the EB guideline?	/1/ /6/ /12/	DR	The common practice is applied for whole country. The definition is in line with the definition as per “Tool for the demonstration and assessment of additionality” /12/.	OK
B.4.6.4	How many similar non-CDM-projects exist in the region within the scope? (describe how the steps of the additionality tool have been applied)	/1/ /6/ /12/	DR, CC	According to the PDD version /01/, 22 projects could be found in the applicable power installation range of 19.3 MW _e to 57.8 MW _e , N _{all} = 22. 2 projects are identified as similar, so N _{diff} = 20. Please refer to Section B.4.6.2 of this validation protocol.	CAR-8 OK
B.4.6.5	What is the data source(s) used for the common practice analysis?	/1/ /6/ /12/	DR	The common practice is based on data of Energy Market Regulatory Authority.	OK
B.4.7 Do No Harm Assessment					
B.4.7.1	Does the project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people? Does the project is not complicit in Human Rights abuses? (Annex H of GS Toolkit – § 1).	/2/ /7/ /8/	DR	The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicit in Human Rights abuses.	OK
B.4.7.2	Does not the project involve and is not complicit in involuntary resettlement?	/2/ /7/ /8/	DR	The project does not involve and is not complicit in involuntary resettlement.	OK
B.4.7.3	Does not the project involve and is not complicit in the	/2/ /7/ /8/	DR,	There is an archeological finding near to the location of	OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
alteration damage or removal of any critical cultural heritage?	/23/ /30/ /45/	CC, I	Turbine Number 1 as confirmed through the Archeological Findings Report /30/. The coordinates of Turbine Number 1 has been changed as confirmed through the approval Generation License /23/. As per the GS Local Stakeholder Consultation Report Review Feedback of 22/11/2012 /45/, PP is requested to ensure clear mitigation measure such as archeologist observer throughout the construction. The Archeological Findings Report of 17/08/2012 /30/ which is prepared by Tekirdag Governorship Culture and Tourism Directorate has been submitted to the validation team. According to the report, Turbine No.1 is located at the archeological site and it is not allowed to locate Turbine No.1 to the planned location. Based on this report, the location of the turbine has been changed as confirmed through the amendment Generation License /23/. Also, the area defined as archeological site has been visit during on site visit and it has been confirmed that the turbine will not located at the archeological site. The new location and the fundamental of Turbine No.1 have been seen.	
B.4.7.4 Does the project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights?	/2/ /7/ /8/ /27/	DR, CC	The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights. Turkey has ratified ILO Convention 87 (Freedom of Association and Protection of the Right to Organize Convention) and ILO Convention 98 (Right to Organize and Collective Bargaining Convention) /27/ .	OK
B.4.7.5 Does not the project involve and is not complicit in any form of forces compulsory labour?	/2/ /7/ /8/ /27/	DR, CC	The project does not involve and is not complicit in any form of forces compulsory labour. Turkey has ratified ILO Convention 29 and 105 (Forced Labour Convention) /27/ .	OK
B.4.7.6 Does not the project employ and is not complicit in any form of child labour?	/2/ /7/ /8/ /27/	DR, CC	The project does not employ and is not complicit in any form of child labour. Turkey has ratified ILO Convention 138 (Minimum Age Convention) and 182 (Worst Forms of Child Labour Convention) /27/ .	OK
B.4.7.7 Does not the project involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis?	/2/ /7/ /8/ /27/	DR, CC	The project does involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. Turkey has ratified ILO Convention 100 (Equal Remuneration Convention) and 111	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				(Discrimination in Respect of Employment and Occupation) Convention) /27/.	
B.4.7.8	Does the project provide workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments?	/2/ /7/ /8/ /44/	DR, CC	The workers can get injured. The project activity complies with all relevant environment, health and safety regulations. The project owner will take all precautions as confirmed during on site visit. Also the procedure of emergency action plan /44/ was seen. It has been explained by the PP that the main subcontractor of the project owner (Bektas Insaat) reports construction activities daily to the project owner. Also, health and safety engineer prepares daily health and safety report. During on site visit, the reports were not available. Please provide a sample of reports. It has been mentioned by the PP during on site visit that all employees hired for construction period attends Health and Safety Training, However, the training records could not been provided.	~~CR-8~~ OK
B.4.7.9	Does the project take a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle?	/2/ /7/ /8/ /28/	DR, CC	Preliminary EIA Report shows that project site is located on a 1 st grade earthquake risk geography, which has high earthquake risk /28/. So all relevant legal building codes will be applied appropriately.	OK
B.4.7.10	Does not the project involve and is not complicit in significant conversion or degradation of critical natural habitats, including those that are legally protected, officially proposed for protection, identified by authoritative sources for their high conservation value, or recognized as protected by traditional local communities?	/2/ /7/ /8/ /28/	DR	The project is implemented within the boundaries of the existing plant area. There is no protected site, critical habitat or area having high conservation value as in stated in the PIF /28/.	OK
B.4.7.11	Does not the project involves and is not in complicit in corruption?	/2/ /7/ /8/	DR, CC	The project does not involve and is not in complicit in corruption.	OK
B.4.8 Sustainability Assessment					
B.4.8.1	Are the GS indicators of sustainable development identified according to the Annex I of the GS Toolkit? (list the identified indicators)	/2/ /7/ /8/	DR, CC	The GS indicators of sustainable development are defined as per the Annex I of the GS Toolkit /8/. The baseline situation and the future target are described for each parameter. The indicators are connected to the localized Millennium Development Goals as per the Annex I of the GS Toolkit. The identified indicators under Sustainable	~~CR-9~~ OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			Development Matrix of GS Passport is as follows: – Air quality – Water quality and quantity – Soil condition – Other pollutants – Biodiversity – Quality of employment – Livelihood of the poor – Access to affordable and clean energy services – Human and institutional capacity – Quantitative employment and income generation – Balance of payments and investment – Technology transfer and technological self-reliance In water quality and quantity, “Proportion of the population using improved drinking water sources” is defined as Target 7.10 which does not match with the MDG categories.	
B.4.8.2	Are the justification choices documented? Which data sources have been provided for references?	/2/ /7/ /8/	DR, CC The justification for all indicators is presented in the GS Passport /2/. The references are mainly based on official web site. The reference given for “access to affordable and clean energy services” (footnote 8) and “balance of payments and investment” (footnote 9) does not run.	CR-10 OK
B.4.8.3	Which parameters have been identified for the selected indicators?	/2/ /7/ /8/ /45/	DR All GS indicators were chosen as described in Annex I. – <i>Air quality</i>: SO₂ and NO_x emissions (+) – <i>Water quality and quantity</i>: “Cooling water discharge prevented” and “waste water discharge” (+) – <i>Soil condition</i>: “Erosion risk control at new roads” and “earthquake risk management” (0) – <i>Other pollutants</i>: “Noise pollution” and “solid waste” (0) – <i>Biodiversity</i>: Bird mortality (0) – <i>Quality of employment</i>: Fair labour practices, health and safety precautions (+) – <i>Livelihood of the poor</i>: Fair land acquisition (0)	OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			– Access to affordable and clean energy services: Clean energy (+) – Human and institutional capacity: (0) – Quantitative employment and income generation: Jobs created (+) – Balance of payments and investment: Saving on natural gas imports (+) – Technology transfer and technological self-reliance: (0) As per the GS Toolkit /8/ the baseline situation and the aimed situation in project must be described briefly for each parameter. There is no explanation for “Quantitative employment and income generation” and “Technology transfer and technological self-reliance” parameters. As per the GS Local Stakeholder Consultation Report Review Feedback of 22/11/2012 /45/ (FAR 3), dust emission is eliminated by the water-tender as confirmed during on site visit. Also, the local stakeholders have been interviewed about dust emissions and no negative feedback has been received. As per the GS Local Stakeholder Consultation Report Review Feedback of 22/11/2012 /45/ (FAR 4), the PP is requested to consider promotion of replanting activities in the vicinity of the project by the local authority or the project owner and ensure erosion control. It has been seen during on site visit that the area of the project is covered with sandstone. Also, PP has mentioned that soil investigation report has been prepared. Please justify by providing objective evidence that the erosion control is ensured. As per the GS Local Stakeholder Consultation Report Review Feedback of 22/11/2012 /45/ (FAR 5), PP is requested to addressed the impacts stated in the Pre-EIA with given measures. – Noise level will be under legal limit noise emission	~~CR-11~~ OK OK ~~CR-12~~ OK ~~CAR-9~~ OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				level. - The PP has mentioned that closed septic tank is used at the project site for waste water and it is disposed regularly by vacuum. However, the disposal records were not available during on site visit. Please justify by providing objective evidence that the waste water is disposed accordingly. - Waste oil will be stored on site properly and will be collected on site and disposed by licensed companies according to legal requirements. However, PP has mentioned that the subcontracts are responsible for the maintenance of equipment and turbines. Please justify by providing objective evidence. - Waste batteries will send to Portable Battery Manufacturers and Importers Association (TAP).	
B.4.9 Conclusion					
B.4.9.1	What is the conclusion with regard to the additionality of the project activity?	/1/ /6/ /12/ /14/	DR, CC	Please refer to Section B.4.4, B.4.5 and B.4.6 of this validation protocol.	~~CAR-5~~ ~~CAR-6~~ ~~CAR-7~~ ~~CAR-8~~ ~~CR-3~~ ~~CR-4~~ ~~CR-5~~ ~~CR-6~~ ~~CR-7~~ OK
B.5 Algorithms and/or formulae used to determine emission reductions					
B.5.1 Baseline emissions					
B.5.1.1	Are the steps and equations applied to calculate the baseline emissions in compliance with the requirements of selected baseline and monitoring methodology?	/1/ /11/ /13/	DR, CC	The calculation of baseline emission reductions is carried out in a conservative manner providing documentation and references to data sources. An approved CDM methodology, ACM0002 /11/ and methodological tool “Tool to calculate the emission factor for an electricity system /13/” is applied. The official published data, TEIAS statistics, are used to determine the emission factor of the grid. The emission factor is calculated as a combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				in the tool.	
B.5.1.2	Have conservative assumptions been used when calculating the baseline emissions and are the uncertainty estimates properly addressed? Are all the values used in the PDD considered reasonable in the context of the proposed project activity?	/1/ /6/ /11/ /13/ /39/ /42/ /47/	DR, CC	The data used to determine the OM emission factor of the grid is obtained from “Electricity Generation & Transmission Statistics of Turkey, 2010” /42/, which is published by TEIAS. The validation team has confirmed that this is the most updated data at the time for submission for validation, which is considered as appropriate. The emission factors of fuels used in the calculations are based on IPCC default values at the lower limit of uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter 1 of Volume 2 of the 2006 IPCC Guidelines on National GHG Inventories /39/, which is in line with the methodological tool, and considered as appropriate. The net energy conversion efficiency of power unit is taken from Annex 1 of the “Tool to calculate the emission factor for an electricity system” /13/ which is deemed reasonable. The emissions used in the Operating Margin emission factor calculation is based on National Inventory Report /47/. However, the calculated emission which is based on TEIAS statistic is higher than applied figures. Please clarify. All links which refer to TEIAS statistics shall be updated. The filter applied at column G of BM calculation /6/ is not clear. Also, it could not be justified how VER projects are excluded from BM calculation /6/. Please refer to Section A.2.1 of this validation protocol.	CAR-2 CAR-10 OK
B.5.1.3	Baseline Emissions estimated	/1/ /6/ /11/ /13/ /39/ /42/ /47/	DR, CC	Please refer to Section B.5.1.2 of this validation protocol.	CAR-10 OK
B.5.2 Project emissions					
B.5.2.1	Are the steps and equations applied to calculate the project emissions in compliance with the requirements of selected baseline and monitoring methodology? Are all the values used in the PDD considered reasonable in the context of the proposed project activity?	/1/ /11/	DR	Project emissions are neglected since the project activity is a wind power plant in line with the ACM0002 /11/ .	OK
B.5.2.2	Have conservative assumptions been used when	/1/ /11/	DR	Project emissions are neglected since the project activity is	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
	calculating the project emissions and are the uncertainty estimates properly addressed?			a wind power plant in line with the ACM0002 /11/ .	
B.5.2.3	Project emissions estimated	/1/ /11/	DR	Project emissions are neglected since the project activity is a wind power plant in line with the ACM0002 /11/ .	OK
B.5.3 Leakage					
B.5.3.1	Are the steps and equations applied to calculate the leakage in compliance with the requirements of selected baseline and monitoring methodology? Are all the values used in the PDD considered reasonable in the context of the proposed project activity?	/1/ /11/ /25/	DR	The leakage emissions are neglected as per ACM0002 /11/ since energy generating equipment is not transferred from or to another activity as validated equipment agreement /25/ .	OK
B.5.3.2	Have conservative assumptions been used when calculating the leakage and are the uncertainty estimates properly addressed?	/1/ /11/ /25/	DR	The leakage emissions are neglected as per ACM0002 /11/ since energy generating equipment is not transferred from or to another activity as validated equipment agreement /25/ .	OK
B.5.3.3	Leakage estimated	/1/ /11/ /25/	DR,	The leakage emissions are neglected as per ACM0002 /11/ since energy generating equipment is not transferred from or to another activity as validated equipment agreement /25/ .	OK
B.5.4 Emission reductions					
B.5.4.1	Has the methodology been correctly applied to calculate the emission reductions and can this be replicated by the data provided in the PDD and supporting files to be submitted for registration?	/1/ /11/	DR, CC	The ex-ante emission reduction has been calculated as following equation in line with the ACM0002 /11/ : $ER_y = BE_y - PE_y$ The project emission and leakage emissions are zero for the project activity. Therefore, the emission reduction equals to baseline emissions.	OK
B.5.4.2	Are all the assumptions and data used by the project participants listed in the PDD including their references and sources?	/1/ /11/	DR, CC	Please refer to Section B.5.1 of this validation protocol.	~~CAR-10~~ OK
B.5.4.3	Is all the documentation used by the project participants as the basis for assumptions and source of data quoted and interpreted in the PDD?	/1/ /11/	DR, CC	Please refer to Section B.5.1 of this validation protocol.	~~CAR-10~~ OK
B.5.4.4	Emission Reductions estimated	/1/ /11/	DR, CC	Please refer to Section B.5.1 of this validation protocol.	~~CAR-10~~ OK
B.6 Monitoring plan					

Checklist Question		Reference	MoV ¹	Comments	Conclusion
B.6.1 Parameters ex-ante					
B.6.1.1	Does the monitoring plan contain the list of all parameters required by the approved methodology and by the applicable methodological tool?	/1/ /11/ /13/	DR, CC	The monitoring plan (data and parameters fixed ex ante) does include all data and parameters fixed ex ante required by the applied methodology /11/ and baseline tool /13/ .	OK
B.6.1.2	How were the parameters available at validation verified?	/1/ /11/ /13/ /39/	DR, CC	Fuel heating values: The provided source (TEIAS website link) does not run. Please refer to Section B.5.1 of this validation protocol. Fuel consumption: The provided source (TEIAS website link) does not run. Please refer to Section B.5.1 of this validation protocol. The gross electricity generation by fuel type j in year y (2006-2010) by the system ($GEN_{j,y}$): The provided source (TEIAS website link) does not run. Please refer to Section B.5.1 of this validation protocol. System Net Electricity Generation: The provided source (TEIAS website link) does not run. Please refer to Section B.5.1 of this validation protocol. Net Delivery Ratio: It is calculated by dividing "System Net Electricity Generation" by "System Gross Electricity Generation". The system net electricity delivered in year y by the total of all power plants in the grid, excluding lc-mr sources (GEN_y): It is calculated based on Gross electricity generation except lc-mr sources, net delivery ratio and net electricity delivered to the grid except lc-mr sources. CO₂ emission factor of fossil fuel type i in year y ($EF_{CO_2,i,y}$): The data is based on the default value at the lower limit of the uncertainty at a 95% confidence interval of 2006 IPCC Guidelines for National Greenhouse Gas Inventories /39/. Electricity Import: The provided source (TEIAS website link) does not run. Please refer to Section B.5.1 of this validation protocol. Average net energy conversion efficiency of power unit	~~CAR-10~~ OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				m in year y ($\eta_{m,y}$): The net energy conversion efficiency of power unit are taken from Annex 1 of the “Tool to calculate the emission factor for an electricity system” /13/ which is deemed reasonable.	
B.6.1.3	Which default data have been selected and applied?	/1/ /11/ /13/ /39/	DR, CC	The emission factors of fuels used in the calculations are based on IPCC default values at the lower limit of uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter 1 of Volume 2 of the 2006 IPCC Guidelines on National GHG Inventories /39/, which is in line with the methodological tool, and considered as appropriate. The net energy conversion efficiency of power unit are taken from Annex 1 of the “Tool to calculate the emission factor for an electricity system /13/” which is deemed reasonable.	OK
B.6.1.4	Are all the values used in the PDD considered reasonable in the context of the proposed project activity?	/1/ /11/ /13/	DR, CC	The monitoring plan (data and parameters fixed ex ante) does not include all data and parameters fixed ex ante such as $FC_{i,y}$ required by the applied methodology /11/ and baseline tool /13/. Please ensure that all necessary parameters are included.	~~CAR-11~~ OK
B.6.2 Parameters ex-post					
B.6.2.1	Does the monitoring plan described in the PDD comply with the requirements of the methodology and the applicable methodological tool?	/1/ /11/ /13/	DR, CC	The monitoring plan described in the PDD complies with the requirements of the methodology /11/ and the applicable methodological tool /13/.	OK
B.6.2.2	Does the monitoring plan contain all necessary parameters and are they clearly described?	/1/ /11/ /13/	DR, CC	The monitoring plan includes all necessary data and parameters ex-post required by the applied methodology /11/ and the applicable methodological tool /13/. The only parameter included to the monitoring plan is net Electricity generated and delivered to the grid by power plant in year y ($EG_{facility,y}$).	OK
B.6.2.3	Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate? Are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate?	/1/ /11/ /13/ /40/	DR, CC	Measurement equipment is described and the accuracy of the measurement equipment is addressed in the PDD version 1.1 /1/. Net electricity generation ($EG_{facility,y}$) will be measured by two meters. The accuracy class of the meters will be 0.5S which is in line with the “Communiqué for Measurement Devices used in the Electricity Market” /40/ as explained in	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				the PDD version 1.1 /1/. The maintenance and calibration of meters are under TEIAS responsibility. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration.	
B.6.2.4	Is the monitoring and recording frequency adequate for all monitoring parameters? Is it in line with the monitoring methodology?	/1/ /11/ /13/	DR, CC	The monitoring frequency of EG _{facility,y} is defined as continuously and recording frequency is defined monthly in line with the methodological tool /13/.	OK
B.6.2.6	How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design? Please confirm the ability of the project participants to implement the described monitoring plant.	/1/ /11/ /13/ /41/	DR, CC	The monitoring arrangements described in the monitoring plan are feasible within the project design. The electricity generation will be monitored in line with the TEIAS rules /41/.	OK
B.6.3 Monitoring of the GS indicators of sustainable development					
B.6.3.1	Does the monitoring plan include the GS indicators of sustainable development?	/2/ /7/ /8/	DR	The SD parameters which are scored non-neutral and the mitigation measures stated in the “Do no harm assessment” table are included to Sustainability Monitoring Plan of GS Passport which are listed below: – <i>Air quality</i>: SO₂ and NO_x emissions – <i>Water quality and quantity</i>: “Cooling water discharge prevented” and “waste water disposal” – <i>Soil condition</i>: “Erosion risk control at new roads” and “earthquake risk” – <i>Other pollutants</i>: “Noise pollution” and “solid waste” – <i>Biodiversity</i>: Impact on bird migration route – <i>Quality of employment</i>: Fair labour practices, health and safety precautions – <i>Livelihood of the poor</i>: Land acquisition – <i>Access to affordable and clean energy services</i>: Clean energy – <i>Quantitative employment and income generation</i>: Jobs created – <i>Balance of payments and investment</i>: Saving on natural gas imports	OK
B.6.3.2	Does the monitoring plan give the way (how, when, by who) of monitoring of each GS indicator?	/2/ /7/ /8/	DR, I	The Sustainability Monitoring Plan includes the way of monitoring for each GS indicator as explained below: – <i>Air quality</i>: The reductions of SO₂ and NO_x emissions	OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
			are monitored monthly by calculation. – <i>Water quality and quantity:</i> Cooling water discharge prevented is monitored monthly by calculation. Waste water disposal is monitored continuously by checking whether disposal practice comply with the legal requirement. – <i>Soil condition:</i> Erosion risk control at new roads is monitored continuously by visual inspection whether the roads have caused significant erosion. Earthquake risk is monitored continuously by checking the legal compliance with construction codes of the power house and turbine towers. – <i>Other pollutants:</i> Noise pollution is monitored continuously by interviews with local stakeholders. Solid household waste is monitored continuously by visual inspection. Waste oil is monitored continuously by checking waste oil disposal invoices. – <i>Biodiversity:</i> Impact on bird migration route is monitored continuously by interviews with stakeholders. – <i>Quality of employment:</i> Fair labour practices, health and safety precautions is monitored continuously by assessing qualitative assessment of fair labour practices such as compensation, social security, proper work safety and health precautions, training etc. – <i>Livelihood of the poor:</i> Land acquisition is monitored continuously by interviews with local stakeholders. – <i>Access to affordable and clean energy services:</i> Clean energy is monitored monthly by calculation. – <i>Quantitative employment and income generation:</i> Jobs created is monitored continuously through the social security records. – <i>Balance of payments and investment:</i> Saving on natural	

Checklist Question	Reference	MoV ¹	Comments	Conclusion
B.6.3.3	Does the monitoring plan give the future project target for the parameter?	/2/ /7/ /8/	gas imports is monitored continuously by calculation. The Sustainability Monitoring Plan includes future target for each GS indicator as explained below: – <i>Air quality:</i> SO₂ and NO_x emission reduction corresponding to annual generation. The net electricity generation of 2010 could not be justified since the reference (footnote 11) link does not run. – <i>Water quality and quantity:</i> Cooling water discharge prevented is monitored monthly by calculation. The net electricity generation of 2010 could not be justified since the reference (footnote 14) link does not run. Household waste water will be stored in a septic tank on site and disposed of in accordance with regulations. – <i>Soil condition:</i> Erosion risk will be minimized. The construction quality ensures that the Project is sufficiently strong for earthquake risk. – <i>Other pollutants:</i> Noise level will be under legal limit noise emission level. It is mentioned in the GS Passport that solid waste caused from daily operation will be disposed at the Gelibolu landfill. Please clarify how the wastes will be transported to landfill area. It is mentioned in the GS Passport that waste oil will be stored on site properly and will be collected on site and disposed by licensed companies according to legal requirements. Please refer to CAR 9. – <i>Biodiversity:</i> No bird mortality is aimed. – <i>Quality of employment:</i> The Project will employ local people with fair labour practices without any kind of discrimination. – <i>Livelihood of the poor:</i> Land acquisition is carried out properly according to legal requirements and that land owners are compensated fairly. – <i>Access to affordable and clean energy services:</i> The	CAR-12 OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				Project is expected to save fossil fuel which corresponds to annual electricity generation. The current situation could not be justified since the reference (footnote 8) does not run. – <i>Quantitative employment and income generation</i>: The project aims to employ 20 people during operation. – <i>Balance of payments and investment</i>: Saving on natural gas imports which correspond to annual electricity generation. The current situation could not be justified since the reference (footnote 9) does not run.	
B.6.4 Management/Quality Assurance/Quality Control					
B.6.4.1	Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?	/1/ /41/	DR	The electricity generation and consumption is measured in line with the TEIAS rules and requirements /41/. The net electricity is monitored by two meters. The data is based on main meter and secondary meter is used in case of problem with the main meter. Both of meters are sealed by TEIAS and are under TEIAS's control. The project owner is not able to access the meters. The project owner can monitor electricity generation on SCADA system.	OK
B.6.4.2	Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?	/1/ /13/	DR	The data management and quality assurance and quality control procedures are sufficient to ensure that the emission reductions achieved by the project can be reported ex post and verified during the verification phase.	OK
B.6.4.3	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 CERs, for this project activity, whichever occurs later?	/1/	DR	All data will be kept for at least two years after the crediting period as mentioned in the PDD version 1.1 /1/.	OK
C.1 Crediting period					
C.1.1	What is the expected crediting starting date of the proposed project activity? Does the crediting period start eight week after the request for registration?	/1/	DR	The project is already listed in GS registry. The expected crediting starting date is defined as 01/04/2013 under section C.2.2 of the PDD version 1.1 /1/.	OK
C.1.2	What is the length of the crediting period? Is it clearly defined and reasonable?	/1/	DR	The length of crediting period is defined as seven years and renewable crediting period is selected in the PDD version 1.1 /1/ that is not reasonable.	OK
D.1 Environmental impacts					
D.1.1	Has an analysis of the environment impacts of the project activity been undertaken? Is it clearly and	/1/ /2/ /24/ /28/ /29/	DR, CC	The environmental impact of the project activity is evaluated	CR-13 OK

Checklist Question	Reference	MoV ¹	Comments	Conclusion
sufficiently described in the PDD?			in the GS Passport /2/. Also, a brief summary is presented in the PDD version 1.1 /1/. Preliminary EIA Report of September 2011 /28/ was prepared and submitted to the “Çanakkale Governorship Environment and Urbanization Directorate” in line with the domestic laws and regulations in Turkey /48/. “Çanakkale Governorship Environment and Urbanization Directorate” have issued a Certificate of EIA Exemption dated 26/01/2012 /29/ based on Preliminary EIA Report for 33 wind turbines with a 33 MW installed capacity. After the project design has changed. Please clarify that the Certificate of EIA Exemption is still valid. Also, Environmental and Social Impact Assessment Report of 07/05/2012 /24/ is prepared by a third party for the project activity which is based on current project design (14 x 2.75 MW).	
D.1.3 Is the analysis of the environmental impacts required by the legislation of the host Country? If yes, has the EIA has been approved by local Government? Does the approval contain any conditions that need monitoring?	/2/ /24/ /28/ /29/	DR, CC	Preliminary EIA Report of September 2011 /28/ was prepared and submitted to the “Çanakkale Governorship Environment and Urbanization Directorate” in line with the domestic laws and regulations in Turkey. “Çanakkale Governorship Environment and Urbanization Directorate” have issued a Certificate of EIA Exemption dated 26/01/2012 /29/ based on Preliminary EIA Report for 33 wind turbines with a 33 MW installed capacity. After the project design has changed. Please refer to Section D.1.1 of this validation protocol.	CR-12 OK
D.1.4 Is it the project in line with the current environmental legislation in the host Country?	/2/	DR	The project is in line with the current environmental legislation in the host Country	OK
D.1.5 Is the monitoring of sustainable development indicators/ environmental impacts warranted by legislation in the host country?	/2/	DR	The monitoring of sustainable development indicators/ environmental impacts is not warranted by legislation in the host country.	OK
D.1.6 Are the sustainable development indicators in line with stated national priorities in the host country?	/2/	DR	The monitoring of sustainable development indicators/ environmental impacts is not warranted by legislation in the host country.	OK
E.1 Local stakeholder consultation				
E.1.1 Are the local stakeholders be invited by the PP prior to the publication of the PDD to the UNFCCC website?	/3/ /8/ /45/	DR, I	The stakeholder meeting was held on 20/06/2012 in line with the GS Toolkit /8/ as confirmed through the LSC	OK

Checklist Question		Reference	MoV ¹	Comments	Conclusion
				Report /3/ and by interviews with the stakeholders during on site visit. As per the GS Local Stakeholder Consultation Report Review Feedback of 22/11/2012 /45/ , PP is requested to promote participation of local women to the Stakeholder Feedback Round. During on site visit, the PP has organized a special meeting for women stakeholders. The women lives in Elmadağ Village have been invited to the coffee house of village. They have been informed about the project activity, their requests and complaints have been asked. Also, grievance mechanism and logbook which is available at the coffee house has been explained to the villagers.	
E.1.2	Area the stakeholders invited be considered as regards commenting the proposed project activity?	/3/ /8/	DR	The local people, local authorities, local non-governmental organizations, Ministry of Environment and Urbanization, GS Local Representative, NGO supporters of the GS and local represent of GS are invited to the local stakeholder meeting in line with the GS Toolkit /8/ as confirmed through the LSC Report /3/ .	OK
E.1.3	Is the summary of the comments received from the stakeholders, provided in the PDD complete?	/3/	DR	The summary of the comments received from the stakeholders are presented in the LSC Report /3/ .	OK
E.1.4	Has due account been taken by the project participants of any stakeholder comments received?	/3/	DR	The stakeholder comments received have been taken account as explained in the LSC Report /3/ . No negative comments have been received.	OK
E.1.5	If a stakeholder consultation process is required by regulations/laws in the host Country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	/3/	DR	The stakeholder consultation process is not required by regulations/laws in the host Country.	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	Validation conclusion
CAR 1 “Clean Development Mechanism Project Design Document Form (CDM-PDD), Version 03” is applied. However, a new version of PDD template /17/ under VVS is available. Therefore, PDD version 1.1 /1/ does not comply with the latest version of the “Guidelines for Completing the Project Design Document Form” /18/.	A.1.2 A.1.3	The PDD has been revised according to the most recent PDD template version (04.1).	<u>Review 1 (28/02/2013):</u> The PDD /1/ has been revised as per the latest version of PDD template (version 04.1). <u>Hence, CAR 1 is closed.</u>
CAR 2 The expected annual electricity generation is defined as 108,640 MWh in the PDD version 1.1 /1/ which refers to FSR /26/. The annual electricity generation is 112,000 MWh at Probability of exceedance P90 in the FSR /26/. Please clarify how the expected annual electricity generation and plant load factor is defined. The hub height is defined as 100 m in the PDD version 1.1 /1/; however it is given as 85 m in both agreement /25/ and FSR /26/. Technical specifications of turbines given at Table 3 of the PDD could not be justified. Also a brief description of how the project activity contributes to sustainable development is not mentioned in the PDD.	A.2.1 B.5.1.2	In the calculation of 108,60 MWh in the PDD, the Project's internal electricity consumption has been included as not all of the Project's power generation would be able to be supplied to the grid. However, as this consumption value is based on PP's internal calculations, this consumption is assumed to be zero conservatively. Therefore, the power generation in the PDD has been revised as 112,000 MWh, which corresponds to a plant load factor of 33%. The hub height has been revised as 85 m in the PDD, in line with the agreement and FSR. The information regarding the contribution of the Project activity to sustainable development has been provided in Section D.1. The technical specifications of the turbines have been revised in the PDD according to the Turbine Fact Sheet. <u>Answer to Review 2:</u> The reference has been corrected.	<u>Review 1 (28/02/2013):</u> The expected annual electricity generation is revised as 112,000 MWh in the PDD version 1.1 /1/ as confirmed through the FSR /26/. The hub height has been revised as 85 m in the PDD /1/ in line with the agreement /25/ and FSR /26/. However, technical specifications of turbines given at Table 3 of the PDD /1/ still could not be justified. The description of how the project activity contributes to sustainable development is presented in Section D.1 of the PDD /1/. The technical specifications of turbines given at Table 3 of the PDD /1/ could not be justified; hence, <u>CAR 2 is not closed.</u> <u>Review 2 (22/04/2013):</u> The link given for specification of turbine units (footnote 2-Nordex website) does not match with the real action since the turbine agreement signed with GE. Please correct the reference. <u>Hence, CAR 2 is not closed.</u>

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Validation conclusion
			<u>Review 3 (29/04/2013):</u> The link given for specification of turbine units (footnote 2) is corrected and is line with the real situation. Hence, CAR 2 is closed.
CAR 3 The applicability conditions of applied tools have not been justified clearly under section B.2 of the PDD version 00 /1/.	B.1.3	According to the most recent template version, this section asks the applicability conditions of the applied methodologies (not tools). Therefore, in the section B.2. the applicability of the ACM0002 is discussed, in agreement with UNFCCC requirements. The PDD is revised accordingly.	<u>Review 1 (28/02/2013):</u> It says at the last paragraph of the Section I. Source, Definitions and Applicability of ACM0002 as follows: "In addition, the applicability conditions included in the tools referred to above apply". As per the ACM0002, applicability conditions of applied tools must be discussed accordingly. <u>Hence, CAR 3 is not closed.</u> <u>Review 2 (22/04/2013):</u> The applicability conditions of applied tools now have been justified clearly under section B.2 of the PDD /1/. Hence, CAR 3 is closed.
CAR 4 The timeline of the project does not confirm that continuous actions in parallel with the implementation were taken to secure project status. It shall be demonstrated by the PP that carbon reduction revenue was seriously considered in the decision to proceed with the project activity. Also, some of the dates given at Table 12 of the PDD version 1.1 /1/ could not be justified. Please justify the dates by providing objective evidence.	B.4.3.3	The PP has other registered projects in the GS pipeline and is therefore knowledgeable about the need and requirements of carbon finance and early consideration issues. In this framework, in parallel to PP's previous activities, the PP has collected proposals for carbon development of the Project activity. The date of this prior consideration is 2011, which is before the Project activity starting date which is in 2012. Moreover, the PP has included its carbon revenues in its internal cash projections. This shows that the PP is aware and has taken continuous actions to secure the project status (Annexes 17, 18 and 30). The table including the timeline of the Project has been revised in a way that all of the dates can be	<u>Review 1 (04/03/2013):</u> The objective evidences /49-60/ have been provided to the validation team. However, the date of "confirmation for going ahead with carbon development services" could not be verified since no documentation is provided to DOE. <u>Hence, CAR 4 is not closed.</u> <u>Review 2 (22/04/2013):</u> The date of "confirmation for going ahead with carbon development services" is confirmed according to the Prior Consideration Mail /38/. Hence, CAR 4 is closed.

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Validation conclusion
		justified with objective evidence. All of the objective evidences have been provided to the DOE (Annexes 3, 10, 12, 17, 18, 19, 23, 24, 29). The information regarding the date for "confirmation for going ahead with carbon development services" can be found in Annex 18 .	
CAR 5 Through a direct review of the PDD version 1.1 of 24/09/2012 /1/, it could be verified that the chosen benchmark is the pre-tax Weighted Average Cost of Capital (WACC). The WACC is accepted by the EB guidelines, as evidenced in paragraphs 12-18 of the Guidelines on the Assessment of Investment Analysis version 5 /14/, which discuss the use of (among others) the WACC. However, the WACC has not been calculated taking account of paragraph 17 of the Guidelines on the Assessment of Investment Analysis.	B.4.4.3	Paragraph 17 of the Guidelines on the Assessment of Investment Analysis is applicable in the case "if a company's internal benchmark is used for the expected return on equity". However, this is not the case for the Project activity, since an industry (a common RoE for wind, hydro and geothermal power plants) average return on equity of 15% is used for calculating WACC. This 15% rate is taken from a World Bank report (p.80, submitted to DOE as Annex 31) that studies different renewable energy technology investment types in Turkey and is not specific for the Project activity. Therefore, this paragraph is not applicable for the benchmark analysis. Please also note that the E/D ratio (20/80), which is used to calculate WACC, is also not a project-specific rate, but rather the conservative minimum ratio allowed legally. As requested, a revised spreadsheet (<i>Sadilli-BL-v1.3-20130419-NoTaxIRR</i>) has been provided to the DOE, where the VAT and the corporate tax rate (cells D11 and D12) are taken as zero. With this change, the post-tax and the pre-tax WACC have changed (cells G6 and G7). Even with this consideration, the project IRR remains below the benchmark. A complementary formulation has been added to the PDD section <i>Sub-step 2c: Calculation and comparison of financial indicators</i>.	<u>Review 1 (11/03/2013):</u> We do not necessarily accept the first part of the answer provided, but accept the contents of the last paragraph in which it is stated that the assume debt to equity ratio of 80 : 20 is below a realistic value. This means that the WACC's value is underestimated relative to the true value, and hence that the additionality argument is presented in a conservative manner. This is a sufficient argument. However, the use of a pre-tax WACC assumes that the potential tax reductions from interest payment can indeed be realized, which may not be the case. The PP is therefore requested to demonstrate that even if the tax benefits from the use of debt financing cannot be realized, the WACC will be above the project IRR. <u>Hence, CAR 5 is not closed.</u> <u>Review 2 (28/04/2013):</u> It could be verified by checking the new and revised spreadsheet (see <i>Sadilli-BL-v1.3-20130419-NoTaxIRR</i>) that even if the WACC is calculated assuming that no tax advantages from debt financing can be derived, the project IRR will be below the WACC. This is the most conservative interpretation of the additionality test using the WACC. <u>Hence, CAR 5 is closed.</u>
CAR 6	B.4.4.4	The worksheet "investment analysis	<u>Review 1 (11/03/2013):</u>

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Validation conclusion
The investment analysis is provided in a spreadsheet version. The formulas used are readable and all relevant cells are viewable and unprotected. However, the investment analysis has not been carried out in accordance with the requirements of the EB. Working capital has not been taken as a positive cash flow at the end of the investment horizon, and the salvage value of the project assets has not been included.	B.4.4.9	spreadsheet" has an item called "Gain/Loss at final year" which includes a positive cash flow at the end of the investment horizon, concerning the working capital. As the investment horizon is equal to the life time of the Project, the salvage value is taken as 0. Please refer to CAR 7 for details.	It could be verified with reference to the revised spreadsheet dated 27 February 2013, that the investment analysis contains a value "Gain/Loss at the final year". Contrary to what is stated, this value is above zero. This is more conservative that assuming a zero value, although the impact on the project IRR is minor. <u>Hence, CAR 6 is closed.</u>
CAR 7 The investment horizon in the investment analysis is 20 years, while the technical lifetime of the project is 25 years, according to the PDD. Therefore, the period of the investment analysis does not reflect the expected operation of the underlying project activity (i.e., the technical lifetime).	B.4.4.8	The investment horizon has been extended to 25 years and the PDD has been revised accordingly. Therefore, the revised investment analysis reflects the expected operation of the underlying project activity (i.e., the technical lifetime). Please note that to be on the conservative side, the cash flow does not include any increase in O&M expenses or overhauling costs.	<u>Review 1 (11/03/2013):</u> It could be verified with reference to the revised spreadsheet dated 27 February 2013, that the investment horizon has been extended to 25 years. <u>Hence, CAR 7 is closed</u>
CAR 8 According to the PDD version /01/, 22 projects could be found in the applicable power installation range of 19.3 MW_e to 57.8 MW_e, N_{all}= 22. 2 projects are identified as similar, so N_{diff} = 20. The N_{all} classification could not be justified. Please clarify how the power plants in operation are classified. The listed power plants do not match with the provided reference (http://www2.epdk.org.tr/lisans/elektrik/lisansdat abase/verilenuretim.asp).	B.4.6.2 B.4.6.4	The list of the power plants used in the calculations have been revised according to the licenses acquired by EMRA on 24.12.2012. As the listed power plants in the reference website are revised by EMRA in irregular intervals, differences may occur between the list of power plants used in the calculations and the list of power plants provided in the reference. As the electrical capacity of the Project is 33 MW, the range of 16.5 MW_e to 49.5 MW_e has been considered. Consequently, both N_{all} and N_{diff} have been found to be 56. N_{diff} has been estimated by using all of the filters in the calculation spreadsheet, whereas N_{all} has been estimated by excluding the filter regarding the facility types (column E). The power plants in operation are classified such that the parameter "capacity in operation" is	<u>Review 1 (04/03/2012):</u> According to the licenses acquired by EMRA on 24/12/2012, the list of power plant used in the calculations has been revised. As mentioned in the PDD /1/ that 56 projects are found for N_{all} and N_{diff} is also 56. The N_{all} classification could be confirmed according to the "Tool for the demonstration and assessment of additionality". <u>Hence, CAR 8 is closed.</u>

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Validation conclusion
		higher than 0.	
CAR 9 As per the GS Local Stakeholder Consultation Report Review Feedback of 22/11/2012 /45/ (FAR 5), PP is requested to addressed the impacts stated in the Pre-EIA with given measures. - The PP has mentioned that closed septic tank is used at the project site for waste water and it is disposed regularly by vacuum. However, the disposal records were not available during on site visit. Please justify by providing objective evidence that the waste water is disposed accordingly. - Waste oil will be stored on site properly and will be collected on site and disposed by licensed companies according to legal requirements. However, PP has mentioned that the subcontracts are responsible for the maintenance of equipment and turbines. Please justify by providing objective evidence.	B.4.8.3	- The invoice record regarding the waste water disposal carried out by septic tank has been provided to the DOE (Annex 26). - According to the internal waste disposal protocol of the Project owner, the waste oil is regularly transferred by the authorized services with convenient equipment. The protocol has been provided to the DOE (Annex 28). The Passport is revised accordingly. Answer to Review 2: The revised passport has been provided to the DOE.	<u>Review 1 (04/03/2012):</u> The PP has mentioned that closed septic tank is used at the project site for waste water and it is disposed regularly by vacuum. The invoice record for wastewater disposal /54/ is provided to DOE. According to the internal waste disposal protocol of the Project owner, the waste oil is regularly transferred by the authorized services with convenient equipment and it is not stored temporarily at the project site. The protocol has been provided to the DOE. However, it is still mentioned in the Passport that waste oil etc. (gearbox oil waste, oil filters etc.) will be stored on site properly and will be collected on site and disposed by licensed companies according to legal requirements. <u>Hence, CAR 9 is not closed.</u> <u>Review 2 (22/04/2013):</u> Revised Passport does not provided to the Validation team. <u>Hence, CAR 9 is not closed.</u> <u>Review 3 (29/04/2013):</u> Revised Passport has been provided to the Validation team. Also the explanation about waste oil has been corrected as Waste oil etc. (gearbox oil waste, oil filters etc.) will be collected on site and disposed by licensed companies according to legal requirements. <u>Hence, CAR 9 is closed.</u>
CAR 10 The emissions used in the Operating Margin emission factor calculation is based on National	B.5.1.2 B.5.1.3 B.5.4.2	Operating Margin Emission factor can be different when National Inventory Report or TEIAS statistics are used differently. However, for the sake of high data quality and consistency,	<u>Review 1 (11/03/2013):</u> The PP's explanation was found acceptable since the applied figures are taken form National

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Validation conclusion
Inventory Report /47/. However, the calculated emission which is based on TEIAS statistic is higher than applied figures. Please clarify. All links which refer to TEIAS statistics shall be updated. The filter applied at column G of BM calculation /6/ is not clear. Also, it could not be justified how VER projects are excluded from BM calculation /6/.	B.5.4.3 B.5.4.4	this factor has been calculated based on the National Inventory Report, which is very close to the calculated value. The links which refer to TEIAS statistics have been updated. The selection of cohort of power plants that are included in the BM list, carbon projects and number corrections are excluded. For certain years, more detailed information on VER projects were provided, however this information was not exhaustive for each year. Upon DOE's request, this carbon-related information is completed for the years used in the calculations in the revised spreadsheet. The PDD is also revised accordingly. The footnotes have been revised accordingly.	Inventory Report that is submitted to UNFCCC. Footnote 5 and footnote 12 does still not work. The selection of cohort of power plants is clarified. The detailed information of VER project is included to the calculation sheet. Footnote 5 and 12 are not available; hence, <u>CAR 10 is not closed.</u> <u>Review 2 (22/04/2013):</u> Footnotes 5 and 12 have been revised. Hence, CAR 10 is closed.
CAR 11 The monitoring plan (data and parameters fixed ex ante) does not include all data and parameters fixed ex ante such as $FC_{i,y}$ required by the applied methodology /11/ and baseline tool /13/. Please ensure that all necessary parameters are included.	B.6.1.4	According to ACM0002, v.13.0.0, "The use of fossil fuels for the back up or emergency purposes (e.g. diesel generators) can be neglected" for project emissions resulting from fossil fuel combustion. Therefore, $FC_{i,y}$ is not included in the monitoring plan. However, upon DOE's request TEG_y (Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads, in year y) is added to the monitoring plan in the revised PDD. TEG_y is excluded from the monitoring plan.	<u>Review 1 (11/03/2013):</u> There is a confusion, which should be clarified. The requested parameter is related with the "data and parameters fixed ex ante". However, the change is done in the "Data and parameters to be monitored". Also, the included parameter (TEG_y) is applicable to hydro power projects. Actually, the requested parameter ($FC_{i,y}$) is already given under Section B.6.2 of the PDD as "Fuel consumption". Even the description of parameter is not completely in line with the tool, it is acceptable. After TEG_y is excluded from monitoring plan, the corrective action request can be closed. <u>Hence, CAR 11 is not closed.</u>

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			<u>Review 1 (23/04/2013):</u> TEGy is excluded from monitoring plan; <u>hence, CAR 11 is closed.</u>
CAR 12 The Sustainability Monitoring Plan includes future target for each GS indicator as explained below: – <i>Air quality</i>: SO₂ and NO_x emission reduction corresponding to annual generation. The net electricity generation of 2010 could not be justified since the reference (footnote 11) link does not run. – <i>Water quality and quantity</i>: Cooling water discharge prevented is monitored monthly by calculation. The net electricity generation of 2010 could not be justified since the reference (footnote 14) link does not run. – <i>Other pollutants</i>: It is mentioned in the GS Passport that solid waste caused from daily operation will be disposed at the Gelibolu landfill. Please clarify how the wastes will be transported to landfill area. It is mentioned in the GS Passport that waste oil will be stored on site properly and will be collected on site and disposed by licensed companies according to legal requirements. Please refer to CAR 9. – <i>Access to affordable and clean energy services</i>: The Project is expected to save fossil fuel which corresponds to annual electricity generation. The current situation could not be justified since the reference (footnote 8) does not run. – <i>Balance of payments and investment</i>: Saving	B.6.3.3	– <i>Air quality</i>: The footnote has been revised. – <i>Water quality and quantity</i>: The footnote has been revised. – <i>Other pollutants</i>: The document concerning the waste management has been provided to the DOE (Annex 28). – <i>Access to affordable and clean energy services</i>: The footnote has been revised. – <i>Balance of payments and investment</i>: The footnote has been revised. – <i>Air quality</i>: The footnote link is functional (currently footnote 18 in the GS Passport) – <i>Other pollutants</i>: The GS Passport is revised accordingly. Answer to Review 2: The revised passport has been provided to the DOE.	<u>Review 1 (28/02/2013):</u> – <i>Air Quality</i>: The footnote 11 still does not work. – <i>Water Quality and Quantity</i>: The footnote 14 has been revised and the legal limit for cooling water discharge from thermal power plants is 35°C has been confirmed. – <i>Other Pollutants</i>: The document of Waste Disposed Classes /53/ is provided to the DOE. According to the document, solid wastes will be stored in 5 trash containers in the work site and it will be disposed by Balabancik Municipality. However, in the PDD it is still mentioned that solid waste from daily operations will be disposed of at Gelibolu Landfill. – <i>Access to affordable and clean energy services</i>: The footnote 15 has been revised. – <i>Balance of payments and investment</i>: The footnote 16 has been revised. <u>Hence, CAR 12 is not closed.</u> <u>Review 2 (22/04/2013):</u> Revised Passport does not provided to the Validation team. <u>Hence, CAR 12 is not closed.</u> <u>Review 3 (29/04/2013):</u> Revised Passport has been provided to the

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Validation conclusion
on natural gas imports which correspond to annual electricity generation. The current situation could not be justified since the reference (footnote 9) does not run.			Validation team. It is corrected that the solid waste from daily operations will be disposed properly. Hence, CAR 9 is closed.
CR 1 As confirmed during on site visit, the project is located within boundaries of Çanakkale and Tekirdağ Province of Turkey. However, the location of the project activity is given as Çanakkale Province, Gelibolu. Please clarify. The latitude and longitude of the wind turbines are presented clearly in the PDD /1/ which is in line with the amendment Generation License /23/. However, it has been found out during the on-site visit that, the coordinate of Turbine no.1 has been changed due to archaeological findings. Please provide the updated Generation License and revise PDD if necessary.	A.4.1	The PDD and the GS Passport have been revised such that the location is corrected. The PP has applied for an amendment of the generation license. The updated generation license has not been issued yet. The application for the amendment has been provided to the DOE (Annex 19).	<u>Review 1 (04/03/2013):</u> The location of the project is revised as Canakkale and Tekirdag Provinces, Turkey in the PDD /1/ and Passport /2/. Amendment Application of the License that is mentioned that the coordinate of Turbine no.1 has been changed due to archaeological findings is provided to DOE. <u>Hence, CR 1 is closed.</u>
CR 2 The PDD version 1.1 /1/ does not mention whether the project involve other emission sources not foreseen by the methodology, which contribute by more than 1% (e.g. back up diesel generators).	B.2.5	The PDD is revised such that it now mentions that the Project does not include any other emission source that contributes by more than 1%. Please note that according to ACM0002, v.13.0.0, project emissions from fossil fuel combustion by back up diesel generators are neglected.	<u>Review 1 (04/03/2013):</u> It is mentioned in the revised PDD /1/ that the project does not include any other emission source that contributes by more than 1%. <u>Hence, CR 2 is closed.</u>
CR 3 Through a direct review of the PDD /1/, it could be verified that the financial indicator used is the pre-tax project IRR. The choice of this parameter is justified and is a frequently used financial indicator for investment analysis. However, the PDD does not clearly state whether this is the nominal or real project IRR.	B.4.4.2	The PDD is revised such that it now specifically states nominal IRR. The project IRR that has been calculated is the real IRR of the Project. The PDD has been revised accordingly.	<u>Review 1 (11/03/2013):</u> It could be verified by reference to the revised PDD that the PDD now states that the nominal project IRR has been calculated. However, the nature of the projected revenue and cost streams make us doubt this is correct. The PP is required to assess whether the statement that the nominal project IRR has been calculated is true. <u>Hence, CR 3 is not closed.</u>

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Validation conclusion
			<u>Review 2 (28/04/2013):</u> It could be verified by reference to the revised PDD that the PDD now states that the real project IRR has been calculated. This is correct. Hence, CR 3 is closed.
CR 4 The input values used in the investment analysis are common in the market and are not overly optimistic and pessimistic vis-à-vis common values for windparks in Turkey. However, no comprehensive list of input values and sources including page numbers has been provided by the PP.	B.4.4.5 B.4.4.6	In the spreadsheet, cells, sources and references to input values have been provided as mouse-over comments. Furthermore, input values provided in the spreadsheet can transparently be followed up with the formulas in the cells. More details are added to the updated spreadsheet, including page numbers.	<u>Review 1 (11/03/2013):</u> It could be verified that the input values have been well documented. Hence, CR 4 is closed.
CR 5 The plant load factor is stated in the investment analysis spreadsheet, but the source of the value used has not been stated so that the appropriateness of the value used cannot be assessed.	B.4.4.7	Please note that in the worksheet "investment analysis spreadsheet", the parameter "capacity factor" has been calculated which can be traced back transparently with the formulae in the cells, which is found as; 112,000 MWh / (38.5 MW x 365 x 24)	<u>Review 1 (11/03/2013):</u> The explanation was found acceptable. Hence, CR 5 is closed.
CR 6 Three parameters have been varied in the sensitivity analysis: electricity prices, capital investment and O&M costs. However, no formal justification has been provided for the selection of these variables for variation.	B.4.4.12	According to "Guidelines On The Assessment Of Investment Analysis", paragraph 20, only variables that constitute more than 20% of either total project costs or total project revenues should be subjected to sensitivity analysis. Only electricity prices, capital investment and O&M costs are the parameters that influence cash flow by more than 20%. This description is added to the updated PDD.	<u>Review 1 (11/03/2013):</u> It could be verified that the explanation for the selection of the parameters to be varied in the sensitivity analysis is correct. Hence, CR 6 is closed.
CR 7 The key parameters have not been varied to equalize the calculated financial indicator with the benchmark.	B.4.4.2	Using the Excel Solver function, those values that make the Project IRR=WACC are calculated. These values are added to the PDD for sensitivity discussion. The percentage changes relative to the baseline have been added to the PDD.	<u>Review 1 (11/03/2013):</u> Switching values have been calculated, but have not been expressed as percentage changes relative to the baseline, which is customary to retain comparability with the standard sensitivity analysis. Hence, CR 7 is not closed.

Corrective action and/ or clarification requests	Reference to Table 1	Response by project participants	Validation conclusion
			<u>Review 2 (28/04/2013):</u> By review of the revised PDD it could be verified that switching values have been calculated and expressed as percentage changes relative to the baseline. Hence, CR 7 is closed.
CR 8 It has been explained by the PP that the main subcontractor of the project owner (Bektas Insaat) reports construction activities daily to the project owner. Also, health and safety engineer prepares daily health and safety report. During on site visit, the reports were not available. Please provide a sample of reports. It has been mentioned by the PP during on site visit that all employees hired for construction period attends Health and Safety Training, However, the training records could not been provided.	B.4.7.8	A sample report regarding the daily activities of the subcontractor has been provided to the DOE. The training records have been provided to the DOE.	<u>Review 1 (04/03/2013):</u> A daily sample report of 03/09/2012 /51/ has been provided to the DOE. Also "Occupational Health and Safety" training record of 05/10/2012 is provided to DOE. According to the training record /52/, 11 employees are trained by Fina Energy. Hence, CR 8 is closed.
CR 9 In water quality and quantity, "Proportion of the population using improved drinking water sources" is defined as Target 7.10 which does not match with the MDG categories.	B.4.8.1	This indicator is changed to as 7.8. The Passport is revised accordingly.	<u>Review 1 (04/03/2013):</u> In water quality and quantity, "Proportion of the population using improved drinking water sources" is revised as Target 7.8 that is line with the MDG categories. Hence, CR 9 is closed.
CR 10 The justification for all indicators is presented in the GS Passport /2/. The references are mainly based on official web site. The reference given for "access to affordable and clean energy services" (footnote 8) and "balance of payments and investment" (footnote 9) does not run.	B.4.8.2	The footnotes have been revised.	<u>Review 1 (04/03/2013):</u> The reference given for "access to affordable and clean energy services" (now footnote 15) and "balance of payments and investment" (now footnote 16) has been revised. Hence, CR 10 is closed.
CR 11 As per the GS Toolkit /8/ the baseline situation	B.4.8.3	Please note that the Technology transfer and technological self-reliance" parameter is not	<u>Review 1 (04/03/2013):</u> As per the GS Toolkit /8/, the baseline situation

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and the aimed situation in project must be described briefly for each parameter. There is no explanation for “Quantitative employment and income generation” and “Technology transfer and technological self-reliance” parameters.		included in the monitoring plan. The Passport is revised accordingly. Based on the discussions with the DOE, the Passport has not been changed.	and the aimed situation in project must be described briefly for each parameter. It is not related with the monitoring of parameter. It is related with the scoring. Based on this description of baseline and targeted values of the parameters, each indicator is scored “negative”, “positive” or “neutral”. There is no explanation for “Human and Institutional Capacity” and “Technology transfer and technological self-reliance” parameters. Hence, CR 11 is not closed. <u>Review 1 (04/03/2013):</u> The discussions are acceptable, hence; CR 11 is closed.
CR 12 As per the GS Local Stakeholder Consultation Report Review Feedback of 22/11/2012 /45/ (FAR 4), the PP is requested to consider promotion of replanting activities in the vicinity of the project by the local authority or the project owner and ensure erosion control. It has been seen during on site visit that the area of the project is covered with sandstone. Also, PP has mentioned that soil investigation report has been prepared. Please justify by providing objective evidence that the erosion control is ensured.	B.4.8.3	An expert study on the geotechnical assessment of the project site has been carried out by a third party. The preliminary report has been provided to the DOE (Annex 25). The report suggests that no ground instability is expected.	<u>Review 1 (04/03/2013):</u> Preliminary Report for Geotechnical Assessment /50/ is provided to the DOE. It is explained that landslide, living, swelling, blistering ground instability is not expected for the turbine foundations. <u>Hence, CR 12 is closed.</u>
CR 13 “Çanakkale Governorship Environment and Urbanization Directorate” have issued a Certificate of EIA Exemption dated 26/01/2012 /29/ based on Preliminary EIA Report for 33 wind turbines with a 33 MW installed capacity. After the project design has changed. Please clarify that the Certificate of EIA Exemption is still valid.	D.1.3	The document from “Çanakkale Governorship Environment and Urbanization Directorate” stating that the EIA exemption is still valid with the current coordinates has been provided to the DOE (Annex 20).	<u>Review 1 (04/03/2013):</u> According to the EIA Exemption Revision /49/, it is confirmed that the Certificate of EIA Exemption is still valid. <u>Hence, CR 13 is closed.</u>

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CR 14 The following tools are applied: - Tool for the demonstration and assessment of additionality, version 06.0.0 /12/ - Tool to calculate the emission factor for an electricity system, version 02.2.1 /13/ However, it is not the latest version for “Tool for the demonstration and assessment of additionality”. Please update the version of the tool.	B.1.2	The “Tool for the demonstration and assessment of additionality” version 06.0.0 is valid as of the PDD submission date to the DOE (27.09.2012) and the GS. The tool version 07.0.0 has been published in November 2012, which is after the first submission date of the PDD. Therefore the used version should be considered valid. The tool version has been revised in the PDD.	<u>Review 1 (04/03/2013):</u> The tool version 07.0.0 has been published in November 2012 and the documents have been provided on 27/09/2012. However, the version 06.0.0 is amended and on 13/09/2012 for “Tool for the demonstration and assessment of additionality”, version 06.1.0 is available. When the version of the tool is amended, the latest amendment shall be applied. <u>Hence, CR 14 is not closed.</u> <u>Review 2 (23/04/2013):</u> The PDD has been revised for “Tool for the demonstration and assessment of additionality” as version 06.1.0. <u>Hence, CR 14 is closed.</u>
CR 15 The starting date of the project activity is defined as 28/02/2012 in the PDD version 1.1 /1/ which is the date of the electro mechanical agreement /25/ . The project starting date is in line with the glossary /15/ since electro mechanical agreement is the first real action. However, in Prior Consideration of Carbon Finance, it is mentioned that the starting date of the project activity is 2. Please clarify.	B.4.3.1	The starting date in Prior Consideration of Carbon Finance has been revised to 28.02.2012.	<u>Review 1 (04/03/2013):</u> It is confirmed that the starting date in Prior Consideration of Carbon Finance has been revised. <u>Hence, CR 15 is closed.</u>