



DAGBASI HYDROELECTRIC POWER PLANT


1ST VERIFICATION REPORT



Document Prepared by Re Carbon Gözetim Denetim ve Belgelendirme Ltd. Şti.

Project Title	Dagbasi Hydroelectric Power Plant
Version	02
Report ID	875

Report Title	Dagbasi Hydroelectric Power Plant <i>1st Verification Report</i>
Client	Alperen Elektrik Üretim A.Ş.
Pages	92
Date of Issue	19/09/2022
Prepared By	Re Carbon Gözetim Denetim ve Belgelendirme Ltd. Şti.

Contact	Address: Prof. Dr. Aziz Sancar Cad. No: 27/6, 06690 Çankaya / Ankara / TURKEY Tel.: 0090-312-287 51 22 Fax: 0090-312-287 33 73 email: info@re-carbon.net Website: www.re-carbon.net	
Approved By	Mr. Rohit BADAYA Technical Reviewer	Ms. Esin TUNALI Certification Manager
		
Work Carried Out By	Verification Team Leader	Verification Team Members
	Mr. Sandeep KANDA	Ms. Öykü YAKUPOĞLU

Summary:

The project includes the installation of a runoff river hydroelectric power plant (HEPP) with an installed capacity of 10.756 MWm / 10.433 MWe and is located in the province of Mersin, Anamur district in the Mediterranean Region in Turkey. The purpose of the project activity is to generate electricity and supply it into the national grid. The project activity reduces greenhouse gas (GHG) emissions that would have otherwise occurred in the absence of the project activity by avoiding electricity generation from fossil fuel sources and it includes three horizontal axis Francis turbines with the installed capacity of 3.585 MWm / 3.477 MWe each, i.e. 10.756 MWm / 10.433 MWe total installed capacity.

The scope of the verification is the independent and objective review of the monitored GHG reductions. The verification activity is based on the validated and registered PD version 8.0 and dated 23/06/2014.

The project activity and the monitoring report are assessed against the requirements of the approved consolidated baseline and monitoring Methodology "AMS-I.D.: "Grid Connected Renewable Electricity Generation", Version 17.0 and VCS version 4.3.

The only purpose of the verification and certification is its usage during the issuance process as part of the VCS project cycle.

During this verification 31 Corrective Action Requests (CARs) and 03 CLs were raised all of which were resolved by either revising the Monitoring Report or by sending objective evidence to the verification team. There hasn't been any FARs issued during the verification process.

Re Carbon Ltd. hereby confirms that the level of assurance of this verification report is reasonable, with respect to material errors, omissions and misrepresentations. To guarantee this level of assurance all data that is used in the GHG emission reduction calculations have been reviewed without any sampling.

Re Carbon Ltd. also confirms the following based on the results of document review for the period between 11/04/2014 and 10/04/2020:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2014	4,050	0	0	4,050
2015	9,914	0	0	9,914
2016	6,407	0	0	6,407
2017	9,251	0	0	9,251
2018	8,354	0	0	8,354
2019	14,241	0	0	14,241
2020	5,626	0	0	5,626
Total	57,843	0	0	57,843

CONTENTS

1	Introduction	5
1.1	Objective.....	5
1.2	Scope and Criteria	5
1.3	Level of Assurance.....	5
1.4	Summary Description of the Project	6
2	Verification Process.....	7
2.1	Method and Criteria.....	7
2.2	Document Review	7
2.3	Interviews	11
2.4	Site Inspections.....	12
2.5	Resolution of Findings	13
2.6	Eligibility for Validation Activities	18
3	Validation Findings.....	19
3.1	Participation under Other GHG Programs	19
3.2	Methodology Deviations.....	19
3.3	Project Description Deviations.....	19
3.4	Grouped Project	19
4	Verification Findings.....	20
4.1	Project Implementation Status	20
4.2	Safeguards	22
4.3	AFOLU-Specific Safeguards	23
4.4	Accuracy of GHG Emission Reduction and Removal Calculations	23
4.5	Quality of Evidence to Determine GHG Emission Reductions and Removals	26
4.6	Non-Permanence Risk Analysis.....	27
5	Verification conclusion	28
	APPENDIX 1: VERIFICATION PROTOCOL	30
	APPENDIX 2: VERIFICATION TEAM AND ITR COMPETENCE	89
	Appendix 2-1: Appointment Certificates	90

1 INTRODUCTION

1.1 Objective

Re Carbon Ltd. was appointed by “Alperen Elektrik Üretim A.Ş.” to perform the 1st verification of the “Dagbasi Hydroelectric Power Plant” through a contract, dated 12/05/2022. The objective of this verification activity was to assess, with objective evidence:

- if the monitoring report version 1.4 dated “16/09/2022” conforms with the requirements of the monitoring plan of the registered Project Description (PD) and the approved methodology
- if the project activity conforms with the monitoring report and the registered PD, and
- if the data reported in the monitoring report are complete and transparent.

1.2 Scope and Criteria

The scope of the verification is the independent and objective review of the monitored GHG reductions. The verification activity is based on the validated and registered PD version 8.0 dated, 23/06/2014.

The project activity and the monitoring report are assessed against the requirements of Article 12 of the Kyoto Protocol, CDM Modalities and Procedures as agreed upon in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, “AMS-I.D.: “Grid Connected Renewable Electricity Generation”, Version 17.0, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other related rules, all according to the guidance given in the CDM Validation and Verification Standard for Project Activities version 3.0, CDM Project Standard for Project Activities version 3.0, and VCS version 4.3.

The only purpose of the verification and certification is its usage during the issuance process as a part of the VCS project cycle. Therefore, Re Carbon Ltd. cannot be held liable by any party for decisions made or not made based on the verification and certification opinion, which will go beyond that purpose.

1.3 Level of Assurance

Re Carbon Ltd. hereby confirms that the level of assurance of this verification report is reasonable, with respect to material errors, omissions, and misrepresentations. To guarantee this level of assurance all data that is used in the GHG emission reduction calculations have been reviewed without any sampling.

1.4 Summary Description of the Project

Dagbasi Hydroelectric Power Plant is operated by Alperen Elektrik Üretim A.Ş. The project activity is located in the province of Mersin, Anamur district in the Mediterranean Region in Turkey. There are three horizontal axis Francis turbines on the site. The total installed capacity is 10.756 MWm/10.433 MWe (3 X 3.585/3.477 MWe). The technical description of the project activity is as follows:

Table 1: Technical specifications of the project

Project Main Characteristics		Powerhouse	
Type	Run-of-river	Type	Above Ground
Gross Head	126.10 m	Width	17.7 m
Design Discharge	9.50 m ³ /s	Length	35.6 m
Total Installed Power	10.756 MW	Height	10.3 m
Power Generation	38.446 GWh/year	Tailwater Elevation	383.5 m
Weir, Water Intake Structure		Generator	
Type	Concrete Body	Number of Generators	3
Elevation at Crest	510.0 m	Nominal Voltage	6.3 kV (+/- 5%)
Thailweg Elevation	502.0 m	Frequency	50 hz
Height from River Bed	8.0 m	Synchronic Rotation Freq.	750 rpm
Length of Weir	10.0 m		
Water Intake	Left Side		
Water Intake Dimension	3x2.5 m		
Channel		Turbine	
Type	Box	Type	Horizontal Axis Francis
Gradient	0.0006	Installed Power	3 x 3.585 MW
Bottom Width	3.0 m	Rotation Frequency	750 rpm
Length	328.8 m		
Headpond and Settling Basin		Transmission Line	
Length	30.3 m	Voltage	36 kV
Width	5.0 m	Connection Point	Otluca HEPP
Number of Span	2	Length	6.0 km
Headpond Width	10.0 m		
Headpond Length	32.0 m		
Headpond Height	13.5 m		
Headpond Elevation	509.60 m		
Energy Tunnel		Powerhouse Access Tunnel	
Type	Horse Shoe	Type	Modified Horse Shoe
Length	1306.8 m	Length	258.5 m
Diameter	3.3 m	Dimensions	4.6 (h) x 4.0 m
Slope	0.095		
Penstock		Weir Access Tunnel	
Type	Inside Tunnel	Type	Modified Horse Shoe
Diameter	2.4 m	Length	971.5 m
Length	80.0 m	Dimensions	4.2 (h) x 4.0 m
Branch	3		
Branch Diameter	1.2 m		

The start date of the project activity is 11/04/2014 which is the date when the project is commissioned and the electricity was first supplied to the grid as verified through the provisional acceptance protocol and the first crediting period is from 11/04/2014 until 10/04/2024 with two times renewable crediting period of 10 years. The initial monitoring period is from 11/04/2014 to 10/04/2020.

2 VERIFICATION PROCESS

2.1 Method and Criteria

Re Carbon Ltd. was appointed by “Alperen Elektrik Üretim A.Ş.” to perform the 1st annual verification of the “Dagbasi Hydroelectric Power Plant” through a contract, dated 12/05/2022. The objective of this verification activity is to assess, with objective evidence:

- if the monitoring report version 1.4 dated “16/09/2022” conforms with the requirements of the monitoring plan of the registered PD and the approved methodology
- if the project activity conforms with the monitoring report and the registered PD, and
- if the data reported in the monitoring report are complete and transparent.

The scope of the verification is the independent and objective review of the monitored GHG reductions. The verification activity is based on the validated and registered PD version 8.0 dated 23/06/2014.

The project activity and the monitoring report are assessed against the requirements of Article 12 of the Kyoto Protocol, CDM Modalities and Procedures as agreed upon in the Marrakech Accords under decision 3/CMP.1., the annexes to this decision, “AMS-I.D.: “Grid Connected Renewable Electricity Generation”, Version 17.0, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other related rules, all according to the guidance given in the CDM Validation and Verification Standard for project activities version 3.0, CDM Project Standard for Project Activities version 3.0, and VCS version 4.3.

The only purpose of the verification and certification is its usage during the issuance process as a part of the VCS project cycle. Therefore, Re Carbon Ltd. cannot be held liable by any party for decisions made or not made based on the verification and certification opinion, which will go beyond that purpose.

2.2 Document Review

The basis for the verification activity is the monitoring report version 1.0, dated 06/05/2022 which was submitted to the verification team on the same date. This monitoring report was revised several times due to issued CARs and CLs, with version 1.4, dated 16/09/2022 being the final version. The monitoring report and the monitoring activities were assessed against the registered PD, version 8.0, dated 23/06/2014, the “AMS-I.D.: “Grid Connected Renewable Electricity Generation”, Version 17.0, the relevant VCS rules and regulations, CDM Validation and Verification Standard for project activities version 3.0, CDM Project Standard for project activities version 3.0, and the final validation report version 02 dated 02/07/2014.

The following actions were involved in the desk review:

- A review of the data and information presented to verify their completeness
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions

The list of the documents which were reviewed during the verification period is given in Table 2-1 below:

Table 2-1: List of documents reviewed

Document Number	Document Name	Version	Date (dd/mm/yyyy)
D01	Registered PD	8.0	23/06/2014
D02	Final Validation Report	02	02/07/2014
D03	AMS-I.D.: “Grid Connected Renewable Electricity Generation”	17.0	-
D04	Verification Service Agreement	-	12/05/2022
D05	Monitoring Report	1.0	06/05/2022
D06	Monitoring Report	1.1	20/08/2022
D07	Monitoring Report	1.2	25/08/2022
D08	Monitoring Report	1.3	06/09/2022
D09	ER Calculation Excel Sheet	1.0	06/05/2022
D10	ER Calculation Excel Sheet	1.1	20/08/2022
D11	ER Calculation Excel Sheet	1.2	25/08/2022
D12	ER Calculation Excel Sheet	1.3	06/09/2022
D13	VCS Standard	4.3	22/06/2022
D14	VCS Program Guide	4.2	22/06/2022
D15	EIA Not Necessary Decision	-	12/01/2011
D16	Electricity Generation Licence (Initial Issuance and Last Amendment)	-	12/05/2011 11/07/2012
D17	TEIAS Meter Reading Forms	-	01/2015 – 04/2020
D18	TEIAS Invoices	-	04/2014 – 12/2014
D19	EPIAS Screenshots		04/2014 – 04/2020
D20	Meters Test Reports	-	13/12/2015 11/12/2016 11/10/2018 12/11/2020
D21	Electricity Meters Photos	-	-
D22	Waste Water Storage Tank Photos	-	-

Document Number	Document Name	Version	Date (dd/mm/yyyy)
D23	Hazardous Waste Storage Area Photos	-	-
D24	Domestic Waste Storage Area Photos	-	-
D25	Hazardous Waste Transfer and Disposal Records	-	2019 2021
D26	Wastewater Disposal Records	-	11/08/2016 07/07/2017 16/12/2019
D27	Domestic Waste Disposal Records	-	30/10/2015 29/02/2016 31/03/2017 27/04/2018 31/05/2019 31/03/2020
D28	Fish Passage Photos	-	-
D29	Site Photos	-	05/08/2022
D30	Official Signed Lifeline Water Records	-	10/10/2018 24/12/2019
D31	Turbine and Generator Nameplates	-	-
D32	Signed Letter by the Dibek Village Head (Mukhtar) (About the Contact Details of PP Relevant Staff In case of Any Complaint)	-	23/08/2022
D33	Letter by the PP (About Double Counting and Renewable Energy Certification (REC))	-	12/08/2022
D34	Provisional Acceptance Protocol	-	11/04/2014
D35	Training Records	-	16/02/2022 16/03/2022
D36	Social Security Records for PP Site Employees	-	-
D37	Turbine Specification Document	-	-
D38	Monitoring Report	1.4	16/09/2022
D39	ER Calculation Excel Sheet	1.4	16/09/2022

2.3 Interviews

During the verification period, follow-up interviews were executed by the verification team to further analyze the correctness and accurateness of the information provided.

The list of individuals who were interviewed during the verification process is given in Table 2-2 below:

Table 2-2: List of individuals interviewed

Reference Number	Means of Interview ¹	Full Name	Title	Organization
I01	SV	Ümmü Ehliz	Villager	Dibek Village
I02	SV	Hüseyin Ehliz	Villager	Dibek Village
I03	SV	Nurettin Doğru	Villager	Dibek Village
I04	SV	Nazım Saydam	Mukhtar	Dibek Village
I05	SV	Mehmet Uğur	Plant Manager	Alperen Elektrik A.Ş.
I06	SV	Aydın Çınar	Worker	Alperen Elektrik A.Ş.
I07	SV	Kerem Demir	Control Operator	Alperen Elektrik A.Ş.
I08	SV	Ömer Ali Çetin	Control Operator	Alperen Elektrik A.Ş.
I09	SV	İncigül Erdoğan	Consultant	Kilittaşı Ltd.
I10	SV	Ersöz Erdoğan	Consultant	Kilittaşı Ltd.

¹ SV: Site visit; T: Telephone; E: E-mail; RA: Remote Assessment

2.4 Site Inspections

As a part of the verification activities a physical site visit was executed to the project activity's location, details of which can be seen in Table 2-3 below:

Table 2-3: Site visit details

Date	05/08/2022	
Location	Anamur, Mersin	
Participant	Company Name	Role in the Organization / Role in the Site Visit
Ümmü Ehliz	Dibek Village	Villager
Hüseyin Ehliz	Dibek Village	Villager
Nurettin Doğru	Dibek Village	Villager
Nazım Saydam	Dibek Village	Mukhtar
Mehmet Uğur	Alperen Elektrik A.Ş.	Plant Manager
Aydın Çınar	Alperen Elektrik A.Ş.	Worker
Kerem Demir	Alperen Elektrik A.Ş.	Control Operator
Ömer Ali Çetin	Alperen Elektrik A.Ş.	Control Operator
İncigül Erdoğan	Kilittaşı Ltd.	Consultant
Ersöz Erdoğan	Kilittaşı Ltd.	Consultant
Öykü Yakupoğlu	Re Carbon Ltd.	Verifier
Points Verified	Source of Information	
Implementation and operation of the proposed VCS project activity as per the registered PD	Document review, on site visit and interviews with the PP representatives and local stakeholders from Dibek Village	
Review of information flows for generating, aggregating, and reporting the monitoring parameters	Document review, on site visit and interviews with the PP representatives and local stakeholders from Dibek Village	
Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in	Interviews with the PP representatives	

accordance with the monitoring plan in the PD	
Cross-check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources	Document review and on site visit
Check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PD and the selected methodology	Document review, on site visit and interviews with the PP representatives and local stakeholders from Dibek Village
Review of calculations and assumptions made in determining the GHG data and emission reductions	Document review
Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters	Document review, interviews with the PP representatives and local stakeholders from Dibek Village

2.5 Resolution of Findings

The verification of this VCS project activity includes the following steps:

- Assessment of the conformity of the actual project activity and its operation with the registered PD, dated 23/06/2014 version 8.0.
- A physical site visit was executed on 05/08/2022 in order to assess whether all physical features of the project activity proposed in the registered PD are in place and that the Project proponent(s) operated the project activity in line with the registered PD.
- Assessment of the compliance of the monitoring plan with the monitoring methodology “AMS-I.D.: “Grid Connected Renewable Electricity Generation”, Version 17.0
- Assessment of the compliance of monitoring with the monitoring plan
- Assessment of data and calculation of greenhouse gas emission reductions
- Issuance of the verification report
- Independent technical review
- Approval of the verification report and request of issuance

The Verification Timeframe for this project activity is given in Table 2-4 below:

Table 2-4: Verification Timeframe

Activity	Timeline		Total Days
	From	To	
Desk Review	05/08/2022	19/09/2022	46
Review of the MR version 01	05/08/2022	08/08/2022	4
Site Visit	05/08/2022	05/08/2022	1
Issuance of the Verification Protocol version 01	08/08/2022	08/08/2022	1
Review of PPs Initial Set of Responses	20/08/2022	23/08/2022	4
Issuance of the Verification Protocol version 02	23/08/2022	23/08/2022	1
Review of PPs Second Loop Responses	25/08/2022	06/09/2022	13
Issuance of the Verification Protocol version 03	06/09/2022	06/09/2022	1
Review of PPs Third Loop Responses	06/09/2022	06/09/2022	1
Closing of all the CARs and CLs	06/09/2022	06/09/2022	1
Issuance of the Verification Report version 01	06/09/2022	08/09/2022	3
ITR Process	08/09/2022	13/09/2022	6
Issuance of the Verification Report version 02	13/09/2022	19/09/2022	7
Submission for Final Approval	19/09/2022	19/09/2022	1

The Verification Protocol is used for the assessment of each requirement during the execution of verification activities and is given in Appendix-1 of this verification report.

The Verification Protocol consists of two tables:

- Table 1 (VCS Monitoring Report (MR) Form, VCS and CDM Verification Requirements)
- Table 2 (Resolution of Corrective Action, Forward Action, and Clarification Requests)

The usage description of Table-1 in the Verification Protocol is explained in Table 2-5 below:

Table 2-5: Explanation about Table-1 in Verification Protocol

Question	Reference	MoV*	Findings, comments, references and document sources	Draft & Final Conclusion
The requirements related with the VCS monitoring report and VCS and CDM verification Standards and/ or Procedures	Gives reference to the legislation or documents where the relevant requirement is found	Explains how conformance with question is investigated. Examples of means of verification are Document Review (DR), Interview (I) and Not Applicable (NA)	Is used to elaborate and discuss the question and/or conformance to the question by giving related references and document sources based on which the finding is issued or evidence is checked	Either acceptable based on the evidence provided (OK), non-compliance with the requirement (CAR), further clarification (CL) due to insufficient, unclear or not transparent information, forward action request (FAR) that needs to be solved during the next periodic verification

The usage description of Table-2 in the Verification Protocol is explained in Table 2-6 below:

Table 2-6: Explanation about Table-2 in Verification Protocol

Draft Report Clarifications, Forward Action and Corrective Action Requests by Verification Team	Ref. to Questions in Table-1	Summary of Project proponents' Response	Verification Team Conclusion
The all CL, FAR and CARs determined during the draft verification report should be listed here	Gives reference to the checklist questions in Table-1 of Verification Protocol	Is used to summarize the responses by Project proponents regarding the non-conformities	Is used to summarize the responses by verification and their conclusions

The Verification Protocol is filled out by the verification team in line with the descriptions above; all CARs, CLs and FARs are listed in a transparent and clear manner.

During the verification process, a Verification Protocol (attached as Appendix 1 to this verification report) was used to submit the findings to the Project proponent(s).

In line with Re Carbon Ltd.'s internal terminology and VCS Standard version 4.3, the team reports the non-conformities in forms of Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs). When and for which type of non-conformities CARs, CLs and FARs are issued is explained below:

The verification team raises a **CAR** if one of the following occurs:

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

The verification team raises a **CL** if information is insufficient, not transparent or not clear enough to determine whether the applicable CDM and/or VCS requirements have been met.

The verification team raises a **FAR** during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period.

According to these principles a total of 31 CARs, 03 CLs and 00 FARs were issued, all of which are listed in the Verification Protocol.

The appointment process of the verification team considers the technical area(s), sectoral scope(s), and relevant host country experience, required amongst team members for the verification of the emission reductions, achieved by the project activity in the relevant monitoring period for this verification. The relevant VCS verification and previous ITR experiences are also assessed during the selection of the team members and the Independent Technical Reviewer (ITR), respectively. The verification team and ITR were assigned to this verification activity on 27/04/2022, taking all the above factors into consideration, and as a result of the contract review process.

The verification team and ITR details are given in Table 2-7 below:

Table 2-7: Verification team and ITR details

Name	Role	Host Country Experience	Scope Coverage	Technical Expertise	Involvement*
Mr. Sandeep KANDA	Team Leader	☒	☒	☒	A, DR, R
Ms. Öykü YAKUPOĞLU	Verifier	☒	☒	☒	A, DR, SV, R
Mr. Rohit BADAYA	ITR	☒	☒	☒	ITR

* Explanations for the abbreviations used for involvement types are as follows:

A : Administrative

DR : Desk Review

SV : Site Visit

RA : Remote Assessment

R : Reporting

ITR : Independent Technical Review

As a closing step of verification, the final documentation including the verification report and its annexes must undergo an internal quality control by Re Carbon Ltd. This quality control is also referred to as the “Independent Technical Review” process.

The Independent Technical Review is performed by another Team Leader of RE-Carbon Ltd. who was not involved in the verification activities of this specific project activity. When the appointed Team Leader finalizes the Validation Report, the report is sent to the (for this project specifically appointed) Independent Technical Reviewer who reviews not only the verification report itself, but also all supporting documents like emission factor calculations, additionality justifications, relevant excel sheets etc.

Further CLs and CARs may be raised by the Independent Technical Reviewer during this review, in order to cover all the points that may need further clarification.

After all CLs and CARs are closed, the verification report is again reviewed and finally approved by the Team Leader, ITR and the Certification Manager, and the request for issuing is submitted to the Project Developer along with the relevant documents.

2.5.1 Forward Action Requests

The verification team raises a FAR during the verification for actions if the monitoring and reporting require attention and/or adjustment in the next verification period, as explained in Section 2.5.

According to these principles no FAR has been issued during this verification process.

2.6 Eligibility for Validation Activities

Re Carbon Ltd. holds accreditation for the validation and verification activities in scope 1: “Energy Industries – Renewable/Non-renewable Sources” in which the project activity falls into.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project does not participate under any emission trading program and other GHG Programs including renewable energy certificates (RECs) and this is also confirmed by the PP through the signed and sealed letter by PP dated as 12/08/2022.

3.2 Methodology Deviations

N/A (There haven't been any methodology deviations applied).

3.3 Project Description Deviations

All electricity generation and consumption data in emission reductions table are checked with EPIAŞ records (PMUM has been replaced by EPIAS as of 01/09/2015 in Turkey during the monitoring period) as the main source and crosschecked with TEAIS meter reading protocol records as a conservative and correct approach. The main source of data has been defined as EPIAS records since they are the basis for billing.

Re Carbon Ltd. hereby confirms that such a change has no impact on the applicability of the methodology, additionality and the appropriateness of the baseline scenario.

3.4 Grouped Project

The project is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

Compliance of the Project Implementation with the Registered PD:

According to the registered PD, the estimated annual emission reduction is 20,372 tCO₂e and corresponding total estimated amount for the monitoring period is 122,303 tCO₂e. The actual values achieved for the current monitoring period is 57,843 tCO₂e. The actual amount of emission reduction for the current monitoring period is about 52.7% less than the estimated emission reduction amount. The reason of the difference is that water flow values were mistakenly overly estimated/measured during the feasibility stage of the project activity (stated in Appendix II of the MR). Besides that, the difference in the values does not lead to a substantial increment of the ER in this period in relation to the estimates in the registered PD.

The project also contributes to SDG 7 (Affordable and Clean Energy with 109,226.83 MWh net electricity generation), SDG 8 (Decent Work and Economic Growth with 7 employed staff during the recent year of operation period and all are permanent staff) and SDG-13 (Climate Action with achieved emission reduction of 57,843 tCO₂e) during the monitoring period.

The project was commissioned on 11/04/2014 which was verified by the provisional acceptance protocol. The project activity does not consist of more than one site and does not have any phased implementation.

The GHG emission reductions generated by the project are not included in an emission trading program or any other mechanism that includes GHG allowance trading, because of the position of the host country.

The project activity has not received any other form of environmental credits, as there are no such crediting schemes in the host country as declared by the PP.

The only other eligible GHG programs in the host country is Gold Standard and Global Carbon Council (GCC) and the certification program is Renewable Energy Certification (REC), and the project hasn't been listed in any of them, hence Re Carbon Ltd. confirms that the project has not participated or been rejected under any other GHG programs since the validation.

Remaining Issues from Validation or Previous Verifications

There is no FAR from the validation process (v02 dated 02/07/2014).

Compliance of the Monitoring Plan with the Monitoring Methodology

The monitoring plan is in accordance with the approved methodology, AMS-I.D version 17.0, applied by the project activity.

In line with the methodology and the registered PD, the monitored parameters are quantity of net electricity generation supplied by the project plant to the grid ($EG_{\text{facility},y}$), installed capacity of the hydro power plant after the implementation of the project activity (CAP_{PJ}) and area of the reservoir (A_{PJ}) as in below:

- EG_{facility,y}: The quantity of net electricity delivered to the grid has been calculated with the EPIAS (the financial settlement centre of TEIAS) records provided to the PP by TEIAS. The net electricity is measured continuously by one main electricity meter at the grid interface and recorded monthly. There are also one back up electricity meter. That means the electricity generation and consumption values have been determined through the summation of the measured values of the main meter and checked through the back up meter. All readings and billings are done via EPIAS system which is the legal database of the Ministry of Energy and Natural Resources in Turkey. During this verification, all EPIAS and TEIAS meter reading protocol records have been reviewed by the verification team. The project mainly uses its own electricity however during the times when there is no generation, the project imports electricity from the grid. There are also internal reviews of the metered data which is checked by different parties. The EPIAS records are considered as the main source for the net electricity and the values are crosschecked with the Meter Reading Forms.
- CAP_{PJ}: According to the monitoring plan in the registered PD, the installed capacity of the power plant is monitored supplier information on the equipment and the number of turbines. The project has three horizontal axis Francis turbines with the installed capacity of 3.585 MWm / 3.477 MWe each, so it has a total capacity of 10.756 MWm / 10.433 MWe in line with the electricity generation licence. Re Carbon Ltd. hereby confirms that there hasn't been any change regarding the total installed capacity of the project.
- AP_J: According to the monitoring plan in the registered PD, the area of the reservoir is monitored via topographical surveys, maps and satellite pictures. The reservoir area has been checked through the reservoir layout drawing of the project as in the registered PD and the reservoir area is taken as 2,800 m².

All data collected as part of monitoring will be archived electronically by the project owner and be kept at least for 2 years after the end of the last crediting period.

CAR-14, CAR-15 and CAR-16 were issued regarding the monitoring and they had been closed out as detailed in Appendix-1.

Compliance with the Calibration Frequency Requirements for Measuring Instruments:

The net electricity is measured continuously by one main electricity meter at the grid interface and recorded monthly. There is also one back up electricity meter.

The calibrated electricity meters were installed as per the regulations. Although, re-calibration is required after ten years, nevertheless, in case of irregular difference between main and cross-check spare meters, TEIAS (grid company) responsible unit is informed for the intervention. That means, TEIAS is responsible for the calibration and maintenance of the meters. The calibration of the meters is valid for 10 years in line with the relevant legal regulation, the tests for the meters were performed on 13/12/2015, 11/12/2016, 11/10/2018 and 12/11/2020 and those test reports were provided to VVB.

The serial number of the currently available main meter (EMH model and accuracy class is 0.2S) is 4241359 and the back-up meter (EMH model and accuracy class is 0.2S) is 4241360 and these have been verified during the on-site visit. All these meters are bi-directional (meter the energy in two directions – generation and consumption).

CAR-14 was issued regarding the calibration and meter testing and this CAR had been closed as detailed in Appendix-1.

As a result of the reviewed documents, Re Carbon Ltd. hereby confirms that the project is fully implemented according to the description given in the registered PD.

It can also be confirmed through the reviewed documents that all physical features of the project activity including data collecting systems and storage have been implemented in accordance with the registered PD. The project activity is completely operational and the same has been confirmed through the provided evidences including EPIAS records, TEIAS meter reading protocols, electricity meter test protocols and the photos of electricity meters.

4.2 Safeguards

4.2.1 No Net Harm

There hadn't been any observed significant environmental impact of the project activity as indicated in the registered PD and this was also confirmed through the reviewed documents. The EIA Not Necessary Decision dated as 12/01/2011 by Mersin Provincial Directorate of Environment and Urbanization was also provided by the PP.

Besides that, the photos of waste storage areas and the hazardous waste disposal record belongs to 2019 and 2021 and waste water transfer and disposal record dated as 11/08/2016, 07/07/2017 and 16/12/2019 have been provided by the PP. The photographic evidences of fish passage and official signed lifeline water record dated as 10/10/2018 and 24/12/2019 have also been provided.

4.2.2 Local Stakeholder Consultation

There hadn't been any complaint raised by the interviewed local stakeholders during the on site visit as detailed in Section 2.3.

The local stakeholders as stated in the Table 2-2 above were interviewed about the following issues and there hadn't been any complaint by the interviewed local stakeholders during the online site visit:

- Noise due to the project activity
- Impact on the aquatic life where the project had been constructed
- Sufficiency of local employment (The interviewed local stakeholders were pleased about the provided local employment opportunities by the PP)
- Waste management practices implemented by PP

It was also concluded that the grievance mechanism is in place and this was also confirmed by the interviewed local stakeholders during the on site visit. The document showing the contact details of the relevant person within PP with the signature of Dibek Village Mukhtar (Village Head) and dated as 23/08/2022 was also provided to VVB.

Therefore, it could also be concluded that there hasn't been any complaint during the monitoring period in line with the provided records, information by PP and interviews with some local stakeholders.

4.3 AFOLU-Specific Safeguards

N/A (The project is not an AFOLU project).

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

EPIAS records are presented for all months of the monitoring period. All data in emission reductions table are checked with EPIAS records as the main source and crosschecked with TEIAS meter reading protocol records. The net electricity generated during the current monitoring period was as follows in Table 4-1 below:

Table 4-1: Net Electricity Generation

Period	Amount	Compliance Check
11/04/2014 – 31/12/2014	Export to Grid: 7,691.20 MWh Import from Grid: 39.79 MWh Net electricity supplied to grid: 7,651.41 MWh	EPIAS Records
01/01/2015 – 31/12/2015	Export to Grid: 18,759.80 MWh Import from Grid: 38.03 MWh Net electricity supplied to grid: 18,721.77 MWh	EPIAS Records
01/01/2016 – 31/12/2016	Export to Grid: 12,168.52 MWh Import from Grid: 64.25 MWh Net electricity supplied to grid: 12,104.27 MWh	EPIAS Records
01/01/2017 – 31/12/2017	Export to Grid: 17,519.66 MWh Import from Grid: 51.46 MWh Net electricity supplied to grid: 17,468.20 MWh	EPIAS Records
01/01/2018 – 31/12/2018	Export to Grid: 15,817.45 MWh Import from Grid: 39.96 MWh Net electricity supplied to grid: 15,777.49 MWh	EPIAS Records

Period	Amount	Compliance Check
01/01/2019 - 31/12/2019	Export to Grid: 26,905.38 MWh Import from Grid: 23.64 MWh Net electricity supplied to grid: 26,881.74 MWh	EPIAS Records
01/01/2020 - 10/04/2020	Export to Grid: 10,624.05 MWh Import from Grid: 2.10 MWh Net electricity supplied to grid: 10,621.95 MWh	EPIAS Records
Total	Export to Grid: 109,486.06 MWh Import from Grid: 259.23 MWh Net electricity supplied to grid: 109,226.83 MWh	EPIAS Records

Emission factor and data and parameters available before validation are also applied in line with the registered PD and baseline excel sheet for validation.

According to the applied methodology AMS-I.D version 17.0 and the registered PD, the GHG emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y$$

Where:

ER_y = Emission reductions in year y (tCO₂e/yr)

BE_y = Baseline emissions in year y (Tco2e/yr)

PE_y = Project emissions in year y (Tco2e/yr)

According to the applied methodology, for hydropower plants if the power density of the reservoir is higher than 10 W/m², then $PE_y = 0$. The power density of the project is calculated as follows:

$$PD = \frac{Cap_{PJ} - Cap_{BL}}{A_{PJ} - A_{BL}}$$

Where;

PD = Power density of the project activity (W/m²)

Cap_{PJ} = Installed capacity of the hydro power plant after the implementation of the project activity (W)

Cap_{BL} = Installed capacity of the hydro power plant before the implementation of the project activity (W). For new hydro power plants, this value is zero

A_{PJ} = Area of the single or multiple reservoirs measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m²)

A_{BL} = Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m^2). For new reservoirs, this value is zero

The project activity is a green field run-of-river hydropower project, so Cap_{BL} and A_{BL} are equal to zero.

For Dagbasi Hydroelectric Power Plant:

$A_{PJ} = 2,800 \text{ m}^2$ (according to the registered PD and initial verification)

$Cap_{PJ} = 10,433,000 \text{ W}$

The power density is calculated as follows:

$PD = 10,433,000 / 2,800 = 3,726.07 \text{ W/m}^2$

As the power density is higher than 10 W/m^2 , the project emissions of the project are equal to zero. The leakage can be neglected in line with the applied methodology. Therefore, the emission reductions generated during the monitoring period are equal to baseline emissions.

The baseline emissions in the monitoring period are calculated using the following formula:

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

Where;

BE_y = Baseline emissions in year y ($t \text{ CO}_2/y$)

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y (MWh/y)

$EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" ($\text{Tco}_2 / \text{MWh}$)

Since the project is a greenfield renewable power plant:

$EG_{PJ,y} = EG_{facility,y}$ = The amount of net electricity produced and fed into the grid by the project in year y.

Combined margin CO_2 emission factor ($EF_{grid,CM,y}$) is calculated once during the validation of the project activity and is valid throughout the first crediting period of 10 years.

It has been confirmed that the data used for emission reductions are correct. The grid emission factor taken is $0.5299 \text{ tCO}_2 / \text{MWh}$ and the value is same as fixed ex-ante in the registered PD.

It is also confirmed that the methods and formulae used for calculating baseline emissions are in line with the relevant methodology and the registered PD. The net electricity generation is multiplied with the grid emission factor to arrive at the emission reductions value.

According to the registered PD, the estimated emission reduction for this monitoring period would be $122,303 \text{ tCO}_2\text{e}$ corresponding to the monitoring period. However, the project in operation totally reached $57,843 \text{ tCO}_2\text{e}$ in this period.

The vintage break-up of the emission reductions during the current monitoring period was as follows in Table 4-2 below:

Table 4-2: Emission Reductions

Period	Emission reductions (tCO ₂ e)
11/04/2014 – 31/12/2014	4,050
01/01/2015 – 31/12/2015	9,914
01/01/2016 – 31/12/2016	6,407
01/01/2017 – 31/12/2017	9,251
01/01/2018 – 31/12/2018	8,354
01/01/2019 – 29/12/2019	14,241
01/01/2020 – 10/04/2020	5,626

Calculations have been reproduced by VVB and the source data (EPIAS screenshots) are presented by PP as explained above.

Re Carbon Ltd. hereby confirms that the above mentioned electricity generation figures and GHG emission reduction calculations are presented and quantified correctly and are in accordance with the monitoring methodology AMS-I.D version 17.0 and the monitoring plan given in the registered PD.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The GHG emission reductions are a function of the net electricity generated and fed into the grid by the project activity and the combined margin emission factor which is determined during validation for the whole crediting period. According to the validation report version 02 dated 02/07/2014, the combined margin emission factor had been validated and will remain the same for the first crediting period of 10 years as 0.5299 tCO₂/MWh.

The only parameter that needs to be closely verified is the net electricity generation and this value is taken from the monthly TEIAS meter reading protocol records which are along with the EPIAS records are the basis for billing and these records for each month has been submitted to and reviewed. They are recorded and saved automatically by the relevant government authority and there is no base for any option of material information.

Level of materiality is ensured by application of “Guideline on the Application of Materiality in Verifications” version 02. To guarantee this level of assurance, all data that is used in the GHG emission reduction calculations have been reviewed without any sampling.

As a cross check means, TEIAS meter reading protocol records which include the monthly generation and consumption figures of the plant for every month have been reviewed by the verification team.

The electricity meter calibration and test details have been verified and the same is available in the Section 4.2 of the report.

Therefore, Re Carbon Ltd. hereby confirms that the evidence used to determine the GHG emission reductions are sufficient in quantity and appropriate in quality.

4.6 Non-Permanence Risk Analysis

N/A. (The project isn't an AFOLU project).

5 VERIFICATION CONCLUSION

Re Carbon Ltd. performed the 1st verification of VCS “Dagbasi Hydroelectric Power Plant”, a project with the registry reference number “VCS1333” for the period in between 11/04/2014 and 10/04/2020. The scope of the activities covers the verification and certification of GHG emissions reductions, reported in the Monitoring Report Version 1.4, dated 16/09/2022 of “Dagbasi Hydroelectric Power Plant”.

Kilitlasi Engineering Consulting and Construction Co. Ltd. was responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring Plan, as indicated in the final PD. The development and maintenance of records and reporting procedures in accordance with that plan (including the calculation and determination of GHG emission reductions from the project) are under the responsibility of the management of the Project. The development and maintenance of the records and the related monitoring procedures are in accordance with the Monitoring Report Version 1.4.

The verification was performed by a verification team consisting of Sandeep Kanda as the team leader, Öykü Yakupoğlu as the verifier and Rohit Badaya as the ITR” and the project activity was checked against the applicable rules and regulations of CDM including Section I of CDM Modalities and Procedures, the relevant guidance and decisions of the COP/MOP, CDM EB and VCS Organization, CDM Validation and Verification Standard for project activities version 3.0, CDM Project Standard for project activities version 3.0, and VCS version 4.3.

Re Carbon Ltd. hereby confirms that the project activity “Dagbasi Hydroelectric Power Plant” in Turkey is implemented in accordance with the validated and registered PD version 8.0, dated 23/06/2014. The monitoring system is in place and the emission reductions were calculated without material misstatements as per the applied approved methodology (“AMS-I.D.:Grid Connected Renewable Electricity Generation”, Version 17.0).

Re Carbon Ltd. confirms the following based on the results of the document review and the on-site assessment for the period between 11/04/2014 and 10/04/2020:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2014	4,050	0	0	4,050
2015	9,914	0	0	9,914
2016	6,407	0	0	6,407
2017	9,251	0	0	9,251
2018	8,354	0	0	8,354
2019	14,241	0	0	14,241
2020	5,626	0	0	5,626
Total	57,843	0	0	57,843



Sandeep KANDA

Team Leader

19/09/2022



Rohit BADAYA

ITR

19/09/2022



Esin TUNALI

Certification Manager

20/09/2022

APPENDIX 1: VERIFICATION PROTOCOL

Table 1 – (VCS Monitoring Report (MR) Form, VCS and CDM Verification Requirements)

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
Cover Page and General Requirements					
1 Are all items in the box at the bottom of the cover page completed using Arial or Century Gothic 10.5pt, black, regular (non-italic) font?	VCS MR Template Version 4.1	DR	a) Please indicate all items in the MR using regular (non-italic) font (e.g. Section 1.11) and using 10.5pt (e.g. Table 3 in the Section 1.11). b) Please correct the numbering of the sections (e.g. the subsections' numbers of the Section 3.2)	CAR-1	OK
2 Are the followings provided at the cover page in a tabular format?	VCS MR Template Version 4.1	DR	Please see below.		
2.1 Name of the project?	VCS MR Template Version 4.1	DR	This is available as “Dagbasi Hydroelectric Power Plant”.	OK	OK
2.2 Version number of the VCS MR?	VCS MR Template Version 4.1	DR	This is available as 1.0 for the first submission.	OK	OK
2.3 Report ID of the document	VCS MR Template Version 4.1	DR	This is available as “VCS_DagbasiHEPP_MR”.	OK	OK
2.4 The issuance date of the document in DD-Month-YYYY format?	VCS MR Template Version 4.1	DR	This is available as 06/05/2022 for the first submission.	OK	OK
2.5 VCS project database ID, if registered	VCS MR Template Version 4.1	DR	This is available as VCS1333.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
2.6 Monitoring period in DD-Month-YYYY to DD-Month-YYYY format	VCS MR Template Version 4.1	DR	This is available as 11/04/2014 - 31/03/2020.	OK	OK
2.7 Individual or entity that prepared the document?	VCS MR Template Version 4.1	DR	This is available as “Kilittasi Engineering Consulting and Construction Co. Ltd.”.	OK	OK
2.8 Physical address, telephone, email, website?	VCS MR Template Version 4.1	DR	The contact information is available.	OK	OK
3 Is this box available on the title page of the final document?	VCS MR Template Version 4.1	DR	The box is available on the title page.	OK	OK
4 Is there “Table of Contents” in the VCS MR?	VCS MR Template Version 4.1	DR	Please add the page numbers to the MR.	CAR-2	OK
5 Is the VCS MR used as a basis for verification prepared in accordance with the latest template and guidance from the VCS?	VCS MR Template Version 4.1	DR	The latest VCS template has been used but please see CAR-1.	CAR-1	OK
6 Are the VCS MR and other documents required under the VCS Program in English?	VCS Std. Version 4.3	DR	MR and all other required documents are in English except for some legal permit documents since they are in Turkish.	OK	OK
1. PROJECT DETAILS					
1.1. Summary Description of the Implementation Status of Project					

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.1.1. Has a brief summary of the project description provided under Section 1.1 of the MR?	VCS MR Template Version 4.1 CDM-MR-FORM Version 9.0	DR	<ul style="list-style-type: none"> a) Please demonstrate emission reduction values as integers in ER Calculation Excel spreadsheet and use the round-down function for these values. b) Please make the electricity generation values in the ER Calculation Excel sheet compatible with the values of EPIAS systems and establish a proportion where necessary (e.g. April 2014). c) Considering the above corrections, please revise the total electricity generation value and the total amount of emission reductions value throughout the MR and ER Calculation Excel spreadsheet (displaying ERs as integer values). d) Please add the total amount of electricity generation of the current monitoring period in the Section 1.1 of the MR. e) Please revise the electricity generation, consumption, and net values in the ER Calculation Excel spreadsheet to be two digits after the comma. f) Please include estimated and achieved ER comparison calculation in the ER Calculation Excel spreadsheet and MR. g) Please remove the blank pages from ER Calculation Excel spreadsheet. 	CAR-3	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.1.2. Has the purpose of the project activity and the measures taken to reduce greenhouse gas emissions been provided under section 1.1 of the MR?	VCS MR Template Version 4.1 CDM-MR-FORM Version 9.0	DR	Please clearly indicate the purpose of the project activity in the Section 1.1 of the MR.	CAR-4	OK
1.1.3. Has a brief description of the installed technology and equipment been provided under Section 1.1 of the MR?	VCS MR Template Version 4.1 CDM-MR-FORM Version 9.0	DR	Please provide the brief description of the installed technology and equipment including turbine types and models, their brief specifications in the Section 1.1 of the MR.	CAR-5	OK
1.1.4. Has the relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.) been provided under Section 1.1 of the MR?	VCS MR Template Version 4.1 CDM-MR-FORM Version 9.0	DR	The relevant dates for the project activity have been indicated in the Section 1.1 of the MR.	OK	OK
1.1.5. Has the total emissions reductions achieved in this monitoring period been provided under Section 1.1 of the MR?	VCS MR Template Version 4.1 CDM-MR-FORM Version 9.0	DR	Please see CAR-3.	CAR-3	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.2. Sectoral Scope and Project Type					
1.2.1. Is it indicated whether this a grouped project under Section 1.2 of the MR?	VCS MR Template Version 4.1	DR	This is available in the Section 1.2 of the MR.	OK	OK
1.2.2. Is the sectoral scope(s) applicable to the project indicated?	VCS MR Template Version 4.1	DR	Sectoral Scope 1 has been indicated as the sectoral scope of the project activity.	OK	OK
1.2.3. Is the category of the project activity specified?	VCS MR Template Version 4.1	DR	N/A (Since this is not an AFOLU project, the category is not applicable.)	OK	OK
1.3. Project Proponent					
1.3.1. Are the contact information for the project proponent(s) provided in the tabular format?	VCS MR Template Version 4.1	DR	The contact information for the project proponent has been indicated in the Section 1.3 of the MR.	OK	OK
1.4. Other Entities Involved in the Project					
1.4.1. Are the contact information and roles/responsibilities for any other entities involved in the development of the project provided?	VCS MR Template Version 4.1	DR	The contact information for the other entities has been indicated in the Section 1.4 of the MR.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.5. Project Start Date					
1.5.1. Is the project start date (the date on which the project began reducing or removing GHG emissions) indicated in day, month and year format?	VCS MR Template Version 4.1	DR	Please see CAR-3.	CAR-3	OK
1.6. Project Crediting Period					
1.6.1. Is the total crediting period including the day, month and year for the start and end dates and the total number of years indicated?	VCS MR Template Version 4.1	DR	<ul style="list-style-type: none"> a) Please revise the crediting period in the Section 1.6 considering that the start and end dates are also included. b) The statement 'The crediting period will be 20 years and 0 month in total.' Is to be removed too. c) The crediting period specified for the project activity in the VCS Registry system is different from the crediting period specified in the MR. Please clarify the reason for this issue. If the VCS Registry system should be update, please inform VCS about it. 	CAR-6	OK
1.7. Project Location					
1.7.1. Has complete information on the location of the project activity, including town, city, country and GPS coordinates been provided under Section 1.7 of the MR?	VCS MR Template Version 4.1	DR	Please indicate the closest settlement and its distance to the project activity in the Section 1.7 of the MR.	CL-1	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.8. Title and Reference of Methodology					
1.8.1. Is the following information provided regarding the methodology(s) applied to the project?	VCS MR Template Version 4.1	DR	Please see below.		
1.8.1.1. The title of the methodology(ies)	VCS MR Template Version 4.1	DR	Please clarify the reason of using ACM0002 instead of AMS-I.D for the calculation of the project emissions because in the registered PD, ACM0002 was not used.	CL-2	OK
1.8.1.2. The reference of the methodology(ies)	VCS MR Template Version 4.1	DR	The reference of the applied methodology has been indicated in the Section 1.8 of the MR.	OK	OK
1.8.1.3. The version number of the methodology(ies)	VCS MR Template Version 4.1	DR	Please see CL-2.	CL-2	OK
1.8.2. Is the following information provided regarding the tool(s) applied to the project?	VCS MR Template Version 4.1	DR	Please see below.		
1.8.2.1. The title of the methodology(ies)	VCS MR Template Version 4.1	DR	The titles of the applied tools have been indicated in the Section 1.8 of the MR.	OK	OK
1.8.2.2. The version number of the methodology(ies)	VCS MR Template Version 4.1	DR	The version numbers of the applied tools have been indicated in the Section 1.8 of the MR.	OK	OK
1.9. Participation under Other Programs					
1.9.1. Has it been indicated whether the project has been registered or seeking registration under any other GHG programs?	VCS MR Template Version 4.1	DR	Please provide the signed and sealed letter on company letterhead that the project hasn't been registered, or hasn't been seeking registration under any other GHG programs.	CAR-7	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.9.2. If the project has been registered under any other GHG programs, have the PPs provided the registration number and details?	VCS MR Template Version 4.1	DR	Please see CAR-7.	CAR-7	OK
1.9.3. If the project has been registered under any other GHG programs, have the details of any GHG credits claimed under such programs been provided in the Section 1.9 of the MR?	VCS MR Template Version 4.1	DR	Please see CAR-7.	CAR-7	OK
1.10. Other Forms of Credit					
1.10.1. Does the project reduce GHG emissions from activities that are included in an emissions trading program; or any other mechanism that includes GHG allowance trading?	VCS MR Template Version 4.1	DR	Please provide the signed and sealed letter on company letterhead that project hasn't been included in an emissions trading program; or any other mechanism that includes GHG allowance trading.	CAR-8	OK
1.10.2. If the project reduces GHG emissions from activities that are included in an emissions trading program; or any other mechanism that includes GHG allowance trading, have the PPs provided evidence on the following?	VCS MR Template Version 4.1	DR	Please see CAR-8.	CAR-8	OK
1.10.2.1. the reductions or removals generated by the project have or will not be used for compliance under such program(s) or mechanism(s)	VCS MR Template Version 4.1	DR	Please see CAR-8.	CAR-8	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.10.3. Have the project(s) created other forms of environmental credit (for example renewable energy certificates)?	VCS MR Template Version 4.1	DR	Please see CAR-8.	CAR-8	OK
1.10.4. If the project(s) created other forms of environmental credit (for example renewable energy certificates), has the PPs provided all relevant information about the GHG-related environmental credits and the related program?	VCS MR Template Version 4.1	DR	Please see CAR-8.	CAR-8	OK
1.10.5. Have all other programs under which the project is eligible to participate (to create another form of GHG-related environmental credit) been listed?	VCS MR Template Version 4.1	DR	Please see CAR-8.	CAR-8	OK
1.11. Sustainable Development Contributions					

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.11.1. Is a brief description provided including the following (no more than 100 words):	VCS MR Template Version 4.1	DR	<ul style="list-style-type: none"> a) The parameter set for SDG 11 is "Annual mean levels of fine particulate matter". Therefore, in the contribution part, a value based on this parameter must be specified. Please specify this value or remove this SDG from section 1.11 of the MR. b) Please indicate each SDG contribution in the ER Calculation Excel spreadsheet as well. c) The total electricity generation specified in the ER Calculation Excel spreadsheet and the total electricity generation value specified in Section 1.11 are different from each other. Please correct the contradiction. d) Please refer the CDM Tool: "Tool to determine the remaining lifetime of equipment" for the lifetime of the project activity and revise the total electricity generation value of the project activity considering this tool. 	CAR-9	OK
1.11.1.1. A summary description of project activities implemented during the monitoring period that result in SD contributions (i.e., technologies/measures implemented, activity location).	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.1.2. An explanation of how project activities result in the SD contributions described in Table 1 of MR	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.11.1.3. Has it been identified of which SD contributions described in Table 1 of MR contributes to achieving any nationally stated sustainable development priorities, including any provisions for monitoring and reporting same?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.1.4. Is evidence of the project's SD contributions provided as appendices to MR?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.2. Are Activities implemented during the monitoring period described in MR? Activities implemented during previous monitoring periods shall not be described in MR. Where no activities were implemented during the monitoring period, state as such.	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.3. Are the project's quantifiable contributions to specific targets and indicators of the Sustainable Development Goals (SDGs) for the monitoring period provided using Table 1?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.3.1. Is the official list of SDG Targets and Indicators (available in MR) used to identify the SDG Targets to which the project has contributed?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.11.3.2. Is evidence for each contribution identified in accordance with Section 1.11?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.4. Are Contributions aligned with the SDGs, as follows?	VCS MR Template Version 4.1	DR	Please see below.		
1.11.4.1. Where possible, are all contributions related to official SDG targets and indicators?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.4.2. For climate change mitigation impacts, is “13.0” written in the SDG target column of Table 1 and is the indicator “Tonnes of greenhouse gas emissions avoided or removed” used?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.4.3. Where a project’s self-defined measure for tracking a benefit does not align with an official SDG indicator is a project-specific indicator that relates to the most appropriate SDG target written in Table 1?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.11.5. Are total project contributions since the project start date, previous SD contribution monitoring period, or VCS monitoring period in the "Current Project Contributions" column and the cumulative contributions over the project lifetime documented in the "Contributions Over the Project Lifetime" column in Table 1 of MR?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
1.11.6. Is the cumulative impact calculated by summing the current project contributions with all impacts included in previously approved VCS monitoring reports or Sustainable Development Contribution Reports?	VCS MR Template Version 4.1	DR	Please see CAR-9.	CAR-9	OK
2. SAFEGUARDS					
2.1. No Net Harm					
2.1.1. Has it been summarized by PPs any potential negative environmental and socio-economic impacts of the project activity and the steps taken to mitigate them?	VCS MR Template Version 4.1	DR	Please include the precautions taken for the possible negative environmental and socio-economic impacts of the project activity in the Section 2.1 of the MR.	CAR-10	OK
2.2. Local Stakeholder Consultation					

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
2.2.1. Has the process regarding the local stakeholder consultation been described by PPs including the following?	VCS MR Template Version 4.1	DR	<ul style="list-style-type: none"> a) Please provide the procedures or methods used for engaging local stakeholders. b) Please provide the procedures or methods used for documenting the outcomes of the local stakeholder communication in the Section 2.2 of the MR. c) Please provide the signed document about the contact details of the PP relevant staff in case of any complaint by relevant villages and whether there is any complaint received by the Mukhtar from the local stakeholders. d) Please include the current status of the on-going communication with the local stakeholders in the Section 2.2 of the MR. e) Please include all local stakeholder communication details associated with the current monitoring period in the Section 2.2 of the MR. f) Please indicate the details on any updates to the project design or justifying why updates are not appropriate. 	CAR-11	OK
2.2.1.1. The procedures or methods used for engaging local stakeholders (e.g. dates of announcements or meetings, periods during which input was sought)	VCS MR Template Version 4.1	DR	Please see CAR-11.	CAR-11	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
2.2.1.2. The procedures or methods used for documenting the outcomes of the local stakeholder communication	VCS MR Template Version 4.1	DR	Please see CAR-11.	CAR-11	OK
2.2.1.3. The mechanism for on-going communication with local stakeholders conducted prior to verification	VCS MR Template Version 4.1	DR	Please see CAR-11.	CAR-11	OK
2.2.1.4. How due account of all and any input received during ongoing communication has been taken	VCS MR Template Version 4.1	DR	Please see CAR-11.	CAR-11	OK
2.2.1.5. The details on any updates to the project design or justifying why updates are not appropriate.	VCS MR Template Version 4.1	DR	Please see CAR-11.	CAR-11	OK
3. IMPLEMENTATION STATUS					
3.1. Implementation Status of The Project Activity					
3.1.1. Has a description of the implementation and operational status of the project as of this monitoring period been provided under section 3.1 of the MR?	CDM-MR-FORM Version 9.0	DR	Please remove the repeating year “2014” from the Section 3.1 of the MR. Please also see CAR-3 and CAR-5.	CL-3	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.1.2. Has the installed technology(ies), technical process and equipment, including the diagrams, where appropriate, been included in section 3.1 of the MR?	CDM-MR-FORM Version 9.0	DR	Please see CAR-5.	CAR-5	OK
3.1.3. Has the starting date of operation of the project activity been provided under Section 3.1 of the MR?	CDM project standard for project activities §256b	DR	Please see CAR-3.	CAR-3	OK
3.1.4. If the project activity consists of more than one site, has the status of implementation and starting date of operation for each site been clearly described under Section 3.1 of the MR?	CDM project standard for project activities §256b	DR	N/A	OK	OK
3.1.5. If the implementation of the project activity planned to be realized in different phases, has the progress of the proposed VCS project activity achieved in each phase been indicated under Section 3.1 of the MR?	CDM project standard for project activities §256b	DR	N/A	OK	OK
3.1.6. Do the actual project activity and its operation comply with the registered PD and/or an approved revised PD??	CDM validation and verification standard for project activities §354a	DR	Please see CAR-3 and CAR-5.	CAR-3 CAR-5	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.1.7. Have the PPs implemented and operated the VCS project activity as per the descriptions contained in the registered PD?	CDM validation and verification standard for project activities §354b	DR	Please see CAR-5.	CAR-5	OK
3.1.8. Are there any other changes (e.g. to project proponent or other entities) with respect to the registered project?	VCS MR Template Version 4.1	DR	Please indicate any changes of the project activity with respect to the registered PD in the Section 3.1 of the MR as well.	CAR-12	OK
3.2. Deviations					
3.2.1. Methodology Deviations					
3.2.1.1. Are there any deviations from the methodology? •	VCS MR Template Version 4.1	DR	The deviation which is mentioned in the Section 3.2.1 is not related with the methodology deviation. It is related with the Project Description Deviation. Therefore, please indicate this information in the relevant section.	CAR-13	OK
3.2.1.2. If there are any deviations from the methodology, are these deviations described properly?	VCS MR Template Version 4.1	DR	Please see CAR-13.	CAR-13	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.2.1.3. If there are any deviations from the methodology, are these deviations justified properly and clearly?	VCS MR Template Version 4.1	DR	Please see CAR-13.	CAR-13	OK
3.2.2. Project Description Deviations					
3.2.2.1. Are there any deviations from the registered project description?	VCS MR Template Version 4.1	DR	Please see CAR-13.	CAR-13	OK
3.2.2.2. If there are any deviations from the project description, are these deviations described properly?	VCS MR Template Version 4.1	DR	Please see CAR-13.	CAR-13	OK
3.2.2.3. If there are any deviations from the project description, are these deviations justified properly and clearly?	VCS MR Template Version 4.1	DR	Please see CAR-13.	CAR-13	OK
3.2.2.4. Is the outcome of the deviation from the project description provided?	VCS MR Template Version 4.1	DR	Please see CAR-13.	CAR-13	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.2.2.5. Has it been described and reported on any project description deviations applied in previous monitoring reports?	VCS MR Template Version 4.1	DR	Please see CAR-13.	CAR-13	OK
3.3. Grouped Projects					
3.3.1. Is this a grouped project?	VCS MR Template Version 4.1	DR	N/A (The project is not a grouped project.)	OK	OK
3.3.2. If it is a grouped project, is the relevant information about new instances of the project activity(ies) provided?	VCS MR Template Version 4.1	DR	N/A (The project is not a grouped project.)	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.3.3. If it is a grouped project, is it demonstrated clearly and transparently that each new instance of the project activity(s) meets the eligibility criteria set out in the project description?	VCS MR Template Version 4.1	DR	N/A (The project is not a grouped project.)	OK	OK
4. DATA AND PARAMETERS					
4.1. Data and Parameters Available at Validation					
4.1.1. Has all the data that is determined only once for the crediting period but are used after registration of the project, been listed under Section 4.1 using the tabular format?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	All data and parameters that is determined only once for the crediting period but are used after registration of the project are available under Section 4.1 of the MR.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.1.2. If all the data that is determined only once for the crediting period but are used after registration of the project, does the listed data include all the parameters used to calculate baseline, project and leakage emissions as well as other relevant parameters required by the approved methodology and the monitoring plan?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is in line with the registered PD.	OK	OK
4.1.3. In the data/parameter tables provided under Section 4.1 of the MR, for each data has the name of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is in line with the registered PD.	OK	OK
4.1.4. In the data/parameter tables provided under Section 4.1 of the MR, for each data has the unit of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is in line with the registered PD.	OK	OK
4.1.5. In the data/parameter tables provided under Section 4.1 of the MR, for each data has the description of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is in line with the registered PD.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.1.6. In the data/parameter tables provided under Section 4.1 of the MR, for each data has the source of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is in line with the registered PD.	OK	OK
4.1.7. In the data/parameter tables provided under Section 4.1 of the MR, for each data has the values applied of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is in line with the registered PD.	OK	OK
4.1.8. In the data/parameter tables provided under Section 4.1 of the MR, for each data has the justification of choice of data or description of measurement methods and procedures applied been provided?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is in line with the registered PD.	OK	OK
4.1.9. In the data/parameter tables provided under Section 4.1 of the MR, for each data has it been indicated what the data/parameters are used for (baseline/project /leakage emission calculations)?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is in line with the registered PD.	OK	OK
4.2. Data and Parameters Monitored					

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.1. Has all the data that are monitored been listed under Section 4.2 using the tabular format?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	<ul style="list-style-type: none"> a) According to the generation license and registered PD, the estimated electricity generation amount is 38.446 GWh/year. But in the value applied row of “Net Electricity Generated by the Dagbasi HEPP (EGFacility,y)”, it is stated as 26,130 MWh/year. Please correct this contradiction. The monitored value corresponding to the covered monitoring period is to be indicated. b) Please indicate the accuracy class of the meters. c) Please indicate the meter tests and calibration dates in the Monitoring Equipment row of “Net Electricity Generated by the Dagbasi HEPP (EGFacility,y)” parameter. d) Please provide the evidence document for the value monitored of APJ. e) Please indicate QA/QC procedures for each parameter in the Section 4.2 of the MR. f) Please indicate the Monitoring Equipment for each parameter in the Section 4.2 of the MR. g) Please indicate the Calculation Method for each parameter in the Section 4.2 of the MR. h) Please indicate the calibration frequency and the related regulation for the meters. i) Please indicate the cross-checked method in the Section 4.2 as well. j) Please clearly state who is responsible for the measurements. 	CAR-14	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.2. In the data/parameter tables provided under section 4.2 of the MR, for each data has the name of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	EG _{facility,y} , Cap _{PJ} and A _{PJ} are monitored parameters in line with the registered PD.	OK	OK
4.2.3. In the data/parameter tables provided under section 4.2 of the MR, for each data has the unit of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK
4.2.4. In the data/parameter tables provided under section 4.2 of the MR, for each data has it been described how the data is monitored?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This has been stated for each parameter.	OK	OK
4.2.5. In the data/parameter tables provided under section 4.2 of the MR, for each data has the source of data been indicated (like logbooks, daily records, surveys, etc.)?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This has been stated for each parameter.	OK	OK
4.2.6. In the data/parameter tables provided under section 4.2 of the MR, for each data has the estimated values of the monitoring parameter been indicated?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.7. In the data/parameter tables provided under section 4.2 of the MR, for each data has the QA/QC procedures being applied been given?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK
4.2.8. In the data/parameter tables provided under section 4.2 of the MR, for each data has the purpose of data been given?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This has been stated for each parameter.	OK	OK
4.2.9. If applicable, has the calculation method, including any equations, used to establish the data/parameter been given?	VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK
4.2.10. In the data/parameter tables provided under section 4.2 of the MR, for each data has it been indicated what types of equipment are used to monitor each parameter, including following, if applicable as per the monitoring plan?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see below.		
4.2.10.1. Details on accuracy class	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK
4.2.10.2. The person/entity responsible for the measurement	VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.10.3. Any standards or protocols to be followed	VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK
4.2.10.4. Calibration frequency	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK
4.2.10.5. Serial number	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Serial numbers have been indicated.	OK	OK
4.2.10.6. Calibration date	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK
4.2.10.7. Validity of the calibration	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-14.	CAR-14	OK
4.2.11. In the data/parameter tables provided under section 4.2 of the MR, for each data has the measurement and recording frequency been indicated?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This has been stated for each parameter.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.12. Is the calibration frequency for measuring equipment specified in the monitoring methodology, in the applied standardized baselines or in the monitoring plan??	CDM validation and verification standard for project activities §370 VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK
4.2.13. If the calibration frequency for measuring equipment isn't specified in the monitoring methodology, guidance provided by the Board or the monitoring plan, are the equipment calibrated either in accordance with the specifications of the local/national standards, or as per the manufacturer's specification?	CDM validation and verification standard for project activities §370 VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK
4.2.14. If neither local/national standards nor the manufacturer's specification are available, have the international standards been used?	CDM validation and verification standard for project activities §370 VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.15. Is the calibration of the measuring equipment that have an impact on the claimed emission reductions conducted by the PPs at a frequency specified in the applied monitoring methodology and/or the monitoring plan?	CDM validation and verification standard for project activities §371 VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK
4.2.16. Has the calibration been delayed and has the calibration been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available) for the certain monitoring period?	CDM validation and verification standard for project activities §366 VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK
4.2.17. If the calibration is delayed and if the calibration is implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available) for the certain monitoring period, are one of the following approaches adopted by the PPs for the calculation of emission reductions?	CDM validation and verification standard for project activities §366 VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.17.1. Applying the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error; or	CDM validation and verification standard for project activities §366a VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK
4.2.17.2. Applying the error identified in the delayed calibration test, if the error is beyond the maximum permissible error of the measuring equipment.	CDM validation and verification standard for project activities §366b VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK
4.2.18. If calibration is delayed and if the calibration is implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available) for the certain monitoring period, has the error been applied in following ways?	CDM validation and verification standard for project activities §367 VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.18.1. The adjusted measured values of the delayed calibration result in fewer claimed emission reductions?	CDM validation and verification standard for project activities §367a VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK
4.2.18.2. For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration?	CDM validation and verification standard for project activities §367b VCS Std. Version 4.3	DR	Please see CAR-14.	CAR-14	OK
4.2.19. If the results of the delayed calibration aren't available, have PPs calculated the emission reductions conservatively?	CDM validation and verification standard for project activities §368	DR	Please see CAR-14.	CAR-14	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.20. If the results of the delayed calibration aren't available, have post registration requirements been followed by the PPs?	CDM validation and verification standard for project activities §369	DR	Please see CAR-14.	CAR-14	OK
4.2.21. Have any information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of emission reductions been given in detail in the MR?	CDM-MR-FORM Version 9.0 VCS Std. Version 4.3	DR	N/A	OK	OK
4.2.22. If the data that are monitored been listed under section 4.2 using the tabular format, does the listed data include all the parameters used to calculate baseline, project and leakage emissions as well as other relevant parameters required by the approved methodology and the monitoring plan?	CDM-MR-FORM Version 9.0 VCS Std. Version 4.3 CDM project standard for project activities §259	DR	$EG_{facility,y}$, Cap_{PJ} and A_{PJ} are monitored parameters in line with the registered PD.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.2.23. Is a complete set of data available for the specified monitoring period?	CDM validation and verification standard for project activities §373 VCS Std. Version 4.3	DR	EG _{facility,y} , Cap _{PJ} and A _{PJ} are monitored parameters in line with the registered PD.	OK	OK
4.3. Monitoring Plan					
4.3.1. Has a description of the monitoring system been provided under Section 4.3 of the MR?	CDM-MR-FORM Version 9.0 CDM project standard for project activities §258 VCS Std. Version 4.3	DR	A description of the monitoring system has been provided in the Section 4.3 of the MR.	OK	OK
4.3.2. Has information about the data collection procedures, including following been provided under Section 4.3 of the MR?	CDM-MR-FORM Version 9.0 CDM project standard for project activities §258 VCS Std. Version 4.3	DR	Please see below.		

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.3.2.1. Information flow including data generation	CDM-MR-FORM Version 9.0 CDM project standard for project activities §258 VCS Std. Version 4.3	DR	This is available.	OK	OK
4.3.2.2. Data aggregation	CDM-MR-FORM Version 9.0 CDM project standard for project activities §258 VCS Std. Version 4.3	DR	This is available.	OK	OK
4.3.2.3. Data recording	CDM-MR-FORM Version 9.0 CDM project standard for project activities §258 VCS Std. Version 4.3	DR	Please provide the data recording procedure in the Section 4.3 of the MR.	CAR-15	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.3.2.4. Data calculation	CDM-MR-FORM Version 9.0 CDM project standard for project activities §258 VCS Std. Version 4.3	DR	This is available.	OK	OK
4.3.2.5. Data reporting	CDM-MR-FORM Version 9.0 CDM project standard for project activities §258 VCS Std. Version 4.3	DR	Please specify how long the data records are kept in the Section 4.3 of the MR.	CAR-16	OK
4.3.3. Has organizational structure, roles and responsibilities of personnel, and emergency procedures for the monitoring system been provided under section 4.3 of the MR?	CDM-MR-FORM Version 9.0 CDM project standard for project activities §258 VCS Std. Version 4.3	DR	Please provide the organizational structure, brief roles and responsibilities of personnel, and emergency procedures for the monitoring system under Section 4.3 of the MR.	CAR-17	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.3.4. Regarding to the management and operational system, are the responsibilities and authorities for monitoring and reporting in accordance with the responsibilities and authorities stated in the monitoring plan?	CDM validation and verification standard for project activities §361b-(iv) VCS Std. Version 4.3	DR	Please see CAR-17.	CAR-17	OK
4.3.5. Have quality assurance and quality control procedures been applied in accordance with the monitoring plan?	CDM validation and verification standard for project activities §361e VCS Std. Version 4.3	DR	This is available.	OK	OK
4.3.6. Are the procedures for handling internal auditing and non-conformities described?	VCS Std. Version 4.3	DR	Please provide the information about the cross-checked method used in the Section 4.3 of the MR.	CAR-18	OK
4.3.7. Where appropriate, are the line diagrams to display the GHG data collection and management system included?	VCS Std. Version 4.3	DR	N/A (This is explained without any diagram).	OK	OK
4.3.8. If the sampling approaches used in the monitoring plan, has the following been included?	VCS Std. Version 4.3	DR	N/A (The sampling approach hasn't been used).	OK	OK
4.3.8.1. target precision levels	VCS Std. Version 4.3	DR	N/A (The sampling approach hasn't been used).	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.3.8.2. sample sizes	VCS Std. Version 4.3	DR	N/A (The sampling approach hasn't been used).	OK	OK
4.3.8.3. sample site locations	VCS Std. Version 4.3	DR	N/A (The sampling approach hasn't been used).	OK	OK
4.3.8.4. stratification	VCS Std. Version 4.3	DR	N/A (The sampling approach hasn't been used).	OK	OK
4.3.8.5. frequency of measurement and	VCS Std. Version 4.3	DR	N/A (The sampling approach hasn't been used).	OK	OK
4.3.8.6. QA/QC procedures	VCS Std. Version 4.3	DR	N/A (The sampling approach hasn't been used).	OK	OK
4.3.8.7. Demonstration on whether the required confidence/precision has been met.	CDM-MR-FORM Version 9.0	DR	N/A (The sampling approach hasn't been used).	OK	OK
4.3.9. Have the monitoring plan and the applied methodology been properly implemented and followed by the PPs?	CDM validation and verification standard for project activities §361a VCS Std. Version 4.3	DR	The monitoring system is available and in line with the registered PD.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.3.10. Has the monitoring of parameters (baseline / project / leakage / emission reduction) in the project activity been implemented in accordance with the monitoring plan contained in the registered PD or any accepted revised monitoring plan?	CDM validation and verification standard for project activities §361b-(i)-(ii)-(iii) VCS Std. Version 4.3	DR	The monitoring system is available and in line with the registered PD.	OK	OK
4.3.11. Have all parameters stated in the monitoring plan, the applied methodology and relevant VCS requirements been sufficiently monitored and updated as applicable?	CDM validation and verification standard for project activities §361b VCS Std. Version 4.3	DR	The monitoring system is available and in line with the registered PD.	OK	OK
4.3.12. Are monitoring results consistently recorded and stored as per the approved frequency?	CDM validation and verification standard for project activities §361d VCS Std. Version 4.3	DR	Please see CAR-15 and CAR-16.	CAR-15 CAR-16	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
5. QUANTIFICATION of GHG EMISSION REDUCTIONS and REMOVALS					
5.1. Baseline Emissions					
5.1.1. Has all the formulae used to calculate the baseline emissions been provided under section 5.1 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is available.	OK	OK
5.1.2. Has sample calculations for all formulae used and calculation of baseline emissions or baseline net GHG removals by sinks, applying actual values been provided under section 5.1 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please indicate the baseline emission values for each month in the ER Calculation Excel sheet.	CAR-19	OK
5.1.3. Has all electronic spread sheets to present full calculations in the monitoring report been attached?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-19.	CAR-19	OK
5.1.4. Have any assumptions used in baseline emission calculations been justified?	CDM validation and verification standard for project activities §373d VCS Std. Version 4.3	DR	N/A (There haven't been any assumptions used).	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
5.1.5. If applicable, are the appropriate emission factors used for the baseline emission calculations in line with the good guidance practices? (e.g., IPCC default values and other reference values)	CDM validation and verification standard for project activities §373e VCS Std. Version 4.3	DR	N/A (The grid emission factor has been calculated and determined during the validation process).	OK	OK
5.2. Project Emissions					
5.2.1. Has all the formulae used to calculate the project emissions been provided under section 5.2 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is available.	OK	OK
5.2.2. Has sample calculations for all formulae used and calculation of project emissions or actual net GHG removals by sinks, applying actual values been provided under section 5.2 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	a) Please indicate the project emission values for each month in the ER Calculation Excel sheet. b) Please indicate the power density calculation in the ER Calculation Excel sheet as well.	CAR-20	OK
5.2.3. Has all electronic spreadsheets to present full calculations in the monitoring report been attached?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-20.	CAR-20	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
5.2.4. Have any assumptions used in project emission calculations been justified?	CDM validation and verification standard for project activities §373d VCS Std. Version 4.3	DR	N/A (There haven't been any assumptions used).	OK	OK
5.2.5. If applicable, are the appropriate emission factors used for the project emission calculations in line with the good guidance practices? (e.g., IPCC default values and other reference values)	CDM validation and verification standard for project activities §373e VCS Std. Version 4.3	DR	N/A (The grid emission factor has been calculated and determined during the validation process).	OK	OK
5.3. Leakage					
5.3.1. Has all the formulae used to calculate the leakage emissions been provided under section 5.3 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is available.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
5.3.2. Has sample calculations for all formulae used and calculation of leakage emissions, applying actual values been provided under section 5.3 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please indicate the leakage emission values for each month in the ER Calculation Excel sheet.	CAR-21	OK
5.3.3. Has all electronic spread sheets to present full calculations in the monitoring report been attached?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	Please see CAR-21.	CAR-21	OK
5.3.4. Have any assumptions used in leakage emission calculations been justified?	CDM validation and verification standard for project activities §373d VCS Std. Version 4.3	DR	N/A (There haven't been any assumptions used).	OK	OK
5.3.5. If applicable, are the appropriate emission factors used for the leakage emission calculations in line with the good guidance practices? (e.g., IPCC default values and other reference values)	CDM validation and verification standard for project activities §373e VCS Std. Version 4.3	DR	N/A (The grid emission factor has been calculated and determined during the validation process).	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
5.4. Net GHG Emission Reductions and Removals					
5.4.1. Have the total baseline emissions or baseline net GHG removals by sinks during the monitoring period been given under section 5.4 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is available in the Section 5.4 of the MR.	OK	OK
5.4.2. Has the total project emissions or actual net GHG removals by sinks during the monitoring period been given under section 5.4 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is available in the Section 5.4 of the MR.	OK	OK
5.4.3. Has the total leakage emissions during the monitoring period been given under section 5.4 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	This is available in the Section 5.4 of the MR.	OK	OK
5.4.4. Have the total emission reductions or net anthropogenic GHG removals by sinks during the monitoring period been given under section 5.4 of the MR?	CDM-MR-FORM Version 9.0 VCS MR Template Version 4.1	DR	<p>a) Please include the relevant formulae for the calculation of net GHG emission reductions and removals in the Section 5.4 of the MR.</p> <p>b) Please include the achieved and estimated “ER Comparison” calculation in the ER Calculation Excel sheet and MR.</p> <p>Please also see CAR-3.</p>	CAR-22	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
5.4.5. If there is material information that can cause overestimation of emission reductions or removals of the project activity, is this equal to or higher than one of the following?	CDM validation and verification standard for project activities §326	DR	There hasn't been any material information detected.	OK	OK
5.4.5.1. 0.5 per cent of the emission reductions or removals for project activities achieving a total emission reduction or removal of equal to or more than 500,000 tons of carbon dioxide equivalent per year?	CDM validation and verification standard for project activities §326a	DR	There hasn't been any material information detected.	OK	OK
5.4.5.2. 1 per cent of the emission reductions or removals for project activities achieving a total emission reduction or removal between 300,000 and 500,000 tons of carbon dioxide equivalent per year?	CDM validation and verification standard for project activities §326b	DR	There hasn't been any material information detected.	OK	OK
5.4.5.3. 2 per cent of the emission reductions or removals for large-scale project activities achieving a total emission reduction or removal of 300,000 tons of carbon dioxide equivalent per year or less?	CDM validation and verification standard for project activities §326c	DR	There hasn't been any material information detected.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
5.4.5.4. 10 per cent of the emission reductions or removals for the microscale project activities?	CDM validation and verification standard for project activities §326e	DR	There hasn't been any material information detected.	OK	OK
5.4.5.5. 5 per cent of the emission reductions or removals for small-scale project activities other than project activities covered under 5.4.5.4 above?	CDM validation and verification standard for project activities §326d	DR	There hasn't been any material information detected.	OK	OK
6. APPENDICES					
6.1. If any further background information regarding any raw data from monitoring is provided, is this information correct and supported by the appropriate evidence?	VCS MR Template Version 4.1	DR	The information correct and supported by the appropriate evidence in the Appendix-1.	OK	OK
6.2. If any further background information regarding additional information used in the monitoring plan is provided, is this information correct and supported by the appropriate evidence?	VCS MR Template Version 4.1	DR	N/A	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
6.3. If any further background information regarding documentation of activities conducted from the monitoring plan and diagrams are provided, is this information correct and supported by the appropriate evidence?	VCS MR Template Version 4.1	DR	N/A	OK	OK
7. OTHER REQUIREMENTS					
7.1. Forward Action Requests (FARs) Identified During Validation and/or Previous Verification					
7.1.1. Is there any remaining FARs from the validation and/or previous verification activities?	CDM validation and verification standard for project activities §319c, 395h	DR	There hasn't been any FAR issued by the relevant DOE during the validation process in line with the provided validation report.	OK	OK
7.1.2. If there any remaining FARs from the validation and/or previous verification activities, have the PPs addressed these FARs in the MR?	CDM validation and verification standard for project activities §320	DR	There hasn't been any FAR issued by the relevant DOE during the validation process in line with the provided validation report.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
7.1.3. Has the FARs been resolved?	CDM validation and verification standard for project activities §344d, §346	DR	There hasn't been any FAR issued by the relevant DOE during the validation process in line with the provided validation report.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Table 2 – Resolution of Corrective Action, Forward Action and Clarification Requests

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
<p>CAR-1</p> <p>a) Please indicate all items in the MR using regular (non-italic) font (e.g. Section 1.11) and using 10.5pt (e.g. Table 3 in the Section 1.11).</p> <p>b) Please correct the numbering of the sections (e.g. the subsections' numbers of the Section 3.2)</p>	1	<p>a) Italic items are changed to regular fonts. And rest of the document is also checked and remaining italic items (such as Section 4.1) changed to regular fonts.</p> <p>Font size changed to 10.5 in Table 3 in the Section 1.1.</p> <p>b) Sub-sections of Section 3.2 is corrected.</p>	<p>Review-1:</p> <p>a) Ok Closed (All items were revised accordingly.)</p> <p>b) Ok Closed (The numbering was revised accordingly.)</p>
<p>CAR-2</p> <p>Please add the page numbers to the MR.</p>	4	Page numbers added.	<p>Review-1:</p> <p>Ok Closed (Page numbers were added.)</p>
<p>CAR-3</p> <p>a) Please demonstrate emission reduction values as integers in ER Calculation Excel spreadsheet and use the round-down function for these values.</p> <p>b) Please make the electricity generation values in the ER Calculation Excel sheet compatible with the values of EPIAS systems and establish a proportion where necessary (e.g. April 2014).</p> <p>c) Considering the above corrections, please revise the total electricity generation value and the total amount of emission reductions value throughout the MR and ER Calculation Excel spreadsheet (displaying ERs as integer values).</p>	1.1.1	<p>a) corrected</p> <p>Response 1: Excel sheet is corrected. MR Appendix I is revised (Appendix I and Appendix II is combined and revised)</p> <p>b) Dagbasi HEPP started to produce electricity on 11 April 2014. EPIAS value for April 2014 covers 20 days. 1-10 April 2020 added to calculations partially to consider 6 years monitoring periods.</p> <p>Response 1: Excel sheet is corrected. MR Appendix I is revised (Appendix I and Appendix II is combined and revised). The rest of the EPIAS is also checked.</p>	<p>Review-1:</p> <p>a) Although, round down function to the vintages has been applied, the monthly emission reduction values are still presented with two decimals. Please also correct the Appendix I and II in the MR too.</p> <p>b) Please make the electricity generation values in the ER Calculation Excel sheet compatible with the values of EPIAS systems (e.g. July 2014).</p> <p>c) Considering the above corrections, please revise the total electricity generation value and the total amount of emission reductions</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
<p>d) Please revise the electricity generation, consumption, and net values in the ER Calculation Excel spreadsheet to be two digits after the comma.</p> <p>e) Please include estimated and achieved ER comparison calculation in the ER Calculation Excel spreadsheet and MR.</p> <p>f) Please remove the blank pages from ER Calculation Excel spreadsheet.</p>		<p>c)All values in report and excel files changed. Response 1: Corrected</p> <p>d)corrected</p> <p>e)added to the excel sheet Response 1: Excel sheet is revised considering 2016 and 2020 have 366 days.</p> <p>f)removed g) Response 1: Formula added to the excel sheet.</p> <p>Response to Review-2 b) and c) All items are corrected.</p>	<p>value throughout the MR and ER Calculation Excel spreadsheet (displaying ERs as integer values).</p> <p>d) Ok Closed (The electricity generation values were demonstrated with two digits after comma.)</p> <p>e) Please revise the PD emission reduction estimates in the ER Calculation Excel sheet, taking into account that 2016 and 2020 have 366 days.</p> <p>f) Ok Closed (The blank pages were removed.)</p> <p>g) Please demonstrate which formula was used in PD emission reduction estimates for 2014 and 2020 in the ER Calculation Excel sheet.</p> <p>Review-2:</p> <p>a) Ok Closed (The Excel sheet and Appendixes were corrected.)</p> <p>b) Please make the electricity generation values (gross or consumption) in the ER Calculation Excel sheet compatible with the values of EPIAS systems for April 2014, February 2017 and July 2019.</p> <p>c) Considering the above corrections, please revise the total electricity generation value and the</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
			<p>total amount of emission reductions value throughout the MR and ER Calculation Excel spreadsheet.</p> <p>e) Ok Closed (The Excel sheet was revised.)</p> <p>g) Ok Closed (The formula were added.)</p> <p>Review-3:</p> <p>b) Ok Closed (The ER Excel sheet was revised accordingly.)</p> <p>c) Ok Closed (The values were revised accordingly.)</p>
<p>CAR-4</p> <p>Please clearly indicate the purpose of the project activity in the Section 1.1 of the MR.</p>	1.1.2	<p>Following sentence added to the end of the first para of the Section 1.1.</p> <p>Purpose of the project is to generate renewable electricity to the Turkish National Grid System (TNGS) and to contribute global carbon emission reductions efforts.</p>	<p>Review-1:</p> <p>Ok Closed (The purpose of the project activity was indicated in Section 1.1 of the MR.)</p>
<p>CAR-5</p> <p>Please provide the brief description of the installed technology and equipment including turbine types and models, their brief specifications in the Section 1.1 of the MR.</p>	1.1.3	<p>Section 1.1. is revised. Para 4 and 5 added.</p> <p>Response 1.: Section 1.1. is revised by inserting information Section 1.8 of the PD.</p>	<p>Review-1:</p> <p>Please provide the brief description of the installed technology and equipment including turbine types and models, their brief specifications in the Section 1.1 of the MR considering the information in Section 1.8, Table 1 in the registered PD.</p> <p>Review-2:</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
			Ok Closed (The brief description of the installed technology was added.)
<p>CAR-6</p> <p>a) Please revise the crediting period in the Section 1.6 considering that the start and end dates are also included.</p> <p>b) The statement 'The crediting period will be 20 years and 0 month in total.' Is to be removed too.</p> <p>c) The crediting period specified for the project activity in the VCS Registry system is different from the crediting period specified in the MR. Please clarify the reason for this issue. If the VCS Registry system should be update, please inform VCS about it.</p>	1.6.1	<p>a. Crediting period is r revised as 11 April 2014 and ends on 10 April 2024.</p> <p>b. REMOVED: "The crediting period will be 20 years and 0 month in total."</p> <p>c. I sent an email to the Verra VCS for correction.</p>	<p>Review-1:</p> <p>a) Ok Closed (The crediting period was revised in Section 1.6 of the MR.)</p> <p>b) Ok Closed (The mentioned sentence was removed.)</p> <p>c) Ok Closed (In the VCS Registry system, the crediting period is shown as MM/DD/YYYY.)</p>
<p>CAR-7</p> <p>Please provide the signed and sealed letter on company letterhead that the project hasn't been registered, or hasn't been seeking registration under any other GHG programs.</p>	1.9.1	Letter is prepared.	<p>Review-1:</p> <p>Ok Closed (The letter was provided.)</p>
<p>CAR-8</p> <p>Please provide the signed and sealed letter on company letterhead that project hasn't been included in an emissions trading program; or any other mechanism that includes GHG allowance trading.</p>	1.10.1	Letter is prepared.	<p>Review-1:</p> <p>Ok Closed (The letter was provided.)</p>
<p>CAR-9</p> <p>a) The parameter set for SDG 11 is "Annual</p>	1.11.1	<p>a. Section 1.11 is revised as per the comment. SDG 11.6.2 and related</p>	<p>Review-1:</p> <p>a) Ok Closed (SDG11 was</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
<p>mean levels of fine particulate matter". Therefore, in the contribution part, a value based on this parameter must be specified. Please specify this value or remove this SDG from section 1.11 of the MR.</p> <p>b) Please indicate each SDG contribution in the ER Calculation Excel spreadsheet as well.</p> <p>c) The total electricity generation specified in the ER Calculation Excel spreadsheet and the total electricity generation value specified in Section 1.11 are different from each other.</p> <p>d) Please refer the CDM Tool: "Tool to determine the remaining lifetime of equipment" for the lifetime of the project activity and revise the total electricity generation value of the project activity considering this tool.</p>		<p>explanation is deleted.</p> <p>b. ER Calculation Excel spreadsheet is revised and includes SDG contribution.</p> <p>c. Corrected.</p> <p>d. Dipnot added to the PDD in Section 1.1. in the table.</p>	<p>removed.)</p> <p>b) Ok Closed (Each SDG contribution was indicated in the ER Calculation Excel sheet.)</p> <p>c) Ok Closed (The values were corrected.)</p> <p>d) Ok Closed (The tool was applied for the lifetime of project equipment.)</p>
<p>CAR-10</p> <p>Please include the precautions taken for the possible negative environmental and socio-economic impacts of the project activity in the Section 2.1 of the MR.</p>	2.1.1	Section 2.1 is revised as per the CAR-10.	<p>Review-1:</p> <p>Ok Closed (The precautions were indicated in Section 2.1 of the MR.)</p>
<p>CAR-11</p> <p>a) Please provide the procedures or methods used for engaging local stakeholders.</p> <p>b) Please provide the procedures or methods used for documenting the outcomes of the local stakeholder communication in the Section 2.2 of the MR.</p> <p>c) Please provide the signed document about the contact details of the PP relevant staff in case of any complaint by relevant villages</p>	2.2.1	<p>Section 2.2 is revised.</p> <p>Response 1: Signed document provided.</p>	<p>Review-1:</p> <p>a) Ok Closed (The procedures were indicated in Section 2.2.)</p> <p>b) Ok Closed (The procedures were indicated in Section 2.2.)</p> <p>c) Please provide the signed document about the contact details of the PP relevant staff in case of any complaint by relevant villages and whether there is any complaint</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
<p>and whether there is any complaint received by the Mukhtar from the local stakeholders.</p> <p>d) Please include the current status of the on-going communication with the local stakeholders in the Section 2.2 of the MR.</p> <p>e) Please include all local stakeholder communication details associated with the current monitoring period in the Section 2.2 of the MR.</p> <p>f) Please indicate the details on any updates to the project design or justifying why updates are not appropriate.</p>			<p>received by the Mukhtar from the local stakeholders.</p> <p>d) Ok Closed (The current status was indicated in Section 2.2.)</p> <p>e) Ok Closed (The information was indicated in Section 2.2.)</p> <p>f) Ok Closed (The details on the updates were indicated in Section 2.2.)</p> <p>Review-2:</p> <p>c) Ok Closed (The signed letter was provided.)</p>
<p>CAR-12</p> <p>Please indicate any changes of the project activity with respect to the registered PD in the Section 3.1 of the MR as well.</p>	3.1.9	<p>To the Section 3.1, following sentence is added: "There is no update or any change to the project design after the registration of the project."</p>	<p>Review-1:</p> <p>Ok Closed (The necessary information was indicated in Section 3.1.)</p>
<p>CAR-13</p> <p>The deviation which is mentioned in the Section 3.2.1 is not related with the methodology deviation. It is related with the Project Description Deviation. Therefore, please indicate this information in the relevant section.</p>	3.2.1.1	<p>2nd paragraph in Section 3.2.1 is moved to the next section 3.2.2.</p>	<p>Review-1:</p> <p>Ok Closed (The deviation was specified in the correct section.)</p>
<p>CAR-14</p> <p>a) According to the generation license and registered PD, the estimated electricity generation amount is 38.446 GWh/year. But</p>	4.2.1	<p>a) It is corrected.</p> <p>b) Main and backup power meters brand is EMH, model is LZQJ-XC which has 0.2S accuracy class.</p>	<p>Review-1:</p> <p>a) Ok Closed (The estimated electricity generation amount was revised correctly.)</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
<p>in the value applied row of “Net Electricity Generated by the Dagbasi HEPP (EG_{Facility,y})”, it is stated as 26,130 MWh/year. Please correct this contradiction.</p> <p>b) Please indicate the accuracy class of the meters.</p> <p>c) Please indicate the meter tests and calibration dates in the Monitoring Equipment row of “Net Electricity Generated by the Dagbasi HEPP (EG_{Facility,y})” parameter.</p> <p>d) Please provide the evidence document for the value monitored of A_{PJ}.</p> <p>e) Please indicate QA/QC procedures for each parameter in the Section 4.2 of the MR.</p> <p>f) Please indicate the Monitoring Equipment for each parameter in the Section 4.2 of the MR.</p> <p>g) Please indicate the Calculation Method for each parameter in the Section 4.2 of the MR.</p> <p>h) Please indicate the calibration frequency and the related regulation for the meters.</p> <p>i) Please indicate the cross-checked method in the Section 4.2 as well.</p> <p>j) Please clearly state who is responsible for the measurements.</p>		<p>c) Added to the “Net Electricity Generated by the Dagbasi HEPP (EG_{Facility,y})” “QA/QC procedures to be applied” row.</p> <p>Response 1: Section 4.2, test date in 2018 is corrected. 2015 test date is added to the section 4.2.</p> <p>d) Dagbasi HEPP is a run of river type HEPP without storage volume. Operation elevation of the plant is not changing; therefore reservoir elevation and area is not changing. So, reservoir area is not measured. Since it is not measured, there is no evidence document that we can provide. Design document of the Dagbasi HEPP can be provided.</p> <p>e) QA/QC procedures added to the relevant row of the Section 4.2.</p> <p>f) Monitoring equipment rows are revised.</p> <p>g) Calculation methods rows are revised.</p> <p>h) Added to the QA/QC row.</p> <p>i) OSF records are mentioned in the Section 4.2.</p> <p>Response 1: OSF records provided. The software program only provides daily data. However 2014 data is missing, project owner could not find it.</p>	<p>b) Ok Closed (Accuracy class of the meters was indicated in Section 4.2.)</p> <p>c) The date for 2018 does not match the date which is indicated in the provided test report. Please correct the date in Section 4.2 of the MR. Also, there is a test report from 2015. Please indicate this also in Section 4.2.</p> <p>d) Ok Closed (The clarification was made.)</p> <p>e) Ok Closed (QA/QC procedures were indicated for each parameter in Section 4.2 of the MR.)</p> <p>f) Ok Closed (Monitoring equipment were indicated for each parameter in Section 4.2 of the MR.)</p> <p>g) Ok Closed (Calculation methods were indicated for each parameter in Section 4.2 of the MR.)</p> <p>h) Ok Closed (The calibration frequency and the related regulation for the meters were indicated in Section 4.2 of the MR.)</p> <p>i) Please provide the OSF records for whole monitoring period.</p> <p>j) Ok Closed (The clarification was made.)</p> <p>k) Please provide the first index protocol of the electricity meters.</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
		<p>j) TEIAS is responsible for the measurements, added to the “monitoring equipment” row.</p> <p>k). Response 1: first index protocol could not be found by the project owner. It is missing.</p>	<p>Review-2:</p> <p>c) Ok Closed (The necessary changes were made.)</p> <p>i) Ok Closed (For 2014, TEIAS invoices were provided.)</p> <p>k) Ok Closed (First index protocols done by TEIAS when the meters are installed and TEIAS is the responsibility party.)</p>
<p>CAR-15</p> <p>Please provide the data recording procedure in the Section 4.3 of the MR.</p>	4.3.2.3	Section 4.3, is revised. “Data recording procedure” sub title added.	<p>Review-1:</p> <p>Ok Closed (The information was added.)</p>
<p>CAR-16</p> <p>Please specify how long the data records are kept in the Section 4.3 of the MR.</p>	4.3.2.5	Section 4.3, is revised. Last paragraph added.	<p>Review-1:</p> <p>Ok Closed (The information was added.)</p>
<p>CAR-17</p> <p>Please provide the organizational structure, brief roles and responsibilities of personnel, and emergency procedures for the monitoring system under Section 4.3 of the MR.</p>	4.3.3	<p>Section 4.3 is revised. “Organizational structure” sub-title added.</p> <p>Response 1: Section 4.3 is revised, responsibilities added.</p>	<p>Review-1:</p> <p>Please indicate the responsibilities of each occupational group in the organization chart in Section 4.3 of the MR.</p> <p>Review-2:</p> <p>Ok Closed (The responsibilities were added.)</p>
<p>CAR-18</p> <p>Please provide the information about the cross-checked method used in the Section 4.3 of the MR.</p>	4.3.6	Added to the section 4.3.: “Electricity generation data from EPIAŞ is crosschecked onsite power meters readings in the form OSF (Otomatik Sayaç Formu -Automatic Meter Form) records.”	<p>Review-1:</p> <p>Ok Closed (The cross-checked method was indicated in Section 4.3 of the MR.)</p>
CAR-19	5.1.2	Excel sheet is revised and includes baseline	Review-1:

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
Please indicate the baseline emission values for each month in the ER Calculation Excel sheet.		emission calculations Response 1: Excel sheet is revised.	Rounding down function and displaying emission reduction values as integers must be done for each month in the ER Calculation Excel sheet (i.e. Column H and Column K in the Excel sheet.) Please correct the relevant values in the ER Calculation Excel sheet. Review-2: Ok Closed (Column H and Column K were revised accordingly.)
CAR-20 a) Please indicate the project emission values for each month in the ER Calculation Excel sheet. b) Please indicate the power density calculation in the ER Calculation Excel sheet as well.	5.2.2	a) Excel sheet is revised and includes project emission values. b) Excel sheet is revised. Response 1: Excel sheet and PD Section 5.2 are revised. 10.433 MWe value is taken for calculation.	Review-1: a) Ok Closed (The project emission values were indicated in the ER Calculation Excel sheet.) b) The MWe value must be used in calculating power density. Therefore, please correct the power density calculation in Section 5.2 of the MR and ER Calculation Excel sheet. Review-2: b) Ok Closed (The power density calculation was revised correctly.)
CAR-21 Please indicate the leakage emission values for each month in the ER Calculation Excel sheet.	5.3.2	Excel sheet is revised and includes leakage emission values.	Review-1: Ok Closed (The leakage emission values were indicated in the ER Calculation Excel sheet.)
CAR-22	5.4.4	a) Relevant formula added to the Section	Review-1:

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
<p>a) Please include the relevant formulae for the calculation of net GHG emission reductions and removals in the Section 5.4 of the MR.</p> <p>b) Please include the achieved and estimated "ER Comparison" calculation in the ER Calculation Excel sheet and MR.</p>		<p>5.4.</p> <p>b) Comparison table is added to the excel sheet. Response 1: PD and Excel sheet is revised for the years 2016 and 2020.</p> <p>c) Response 1: Excel sheet is revised for the years 2016 and 2020.</p>	<p>a) Ok Closed (The relevant formulae was indicated in Section 5.4 of the MR.)</p> <p>b) Please revise the PD emission reduction estimates in the ER Calculation Excel sheet, taking into account that 2016 and 2020 have 366 days.</p> <p>c) Please demonstrate which formula was used in PD emission reduction estimates for 2014 and 2020 in the ER Calculation Excel sheet.</p> <p>Review-2:</p> <p>b) Ok Closed (The ER Excel sheet was revised accordingly.)</p> <p>c) Ok Closed (The formula was added.)</p>
<p>CL-1</p> <p>Please indicate the closest settlement and its distance to the project activity in the Section 1.7 of the MR.</p>	1.7.1	<p>ADDED to the Section 1.7.</p> <p>Closest residential area to the project site is the Dibek Mahallesi, which is about 5 km away by road at the downstream.</p>	<p>Review-1:</p> <p>Ok Closed (The closest settlement was indicated in Section 1.7.)</p>
<p>CL-2</p> <p>Please clarify the reason of using ACM0002 instead of AMS-I.D for the calculation of the project emissions because in the registered PD, ACM0002 was not used.</p>	1.8.1.1	<p>AMS-I.D. states the use of ACM0002 for calculating project emissions.</p> <p>AMS-I.D. Version 17.0, p.12 : "For most renewable energy project activities, PE_y = 0. However, for the following categories of project activities, project emissions have to be considered following the procedure described in the most recent version of</p>	<p>Review-1:</p> <p>Ok Closed (The clarification was made.)</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
		“ACM0002: Grid-connected electricity generation from renewable sources”: This is added as a dipnote to the MR, Section 5.2.	
CL-3 Please remove the repeating year “2014” from the Section 3.1 of the MR.	3.1.1	Repeating value, 2014, deleted.	Review-1: Ok Closed (The repeating value was deleted.)
CAR-23 Please correct the “Current Project Contributions” and “Contributions over Project Lifetime” of SDG13 in “SDGs” sheet in the ER Excel document.	ITR	Both MR and excel are compatible. Corrected.	Review-1: Ok Closed (The “SDGs” sheet was revised accordingly.)
CAR-24 Please correct the “footnote 13” in Section 1.11 of the MR.	ITR	Footnote 13 (tCO2) value corrected.	Review-1: Ok Closed (The footnote was revised accordingly.)
CAR-25 Please update the Appendix II in the MR based on the latest ER Calculation Excel sheet (e.g. the achieved ER of 2014, the total achieved ER and so on).	ITR	AnnexII 2014 tCO2 corrected.	Review-1: Ok Closed (Appendix II was revised accordingly.)
CAR-26 In the “ERs Calculations 2014-2020” sheet in the Excel document, there is a statement as “First Monitoring Period: 10 April 2014 – 11 April 2022”. Please correct the monitoring period in this statement in the Excel sheet.	ITR	Corrected.	Review-1: Ok Closed (The statement was corrected.)
CAR-27 Please correct the “Current Project	ITR	Added to the Section 1.11: Project, during the first monitoring period	Review-1: Ok Closed (Section 1.11 was

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
Contributions" of SDG7 in Section 1.11 considering the total electricity generation in the current monitoring period.		from 11 April 2014 to 10 April 2020, generated 109,226.83 MWh renewable electricity to the TNGS.	revised accordingly.)
CAR-28 Please correct the "Contributions Over Project Lifetime" in "ERs Calculations 2014-2020" sheet in the Excel document.	ITR	Corrected. Electricity generation corrected from 10.06 to 109.22 GWh, Karbon emission values for the monitoring corrected also. MR and Excel now is compatible.	Review-1: Ok Closed (The Excel sheet was revised accordingly.)
CAR-29 Please revise the "Value Monitored" of $EG_{facility,y}$ parameter in Section 4.2 because the value should be the achieved one not the expected one.	ITR	Section 4.2 is revised to include achieved $EG_{facility,y}$ by year. Expected value deleted.	Review-1: Ok Closed (The "Value Monitored" row was revised correctly.)
CAR-30 In the registered PD, PE_y is also a monitoring parameter. Therefore, please add this parameter in Section 4.2 of the MR.	ITR	<p>We did a mistake in PDD, we should add the PE_y as a monitoring parameter. Base on this statement , PE_y is neglected that is why we did not add to the MR report. AMS-I.D, p.12.</p> <p>For most renewable energy project activities, $PE_y = 0$. However, for the following categories of project activities, project emissions have to be considered following the procedure described in the most recent version of "ACM0002: Grid-connected electricity generation from renewable sources": (a) Emissions related to the operation of geothermal power plants (e.g. noncondensable gases, electricity/fossil fuel consumption);</p>	Review-1: Ok Closed (The clarification was made.)

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
		(b) Emissions from water reservoirs of hydro power plants.	
CAR-31 Please correct the "Calibration Frequency" in Section 4.3 of the MR.	ITR	Calibration frequency corrected as 10 years.	Review-1: Ok Closed (The calibration frequency was revised correctly.)

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

APPENDIX 2: VERIFICATION TEAM AND ITR COMPETENCE

Mr. Rohit BADAYA holds a Master's degree in "Nanotechnology" and a Bachelor's degree in "Pulp and Paper Engineering" from the Indian Institute of Technology Roorkee (IIT Roorkee). He is also an Energy Auditor, certified by the Bureau of Energy Efficiency, Ministry of Power, Govt. of India. Rohit has more than 13 years of work experience in the area of Climate Change (CDM, GS, VCS) and has worked for various DOEs/VVBs in the past, including "TÜV Nord", "PJRCES Inc." and "KBS Certification Services Private Limited", where he worked as a Team Leader, Validator/Verifier, Technical Expert, ITR, Manager (Technical & Certification) and Quality Manager. Within the context of CDM/GS/VCS, Rohit is a Technical Expert for Technical Areas TA 1.1 (Thermal energy generation from fossil fuels and biomass including thermal electricity from solar), TA 1.2 (Energy generation from renewable energy sources), TA 2.1 (Energy Distribution), TA 3.1 (Energy Demand), TA 13.1 (Waste Handling and Disposal) and TA 13.2 (Manure). Rohit has a record of accomplishment of more than 200 projects as Team Leader, Validator, Verifier, Technical Expert and Technical Reviewer. He is well versed with various local regulations related to CDM/GS/VCS projects, located in countries in Africa, Asia as well as in Turkey. With re-carbon, Rohit is a free-lance Team Leader and ITR.

Mr. Sandeep KANDA holds a B.Sc. degree in "Mechanical Engineering", a M.Sc. degree in "Energy Systems Engineering" from the Indian Institute of Technology/Bombay and a Post Graduate Diploma in "Industrial Safety & Environmental Management" from the National Institute of Industrial Engineering in India. He has more than ten years of work experience with auditing and consultancy firms, seven years thereof with Designated Operational Entities under the CDM. He is experienced in working on diversified areas of energy and environmental management, including policies, Clean Development Mechanism (CDM), Corporate Sustainability Reporting (CSR) Audits, energy audits, utility audits and product development. Sandeep has audited more than 30 CDM projects as an ITR, 40 projects as a Team Leader and 7 PoAs in various capacities, covering a broad range of sectoral scopes, such as Energy industries (renewable-/non-renewable), Energy distribution, Energy demand, Manufacturing industries, Chemical industries, Transport, Metal production, Waste handling & disposal and Agriculture. With re-carbon, Sandeep is a free-lance Team Leader and ITR

Ms. Öykü YAKUPOĞLU holds a B.Sc. degree in "Environmental Engineering" from Middle East Technical University/Ankara and currently undergoes a M.Sc. program in "Chemistry". She is experienced in ISO 14001: 2015 - Environment Management System, ISO 50001: 2018- Energy Management System, ISO 45001: 2018 - Occupational Health and Safety, Management System, ISO 9001: 2015 - Quality Management System Internal Auditor, ISO 14001: 2015 - Environment Management System Internal Auditor and an ISO 50001: 2018-Energy Management System Internal Auditor. With re-carbon, Öykü is an internal Validator/Verifier and Team Leader Trainee.

Appendix 2-1: Appointment Certificates

CERTIFICATE OF APPOINTMENT

Within the scope and in strict accordance to the appointments indicated below, the bearer may:

- Participate in assessments conducted by re-carbon Ltd.
- Take the appointed positions within and outside of an assessment team
- Bring specific expertise to assessments

This Certificate of Appointment is valid unless there are changes in the related requirements for the qualification and appointment and/or the personnel's work agreement is terminated. There is no defined validity period for this Certificate. However, The Certificate may be updated, suspended or cancelled at any time, as a result of performance assessments and/or other reasons as defined above.

This Appointment Certificate is granted on the date of **01.08.2022** by:

Christian Johannes
(General Manager)

This Certificate of Appointment is given to

Mr. Rohit Badaya

as a confirmation of compliance with re-carbon's internal qualification requirements for the following positions:

Gold Standard
Climate Smart by Sustainable Development

Verified Carbon Standard
A VERBA STANDARD

SECTORIAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITS	EXPERT
SS 01: Energy Industries	TA 1.1: Thermal energy generation	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
	TA 1.2: Renewables	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
SS 02: Energy distribution	TA 2.1: Energy distribution	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
	TA 2.2: Energy demand	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
	TA 12.2: Manure	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021
SS 15: Agriculture	TA 15.1: Agriculture	26.10.2021	26.10.2021	26.10.2021	26.10.2021	26.10.2021

GCC

ICR | International Carbon Registry

BioCarbon
Registry

SECTORIAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITS	EXPERT
SS 01: Energy Industries	TA 1.1: Thermal energy generation	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
	TA 1.2: Renewables	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
SS 02: Energy distribution	TA 2.1: Energy distribution	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
	TA 2.2: Energy demand	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
	TA 12.2: Manure	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
SS 15: Agriculture	TA 15.1: Agriculture	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022

COUNTRY EXPERTISE: India and Turkey

R-C-19 / 24.08.2022 - 04

90 / 92

CERTIFICATE OF APPOINTMENT



Within the scope and in strict accordance to the appointments indicated below, the bearer may:

- Participate in assessments conducted by re-carbon Ltd.
- Take the appointed positions within and outside of an assessment team
- Bring specific expertise to assessments

This Certificate of Appointment is valid unless there are changes in the related requirements for the qualification and appointment and/or the personnel's work agreement is terminated. There is no defined validity period for this Certificate. However, The Certificate may be updated, suspended or cancelled at any time, as a result of performance assessments and/or other reasons as defined above.

This Appointment Certificate is granted on the date of **01.08.2022** by:


Christian Johannes
(General Manager)

This Certificate of Appointment is given to

Mr. Sandeep Kanda

as a confirmation of compliance with re-carbon's internal qualification requirements for the following positions:



Gold Standard
Climate Resilient & Sustainable Development



REGIONAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
SS 01: Energy industries	TA 1.1: Thermal energy generation	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
	TA 1.2: Renewable	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
SS 02: Energy distribution	TA 2.1: Energy distribution	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
SS 03: Energy demand	TA 3.1: Energy demand	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
	TA 12.2: Manure	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022
SS 15: Agriculture	TA 15.1: Agriculture	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022	01.01.2022



ICR International Carbon Registry

BioCarbon Registry

REGIONAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
SS 01: Energy industries	TA 1.1: Thermal energy generation	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										
	TA 1.2: Renewable	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										
SS 02: Energy distribution	TA 2.1: Energy distribution	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										
SS 03: Energy demand	TA 3.1: Energy demand	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										
	TA 12.2: Manure	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										
SS 15: Agriculture	TA 15.1: Agriculture	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022										

COUNTRY EXPERTISE:

China, India, Indonesia, Mexico, Nepal, Philippines, Tanzania, Thailand, Türkiye, Vietnam

CERTIFICATE OF APPOINTMENT



Within the scope and in strict accordance to the appointments indicated below, the bearer may:

- Participate in assessments conducted by re-carbon Ltd.
- Take the appointed positions within and outside of an assessment team
- Bring specific expertise to assessments

This Certificate of Appointment is valid unless there are changes in the related requirements for the qualification and appointment and/or the personnel's work agreement is terminated. There is no defined validity period for this Certificate. However, The Certificate may be updated, suspended or cancelled at any time, as a result of performance assessments and/or other reasons as defined above.

This Appointment Certificate is granted on the date of **01.08.2022** by:

Christian Johannes
(General Manager)

This Certificate of Appointment is given to

Ms. Öykü Yakupoğlu

as a confirmation of compliance with re-carbon's internal qualification requirements for the following positions:



Gold Standard
Climate Resilient & Sustainable Development



REGIONAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
SS 01: Energy industries	TA 1.1: Thermal energy generation					
	TA 1.2: Renewables	30.09.2022	30.09.2022			30.09.2022
SS 02: Energy distribution	TA 2.1: Energy distribution					
SS 03: Energy demand	TA 3.1: Energy demand					
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater TA 12.2: Manure					
SS 15: Agriculture	TA 15.1: Agriculture					



ICR International Carbon Registry

BioCarbon
Registry

REGIONAL SCOPE	TECHNICAL AREA	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
SS 01: Energy industries	TA 1.1: Thermal energy generation					
	TA 1.2: Renewables	30.09.2022	30.09.2022			30.09.2022
SS 02: Energy distribution	TA 2.1: Energy distribution					
SS 03: Energy demand	TA 3.1: Energy demand					
SS 12: Waste handling and disposal	TA 12.1: Solid waste and wastewater TA 12.2: Manure					
SS 15: Agriculture	TA 15.1: Agriculture					

COUNTRY EXPERTISE:

Turkey