



**Verified Carbon
Standard**

CIRAKDAMI HYDRO ELECTRICITY POWER PLANT

CP RENEWAL VALIDATION REPORT



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Project title	Cirakdami Hydro Electricity Power Plant
Project ID	1506
Crediting period	28-June-2022 to 27-June-2032
Original date of issue	08-June-2024
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Version	4

VCS Standard Version	4.7	
Client	Aydem Yenilenebilir Enerji A.S.	
Prepared by	Re Carbon Gözetim Denetim ve Belgelendirme Ltd. Şti.	
Approved by	Technical Reviewer and Decision Maker	CMD Review
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Work carried out by	Selen CİLASUN- Validation Team Leader	Helin TÜZER- Verifier Trainee

Summary:

The project includes the installation of a hydroelectric power plant (HEPP) with an installed capacity of 49.1 MWe and annual net electricity generation is estimated to be 140,000 MWh and is located Aksu River, Çırakdamı villages in Giresun province 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 2 Vertical Francis turbines, each having a capacity of 24.55 MWe, amounting a total installed power of 49.1 MWe. The electricity is transmitted to the nearest substation Çırakdamı TM on 154 KV bara via approximately 28 km transmission line.

Validation is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs) validation.

The project activity and the PD version 0.8 dated 31/10/2024 are assessed against the requirements of the approved consolidated baseline and monitoring Methodology "ACM0002 "Grid-connected electricity generation from renewable sources" Version 22.0. and VCS standard version 4.7

The objective of this validation activity is to have an independent third party for the assessment of the project design, and to ensure a thorough assessment of the proposed project activity against the applicable VCS and CDM requirements.

During this validation 34 Corrective Action Requests (CARs) and 08 CLs were raised all of which were resolved by either revising the Monitoring Report or by sending objective evidence to the validation team. There hasn't been any FARs issued during the validation process.

Re Carbon Ltd. hereby confirms that the level of assurance of this validation 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 28/06/2022 and 27/06/2032:

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)
2022	33,108	0	0	33,108
2023	64,624	0	0	64,624
2024	64,624	0	0	64,624
2025	64,624	0	0	64,624
2026	64,624	0	0	64,624
2027	64,624	0	0	64,624
2028	64,624	0	0	64,624
2029	64,624	0	0	64,624
2030	64,624	0	0	64,624
2031	64,624	0	0	64,624
2032	31,515	0	0	31,515
Total	646,239	0	0	646,239

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1 INTRODUCTION

1.1 Objective

Re Carbon Ltd. was appointed by “Aydem Yenilenebilir Enerji A.Ş.” to perform the CP Renewal validation of the “Cirakdami Hydro Electricity Power Plant” in “Turkey” through a service agreement, dated 26/05/2023. The objective of this CP Renewal validation activity is to have an independent third party for the assessment of the project design, and to ensure a thorough assessment of the proposed project activity against the applicable VCS and CDM requirements. In particular;

- the project's baseline was assessed against “ACM0002: Grid-connected electricity generation from renewable sources” version 22.0”
- the project's monitoring plan was assessed against “ACM0002: Grid-connected electricity generation from renewable sources” version 22.0”
- the project's additionality justification was assessed against “Tool 01/ Tool for the demonstration and assessment of additionality” version 07.0.0”
- Tool 01 Tool for the demonstration and assessment of additionality version 07.0
- Tool 07 Tool to calculate the emission factor for an electricity system version 07.0
- Tool 10 Tool to determine the remaining lifetime of equipment version 01.0
- Tool 11 Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period version 03.0.1
- the project's compliance with the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures, as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country's legislation and sustainability criteria
- CDM Validation and Validation Standard for project activities version 3.0
- CDM Project Standard for Project Activities version 3.0
- VCS Standard Version 4.7

CP Renewal Validation is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified carbon units (VCUs).

1.2 Scope and Criteria

The scope of the CP Renewal validation is the independent and objective review of the VCS Project Description (PD). The PD is reviewed against the relevant criteria (see section 1.1) and decisions by the VCS Organization, including the approved baseline and monitoring methodology. The validation was based on the guidance given in the CDM Validation and Validation Standard for project activities version 3.0, CDM Project Standard for project activities version 3., and VCS Standard version 4.7

The validation team has employed a risk-based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the PD. The focus of the validation team is to identify significant risks for the project implementation and the generation of VCUs. The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

The only purpose of the CP Renewal validation is its usage during the CP Renewal process as 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 validation opinion that go beyond that purpose.

1.3 Reasonableness of Assumptions

Re Carbon Ltd. hereby confirms that the level of assurance of this validation 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

Cirakdami Hydro Electricity Power Plant is operated by Aydem Yenilenebilir Enerji A.Ş. The project activity capacity is 49.10 MWe and annual net electricity generation is estimated to be 140,000 MWh and is located in the Aksu River, Çirakdami villages in Giresun province in Turkey line with the electricity generation license and provisional acceptance protocols and the project also supports the sustainable economic development in the region. The technical description of the project activity is as follows:

Table 1: Turbine and generator specifications

Turbine		
Type: Vertical Axis Francis	Number of units: 3	Unit Flow Rate: 27.50 m³/s
	Project Flow Rate: 16 m³/s	
Total Energy: 140.000 MWh/year	Primer Energy: 30.84 GWh/year	Secondary Energy: 135.15 GWh/year
Project flow rate: 27.50 m³/s		
Regulator		
Type: Tirol Type		
Elevation of the river bed: 488.00 m	Elevation of the foundation: 486.00 m	Height of the regulator from the River Bed: 4.00 m

The start date of the project activity is 28/06/2012 which is the date when the project is the Commissioning Date for Unit 2, and the electricity was first supplied to the grid which is validated through the provisional acceptance protocol. The first crediting period is from 28/06/2012 to 27/06/2022, the second crediting period is from 28/06/2022 to 27/06/2032 with two times renewable crediting period of 10 years. The first monitoring period is from 28/06/2012–30/09/2020. The second monitoring period is from 01/10/2020 to 31/12/2021. The third monitoring period is from 01/01/2022 to 27/06/2022.

2 VALIDATION PROCESS

2.1 Method and Criteria

The Validation TL conducts a review of the responsible party's GHG information in developing a validation plan to conform to the requirements of ISO 14064-3:2019 and considering the requirements specified by the VCS Standard as described below.

Assignment of competent personnel to carry out the activities, is performed by the Sales Manager using the Contract Review Form in pre-engagement stage.

Determination of the validation activities is performed using the Re Carbon planning forms such as Strategic Analysis Form, Assessment Planning Form-VCS and Evidence Gathering Planning Form as appropriate, based on the GHG project's characteristics and the client needs,

Assessment of the risk of material error concerning the information is evaluated by the team leader using the Re Carbon Validation Risk Assessment Form,

To confirm the times and logistics required to carry out the validation activities, "Assessment Planning Form" is prepared by the Team Leader is submitted to the Client for approval.

The Client assesses the prepared “Assessment Planning Form” and approves the form or request changes in case team members have not been allocated sufficient time for some of the tasks. If more time is required during the site visit for any particular task due to the project specific and unforeseeable reasons, the revised “Assessment Planning Form” is submitted by the Team Leader to the Client by providing detailed justification. In this case, Client shall consider the provided justification and approve the form or reject the request within 2 working days as soon as possible depending on the urgency of the situation (e.g. being validation team on the site in a remote location is a situation requiring urgent action in a short time), but not later than 2 working days.

The “Assessment Planning Form” is sent to the Client(s) by a team member for comments and further arrangements following its approval process.

Validation schedule and duration of the validation activities

Activity	Timeline		Total Days
	From	To	
Desk Review	10/10/2023	24/10/2024	381
Review of the PD version 01	21/07/2023	29/10/2023	101
Site Visit	17/10/2023	17/10/2023	1
Issuance of the Validation Protocol version 01	18/10/2023	29/10/2023	12
Review of PPs Initial Set of Responses	29/10/2023	17/01/2024	81
Issuance of the Validation Protocol version 02	17/01/2024	29/02/2024	44
Review of PPs Second Loop Responses	13/03/2024	06/05/2024	55
Issuance of the Validation Protocol version 03	06/05/2024	06/05/2024	1
Review of PPs Third Loop Responses	06/05/2024	07/05/2024	2
Issuance of the Validation Protocol version 04	07/05/2024	07/05/2024	1
Review of PPs Fourth Loop Responses	13/05/2024	10/06/2024	29
Closing of all the CARs and CLs	10/06/2024	10/06/2024	1
Issuance of the Validation Report version 01	05/06/2024	10/06/2024	6
ITR Process	11/06/2024	24/06/2024	14
Issuance of the Validation Report version 02	15/06/2024	24/06/2024	10
Submission for Final Approval	24/06/2024	24/06/2024	1
Submission to the PP	25/06/2024	25/06/2024	1
Revisions based on VCS review comments round 1	17/10/2024	24/10/2024	8
Revisions based on VCS review comments round 2	31/10/2024	11/11/2024	12

2.2 Document Review

The basis for the validation activity is the PD version 01, dated 10/06/2012, which was submitted to the validation team on 27/06/2022. This PD was revised several times due to the

raised CARs and CLs, with version 08 dated 31/10/2024 being the final version. The PD was assessed against:

- ACM0002 “Grid-connected electricity generation from renewable sources.” Version 22.0”
- Tool 01/ Tool for the demonstration and assessment of additionality” version 07.0.0”,
- Tool 07/ Tool to calculate the emission factor for an electricity system version 07.0,
- Tool 10/ Tool to determine the remaining lifetime of equipment version 01.0,
- Tool 11/ Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period version 03.0.1
- the Host Country criteria
- CDM Validation and Validation Standard for project activities version 3
- CDM Project Standard for Project Activities version 3
- VCS Standard Version 4.7
- other relevant documents, rules and regulations listed in section 1.1 of this report

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

Table 2-2: List of documents reviewed

Document Number	Document Name	Version	Date (dd/mm/yyyy)
D01	Çırakdamı WPP PD	V01	21/07/2023
D02	Çırakdamı WPP PD	V02	13/03/2024
D03	Çırakdamı WPP PD	V03	03-05-2024
D04	Çırakdamı WPP PD	V04	17/01/2024
D05	Çırakdamı WPP PD	V05	21/05/2024
D06	ACM0002	V22.0	-
D07	Technical specifications	-	-
D08	Emission Reduction Excel Sheet	V01	21/07/2023
D09	Emission Reduction Excel Sheet	V02	17/01/2024
D10	Generation License	-	14/09/2004
D11	Declaration from Project Owner	-	19/09/2023

Document Number	Document Name	Version	Date (dd/mm/yyyy)
D12	EIA Not Required Decisions	-	06/12/2019 22/01/2020 25/01/2021
D13	Power Purchase agreement	-	21/06/2019
D14	System usage agreement	-	25/01/2019
D15	Water usage Permission	-	23/12/2022
D16	Logbook	-	21/07/2023
D17	KMZ Document	-	22/04/2022
D18	First Index Protocol	-	19/11/2020
D19	Calibration Certificate	-	-
D20	Meter Control Test	-	22/06/2020
D21	Provisional Acceptance Protocols	-	28/06/2012 26/04/2013
D22	Single Line Diagram	-	-
D23	Social Security Records		28/06/2022- 27/06/2032
D24	Transition Annex	-	
D25	Waste Water Records	-	24/03/2022 21/06/2022
D26	Hazardous Waste Records	-	10/01/2022
D27	VCS Standard	4.7	-
D28	VCS Program Guide	4.4	-
D29	EPIAS records	-	28/06/2022- 27/06/2032
D30	Validation Report of 1 st Crediting Period	V02	21/12/2013
D31	Çırakdamı WPP PD	V06	14/06/2024
D32	Emission Reduction Excel Sheet	V03	14/06/2024

Document Number	Document Name	Version	Date (dd/mm/yyyy)
D33	Çırakdamı WPP PD	V07	23/10/2024
D34	Çırakdamı WPP PD	V08	31/10/2024

2.3 Interviews

During the CP Renewal period, follow-up interviews were performed by the validation team to further analyze the correctness and accurateness of the information provided.

The list of individuals who were interviewed during the physical validation site visit, executed on 17/10/2023 is given in Table 2-3 below:

Table 2-3: List of individuals interviewed

Reference Number	Means of Interview ¹	Full Name	Title	Organization
I01	SV	Burcu BAŞ	Female Resident	Kurtulmuş Village
I02	SV	Emine BAY	Serves Worker	Aydem Energy
I03	SV	Eren ÖZKAYA	Business Chief	Aydem Energy
I04	SV	Ali KARAHAN	Administration Manager	Aydem Energy
I05	SV	Haşim BEDİR	Business Manager	Aydem Energy
I06	SV	Irmak SUBAŞI	Project Manager	GTE Carbon
I07	SV	Mehmet PİLTAN	Command Operator	Aydem Energy

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

Reference Number	Means of Interview ¹	Full Name	Title	Organization
108	SV	Kemal SARIYILDIZ	Electrical Technical Chief	Aydem Energy
109	SV	Durmuş Hasan HAKİM	Command Operator	Aydem Energy

2.4 Site Visits

As a part of the validation activities a physical site visit was executed to the project activity's location, details of which can be seen in Table 2-4 below:

Table 2-4: Site visit details

Date	17/10/2023	
Location	Giresun	
Participant	Company Name	Role in the Organization / Role in the Site Visit
Ali KARAHAN	Aydem Energy	Administration Manager
Haşim BEDİR	Aydem Energy	Business Manager
Burcu BAŞ	Kurtulmuş Village	Female Resident
Emine BAY	Aydem Energy	Personel
Eren ÖZKAYA	Aydem Energy	Business Chief
Mehmet PİLTAN	Aydem Energy	Command Operator
Kemal SARIYILDIZ	Aydem Energy	Electrical Technical Chief
Durmuş Hasan HAKİM	Aydem Energy	Command Operator
Irmak SUBAŞI	GTE Carbon	Project Manager
Selen CİLASUN	Re-Carbon	Team Leader
Points Verified		Source of Information
Implementation and operation of the proposed VCS project activity as per the registered PD		Document review, on-site visit

Review of information flows for generating, aggregating, and reporting the monitoring parameters	Document review, on-site visit and interviews with the local stakeholders
Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the PD	Interviews with the local stakeholders
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 local stakeholders
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 and interviews with the local stakeholders

2.5 Resolution of Findings

The CP Renewal validation of the proposed VCS project activity includes the following phases:

- Assessment whether the project design of the proposed VCS project activity meets the relevant VCS requirements, via a desk review of the PD between 10/10/2023 and 11/11/2024
- Assessment whether the applied methodology “ACM0002 “Grid-connected electricity generation from renewable sources.” Version 22.0.”, had been applied correctly, including the baseline selection and monitoring plan.

- Assessment of the additionality argument of the project activity against the rules and guidance given in “TOOL01, Once the additionally tool is included in an approved methodology, its application by project participants using this methodology is mandatory.”.
- A physical site visit was executed on 17/10/2023 in order to assess the implementation process of the project activity and to confirm stakeholders’ comments.
- Assessment of data and calculation of greenhouse gas emission reductions.
- Issuance of the validation report
- Independent technical review (ITR)
- Approval of the validation report and request of registration

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

The Validation Protocol consists of one table:

- Table 1 (Resolution of Corrective Action, Forward Action and Clarification Requests)

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

Table 2-5: Explanation about Table-1 in the Validation Protocol

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

The Validation Protocol is written by the validation team in line with the descriptions above. All CARs, CLs and FARs are listed in a transparent and clear manner.

During the validation period, a Validation Protocol (attached in Appendix-1 to this validation report) was used to submit the findings to the project participants.

In line with Re Carbon Ltd. internal terminology and VCS Standard version 4.7, the team reports the non-conformities in the 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 are explained below.

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

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

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

The Validation team raises a **FAR** during the validation to highlight issues related to project implementation that require a review during the first verification of the project activity.

According to these principles, a total of 34 CARs, 08 CLs and 00 FARs were raised; all of which are listed in the Validation Protocol.

The appointment process of the validation team considers the technical area(s), sectoral scope(s), and relevant host country experience required amongst team members for the accurate and thorough assessment of the project design. The relevant VCS validation and previous ITR experiences are also assessed during the selection of the team members and the Independent Technical Reviewer (ITR), respectively. The validation team and ITR were assigned to this validation activity on 18/05/2023, taking all the above factors into consideration and as a result of the contract review process. On 10/06/2024 team change has been done. Ms. Selen CİLASUN has become the team leader of the project.

The validation team members and ITR are given in Table 2-7 below:

Table 2-7: Validation team and ITR details

Name	Role	Host Country Experience	Scope Coverage	Technical Expertise	Financial Expertise	Involv.
Mr. Sandeep KANDA	Previous Team Leader	☒	☒	☒	☐	A, DR, R, RA
Ms. Selen CİLASUN	Current Team Leader	☒	☒	☒	☐	A, DR, R, SV
Mr. Rohit BADAYA	ITR	☒	☒	☒	☐	ITR
Ms. Helin Tüzer	Trainee Verifier	☐	☐	☐	☐	A, DR, R

* 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

Forward Action Requests

The Validation team raises a FAR during the validation in order to highlight issues related to project implementation that require review during the first verification of the project activity as explained in the Section 2.5.

According to these principles a total of 00 FARs were raised; all of which are listed in the Validation Protocol. Details of these FARs are explained below.

3 VALIDATION FINDINGS

3.1 Project Details

“Çirakdamı Hydro Electricity Power Plant” is operated by “Aydem Yenilenebilir Enerji A.S.”. The project activity is located in Giresun Province, Turkey. The project uses the water of Aksu River to generate electricity and supply it into the National Grid of Turkey. The hydropower plant is connected to the Çirakdamı TM (154 kV) transformer station via a 28-km transmission line.

The project activity consists of 2 vertical axis Francis turbines with the installed capacity of 29.33 MWm /24.55 MWe each. Therefore, the total installed capacity of 49.10 Mwe.

The first crediting period of the project activity is in between 28/06/2012-27/06/2022. Therefore, the second crediting period starts from 28/06/2022 and it ends on 27/06/2032.

The estimated annual electricity generation value is 140,000 MWh as per the generation license. Therefore, the estimated total electricity generation for the second crediting period is 1,400,000 MWh. In addition, during the first crediting period, the estimated annual electricity generation was 165,990 MWh/year, which has been taken from the feasibility report. However, for the second crediting period, this value has been revised as 140,000 MWh/year, based on the Generation License. VVB confirmed that estimated electricity generation value, 140,000 MWh/year is more reasonable.

The estimated annual emission reduction value is calculated as 64,624 tCO₂e with taking the emission factor as 0.4616 tCO₂e/MWh. Therefore, the estimated total emission reduction value for the second crediting period is 646,239 tCO₂e.

The project scale is a “large” in line with VCS rules and requirements due to the estimated annual average emission reductions (which is less than 300,000 tCO₂e) and since the project is a greenfield project activity, pre-project conditions are same with the baseline scenario as discussed in the Section 3.3.4 of the validation report.

The installed capacity and the expected annual generation amount of the project have been checked through the generation license document dated as 14/09/2004.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Audit history	Audit history provided in the PD/ Section 1.2 is checked via document review of the previous validation report.
Sectoral scope	1
AFOLU project category, if applicable	N/A
Project activity type	Energy Industries (renewable/non-renewable sources)
General eligibility of the project to participate in the VCS Program	Cirakdami HEPP project is grid-connected renewable power generation project that applies a methodology (ACM0002) eligible under VCS program.
AFOLU project eligibility, if applicable	N/A
Transfer project eligibility, if applicable	N/A
Project design	Single
Project ownership	Aydem Yenilenebilir Enerji A.S.
Project start date	28/06/2012
Project crediting period	28-June-2022 to 27-June-2032
Project scale	Project
Likelihood of achieving estimated GHG emission reduction or removals	64,624 tCO _{2e} /yr
Technologies and measures implemented by the project activity or activities	Hydro power plant

Implementation schedule of the project activity or activities	The Electricity Production License is granted		14/09/2004
	Project Registration Date		11/01/2018
	EIA Exemptions certification issued		27/04/2006 06/05/2009
	Amendment to the Water Usage Agreement Signed		26/08/2004
	Grid Connection		07/12/2010
	Revised TEİAŞ Agreement		25/01/2019
	Commissioning Date for Unit 2		28/06/2012
	Commissioning Date for Unit 1		26/04/2013
	Project Start Date		28/06/2012
	The first crediting period		28/06/2012 – 27/06/2022 (10 years)
	The second crediting period		28/06/2022 – 27/06/2032 (10 years)
Project location	Aksu River, within the jurisdiction of Dereli Town of Giresun Province.		

Conditions prior to project initiation	The project is a renewable energy project, prior the project initiation, there was no other hydroelectric power plant installation at the project site.
Project compliance with applicable laws, statutes and other regulatory frameworks	There is no commercially sensitive information about the project activity. Hence, this section is not applicable.
Double counting and participation under other GHG programs	No Double Issuance
No double claiming with emissions trading programs or binding emission limits	No Double Issuance
No double claiming with other forms of environmental credit	No Double Issuance
<i>Supply chain (Scope 3) emissions double claiming</i>	N/A
Sustainable development contributions	• SDG-7 on access to affordable, reliable, and sustainable energy, as the project is not relying on imported fossil fuels. • SDG-8 is to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. In this project, occupational trainings and occupational health trainings were given regularly. The project providing decent and secure work environment. • SDG-12 Responsible consumption and production as the hydroelectric power plants are producing clean source of energy. They are replacing the fossil fuel based national grid. Because of that these plants drive people to consume more sustainable type of energy.SDG-13 On urgent action to combat climate

	change, as the project is replacing the fossil fuel based national grid and it is producing emission reductions.
Additional information relevant to the project	N/A

3.2 Safeguards and Stakeholder Engagement

3.2.1 Stakeholder Engagement and Consultation

3.2.1.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	Stakeholders are identified through consultation meetings, and the project manager remains accessible to locals at all times. Thus far, no issues have arisen regarding the project or communication methods. If there are any inputs or grievances, locals can express them directly or through the mukhtar. Furthermore, individuals from the company have also participated in these consultation meetings alongside locals and mukhtars.
Legal or customary tenure/access rights	No expropriation was necessary throughout the implementation period, and there are no lands occupied by indigenous peoples (IPs). The project site isn't privately owned; instead, it's classified as government land within a forestry area. The government has leased the property to the project owner until the expiration of the generation license.
Stakeholder diversity and changes over time	<i>There was no sign of stakeholder diversity evolving over time.</i>
Expected changes in well-being	As per the registered PD Version 2, the project is anticipated to have no adverse effects on the well-being of stakeholders. No complaints have been received during stakeholder consultation.

Location of stakeholders	Çırakdamı HPP is located about 5 kilometers southwest of the Dereli District in Giresun Province, specifically within the boundaries of the Dereli district.
Location of resources	During the site visit VVB has been checked the project activity and it is located within the borders of Dereli district.

3.2.1.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder engagement process	The meeting was announced through notices posted on the Mukhtarship board and various locations in the surrounding settlements. These notices were provided to the Mukhtar on March 20, 2006, specifying the time and location of the meeting. Evidence documents of announcement of meeting has been provided to VVB.
Consultation outcome	The results of the consultation meeting were as follows: - Stakeholders inquired about potential job opportunities stemming from the project, to which the company's HR department assured that such opportunities would indeed be available. - The board, which includes elderly individuals, expressed appreciation for the sale of their land. Land acquisition agreements were conducted in accordance with agreed-upon protocols. Evidence documents have been provided to VVB.
Ongoing communication	A grievance box is available at a market in Dereli, allowing anyone to submit feedback regarding project activities. The box is routinely monitored, and any demands or complaints are promptly addressed by the project owner. Grievance book has been seen by VVB during the on-site visit.
Stakeholder input	There has been no input received from the stakeholders during the on-site visit.

3.2.1.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Obtaining consent	As part of the Environmental Impact Assessment (EIA) process, in compliance with Article 9 of the EIA Regulation, community meetings were arranged to secure the consent of stakeholders. (please write here which evidence was provided by the client e.g.: meeting notes, attendance lists with signatures) During these meetings, stakeholders were provided with comprehensive information regarding various aspects of the project, including details about the construction site, construction timeline, project costs, technical specifications of equipment to be utilized, potential environmental impacts, and proposed mitigation measures. Following these discussions, all stakeholders expressed satisfaction with the prospect of environmentally friendly energy production being implemented. During the on-site visit VVB has interviewed local stakeholders and they have been stated that they are satisfied with the power plant.
Outcome of FPIC discussion	EIA not required decision has been made for Çırakdamı HEPP on 27/04/2006 and it has been provided to VVB

3.2.1.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Development process	The project owner's contact details have been provided to the Dereli Village Mukhtar's Office. The project manager is available to locals at all times, and there have been no issues regarding communication or the project thus far. If there are any suggestions or grievances, locals can express them directly or through the mukhtar. The Project Provider (PP) will address all grievances throughout the entire funding period.
Grievance redress procedure	Local stakeholders can provide feedback, whether positive or negative, regarding the operation of the project activity. The Project

	Provider (PP) commits to resolving all grievances throughout the entire crediting period
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3.2.1.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
No comment received.	N/A	N/A

3.2.2 Risks to Local Stakeholders and the Environment

3.2.2.1 Management Experience

The records for training have been provided to VVB (dated 2022) VVB checked and confirmed that.

3.2.2.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human-induced risks to stakeholders' wellbeing	no risk has been identified
Risks to stakeholder participation	no risk has been identified
Working conditions	Occupational accidents stemming from the operation of vehicles, machinery, and equipment.
Safety of women and girls	no risk has been identified
Safety of minority and marginalized groups, including children	no risk has been identified
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous	Risks identified with generation of wastewater and solid wastes

materials, and chemical pesticides and fertilizers)

3.2.3 Respect for Human Rights and Equity

3.2.3.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination	no risk has been identified
Sexual harassment	no risk has been identified
Equal pay for equal work	no risk has been identified
Gender equity in labor and work	no risk has been identified
Forced labor	no risk has been identified
Child labor	no risk has been identified
Human trafficking	no risk has been identified

3.2.3.2 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk has been identified	N/A

3.2.3.3 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk has been identified	N/A

3.2.3.4 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk has been identified	N/A

3.2.3.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Process used to design the benefit sharing plan	N/A
Summary of the benefit sharing plan	N/A
Approval and dissemination of benefit sharing plan	N/A

3.2.4 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	No risk has been identified
Soil degradation and soil erosion	No risk has been identified
Water consumption and stress	No risk has been identified

3.2.4.1 Rare, Threatened, and Endangered species

Risk identified	Evidence gathering activities, evidence checked, and assessment conclusion
Species and habitat	<i>No risk has been identified</i>
Areas needed for habitat connectivity	<i>No risk has been identified</i>

3.2.4.2 Introduction of Species

There are no species introduced. Hence, this section is not applicable.

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
N/A	

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
N/A	

Evidence gathering activities, evidence checked, and assessment conclusion	
Invasive species	N/A

3.2.4.3 Ecosystem conversion

The project is not an ARR, ALM, WRC or ACoGS project. Hence, this section is not applicable.

Risks Identified	Evidence gathering activities and evidence checked
Ecosystem conversion	N/A

3.3 Application of Methodology

3.3.1 Title and Reference

The title and reference of the applied methodology and any tools by the project proponent for this project are:

Methodology/ Tool	ID	Title	Version
Methodology	ACM0002	Grid-connected electricity generation from renewable sources	22.0
CDM Tool	01	Tool for the demonstration and assessment of additionality	07.0.0
CDM Tool	07	Tool to calculate the emission factor for an electricity system	07.0
CDM Tool	10	Tool to determine the remaining lifetime of equipment	01.0
CDM Tool	11	Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period	03.0.1

It is confirmed by the Validation Team that the methodology and tools, and the specific versions of them applied by the project and referred in the VCS PD DRAFT 1506 31102024 are valid at the time of CP Renewal validation.

3.3.2 Applicability

The steps taken to assess conformance of the project with each of the applied methodology's applicability condition, and Validation Team's conclusion with respect to each applicability condition is provided in the table below:

Methodology ID	Applicability condition	Assessment and conclusion
ACM0002	This methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Install a Greenfield power plant; (b) Involve a capacity addition to (an) existing plant(s); (c) Involve a retrofit of (an) existing operating plants/units; (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s).	VVB checked during physical site visit and checked project documents (e.g. generation license) therefore confirmed information below: " CIRAKDAMI HEPP is a hydro power project type, greenfield, grid connected renewable electricity generation project. So, the project meets (a) Install a Greenfield power plant."
ACM0002	In case the project activity involves the integration of a BESS, the methodology is applicable to grid-connected renewable energy power	VVB checked during physical site visit and confirmed information below: This project does not include an integration of a

	generation project activities that: (a) Integrate BESS with a Greenfield power plant; (b) Integrate a BESS together with implementing a capacity addition to (an) existing solar photovoltaic¹ or wind power plant(s)/unit(s); (c) Integrate a BESS to (an) existing solar photovoltaic or wind power plant(s)/unit(s) without implementing any other changes to the existing plant(s); (d) Integrate a BESS together with implementing a retrofit of (an) existing solar photovoltaic or wind power plant(s)/unit(s).	BESS. Hence, this condition is N/A. a)This project does not include an integration of a BESS. Hence, this condition is N/A. b)This project does not include integration a BESS together with implementing a capacity addition to (an) existing solar photovoltaic¹ or wind power plant(s)/unit(s). Hence, this condition is N/A. c)This project does not include integration of a BESS to (an) existing solar photovoltaic or wind power plant(s)/unit(s) without implementing any other changes to the existing plant(s). Hence, this condition is N/A. d)This project does not include integration of a BESS together with implementing a retrofit of (an) existing solar
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		photovoltaic or wind power plant(s)/unit(s). Hence, this condition is N/A. e) This project does not include integration of a BESS together with a Greenfield power plant that is operating in coordination with a PSP. Hence, this condition is N/A.
ACM0002	The methodology is applicable under the following conditions: (a) Hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; (b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit started commercial operation prior to the start of a minimum historical reference period of	VVB checked during physical site visit and checked project documents therefore confirmed information below: (a) Çırakdamı HEPP is a hydro power plant unit with reservoir. (b) There were no capacity additions. (c) This project does not include an integration of a BESS. Hence, this condition is N/A. (d) This project does not include an integration of a BESS. Hence, this condition is N/A. (e) The project activity does not

	five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity; (c) In case of Greenfield project activities applicable under paragraph 5 (a) above, the project participants shall demonstrate that the BESS was an integral part of the design of the renewable energy project activity (e.g. by referring to feasibility studies or investment decision documents); <i>(d) The BESS should be charged with electricity generated from the associated renewable energy power plant(s). Only during exigencies may the BESS be charged with electricity from the grid or a fossil fuel electricity generator. In such cases, the corresponding GHG emissions shall be accounted for as project emissions following the requirements under section</i>	<i>involve PSP. Hence, this condition is N/A.</i>
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	5.4.4 below. The charging using the grid or using fossil fuel electricity generator should not amount to more than 2 per cent of the electricity generated by the project renewable energy plant during a monitoring period. During the time periods (e.g. week(s), months(s)) when the BESS consumes more than 2 per cent of the electricity for charging, the project participant shall not be entitled to issuance of the certified emission reductions for the concerned periods of the monitoring period.	
ACM0002	In case of hydro power plants, one of the following conditions shall apply: (a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or (b) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (7), is greater than 4 W/m²; or	VVB checked and confirmed during physical site visit and checked project documents (e.g. generation license) therefore confirmed information below: The project is a hydro power plant. (a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs.

(c) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (7), is greater than 4 W/m²; or

(d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is lower than or equal to 4 W/m², all of the following conditions shall apply:

(i) The power density calculated using the total installed capacity of the integrated project, as per equation (8), is greater than 4 W/m²;

(ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity;

(iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m² shall be:

a. Lower than or equal to 15 MW; and

	<i>b. Less than 10 per cent of the total installed capacity of integrated hydro power project.</i>	
ACM0002	In the case of integrated hydro power projects, project participants shall: (a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or <i>(b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and</i>	<i>VVB checked and confirmed during physical site visit and checked project documents (e.g. generation license) therefore confirmed information below:</i> The project is not an integrated hydro power project. Hence, this condition is N/A..

	<i>rainfall for minimum of five years prior to the implementation of the CDM project activity.</i>	
ACM0002	The methodology is not applicable to: (a) Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; (b) Biomass fired power plants/units.	<i>VVB checked during physical site visit and checked project documents (e.g. generation license) therefore confirmed information below:</i> The project does not include a PSP. Hence, this condition is N/A.
ACM0002	In the case of retrofits, rehabilitations, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is “the continuation of the current situation, that is to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance”.	Based on the technical expertise VVB checked and confirmed: a) The project does not involve switching from fossil fuel use to renewable energy at the site of the project activity. b) The project is not a biomass fired power plant.

ACM0002	In addition, the applicability conditions included in the tools referred to below apply.	Based on the technical expertise VVB checked and confirmed: The project does not involve retrofits, rehabilitations, replacements, or capacity additions. Hence, this condition is N/A.
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The steps taken to assess that the appropriate tool or module has been selected and Validation Team's conclusion with respect to each selected tool or module is provided in the table below:

Methodology ID	Applicability condition	Assessment and conclusion
TOOL01	The use of the "Tool for the demonstration and assessment of additionality" is not mandatory for project participants when proposing new methodologies. Project participants may propose alternative methods to demonstrate additionality for consideration by the Executive Board. They may also submit revisions to approved methodologies using the additionality tool.	There is no new methodologies proposed. Hence, this condition is N/A'. <i>Based on the technical expertise VVB checked and confirmed.</i>
	Once the additionally tool is included in an approved methodology, its application by project participants using this methodology is mandatory.	The additionality tool is applied using this methodology. VVB checked and confirmed.

Methodology ID	Applicability condition	Assessment and conclusion
TOOL07	This tool may be applied to estimate the OM, BM and/or	<i>The project activity supplies electricity to a grid. This can</i>

	CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g., demand-side energy efficiency projects).	<i>be checked via connection agreement or EPIAS records. VVB checked and confirmed. It mets.</i>
	Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two sub-options under the step 2 of the tool are available to the project participants, i.e., option IIa and option IIb. If option IIa is chosen, the conditions specified in “Appendix 1: Procedures related to off-grid power generation” should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid	<i>Based on the technical expertise VVB checked calculations and references and confirmed. These criteria met.</i>

	power plants in the electricity system; and that factors which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity.	
	In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.	<i>This condition is N/A VVB checked and confirmed.</i>
	Under this tool, the value applied to the CO ₂ emission factor of biofuels is zero.	The project does not involve biofuels based on the technical expertise VVB checked and confirmed.

Methodology ID	Applicability condition	Assessment and conclusion
TOOL10	Option (a): Use manufacturers information for the technical lifetime of equipment and compare to the date of first commissioning. In this option, the remaining lifetime is determined as a difference between the technical lifetime and the operational time. This option can only be applied if: (i) Manufacturer's information for the technical	N/A <i>VVB checked and confirmed.</i>

		lifetime of the equipment is available;	
	(ii)	The project participants can demonstrate that the equipment has been operated and maintained according to the recommendations of the equipment supplier to ensure that the technical lifetime specified by the manufacturer is not reduced; and	
	(iii)	There are no periodic replacement schedules or scheduled replacement practices specific to the industrial facility, that require early replacement of equipment before the expiry of the technical lifetime;	
	(iv)	The equipment has no design fault or defect and did not have any industrial	

	accident due to which the equipment cannot operate at rated performance levels.	
	Option (b): Obtain an expert evaluation. In this option, an independent expert having relevant experience in evaluating the remaining lifetime for the type of equipment can be requested to determine the remaining lifetime of the equipment. The information that could be evaluated includes an analysis of • The operational history of the equipment to identify the past performance, equipment retrofits, failures/accidents, capacity upgrades/degradations, replacements etc.; • The current operation and maintenance practices; • Documented specific sectoral/industry practices for replacements; Conducting tests on the equipment, such as magnetic particle	N/A VVB checked and confirmed.

	examinations, ultrasonic testing, metallurgical analysis, etc.	
	Option (c): Use default values. In this option, project participants may use the following default values for the technical lifetime and determine the remaining lifetime as the difference of the technical lifetime and the operational time. This option can only be applied if: (i) The project participants can demonstrate that the equipment has been operated and maintained according to the recommendations of the equipment supplier; (ii) There are no periodic replacement schedules or scheduled replacement practices specific to the industrial facility, that require early replacement of equipment before the expiry	The default values have been used. <i>VVB checked and confirmed.</i>

	of the technical lifetime; and (iii) The equipment has no design fault or defect and did not have any industrial accident due to which the equipment cannot operate at rated performance levels.	
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Methodology ID	Applicability condition	Assessment and conclusion
TOOL11	This tool provides a stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period, as required by paragraph 49 (a) of the modalities and procedures of the clean development mechanism. The tool consists of two steps. The first step provides an approach to evaluate whether the current baseline is still valid for the next crediting period. The second step provides an approach to update the baseline in case that the current baseline is not valid anymore for the next crediting period.	<i>This is the renewal of the crediting period therefore N/A VVB checked and confirmed.</i>

3.3.3 Project Boundary

As clearly defined in the revised PD, the project boundary encompasses the physical, geographical site of the renewable generation source. The hydro power plant with all installation is the project boundary and this had been validated during the physical audit.

The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the VCS project power plant is connected to as clearly defined in the applied methodology.

As the project activity is connected to Turkish national grid, the baseline boundary is defined as the Turkish national grid. This includes the project site and all power plants connected physically to the Turkish national grid and there are no off-grid power plants in Turkish grid.

The baseline emission source is CO₂ and fossil fuels fired for electricity generation cause CO₂ emissions which is the main source. It is included to baseline calculation to find the displaced amount by the project activity. The other sources and gases are minor sources and excluded due to the simplification in line with the applied methodology.

The project activity is greenfield hydro power plant project, so there has not been any project emissions and sources, reservoirs and gas in line with the applied methodology.

As a result, Re Carbon Ltd. confirms that the project boundary and associated GHG sources have been clearly and correctly identified in the PD by the PP and will be valid during the second crediting period.

	Source	Gas	Included?	Justification/Explanation
Baseline	CO ₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity	CO ₂	Yes	Main emission source
		CH ₄	No	Minor emission source
		N ₂ O	No	Minor emission source
Project	For dry or flash steam geothermal power plants, emissions of CH ₄ and CO ₂ from non-condensable gases contained	CO ₂	No	N/A
		CH ₄	No	N/A
		N ₂ O	No	N/A

Source	Gas	Included?	Justification/Explanation
in geothermal steam			
For binary geothermal power plants, fugitive emissions of CH ₄ and CO ₂ from noncondensable gases contained in geothermal steam	CO ₂	No	N/A
	CH ₄	No	N/A
	N ₂ O	No	N/A
For binary geothermal power plants, fugitive emissions of hydrocarbons such as nbutane and isopentane (working fluid) contained in the heat exchangers	CO ₂	No	N/A
	CH ₄	No	N/A
	N ₂ O	No	N/A
CO ₂ emissions from combustion of fossil fuels for electricity generation in solar thermal power plants and geothermal power plants	CO ₂	No	N/A
	CH ₄	No	N/A
	N ₂ O	No	N/A
For hydro power plants, emissions of CH ₄ from the reservoir	CO ₂	No	Minor emission source
	CH ₄	No	Minor emission source (Power density is 12,634.11 W/m ² and is greater than 10 W/m ²)
	N ₂ O	No	Minor emission source
Charging of BESS using electricity from the grid or from	CO ₂	No	N/A
	CH ₄	No	N/A

Source	Gas	Included?	Justification/Explanation
fossil fuel electricity generators.	N ₂ O	No	N/A
Utilization of electricity from grid or from fossil fuel generators by PSP for pumped mode.	CO ₂	No	N/A
	CH ₄	No	N/A
	N ₂ O	No	N/A
For PSP, emissions of CH ₄ from the reservoir	CO ₂	No	N/A
	CH ₄	No	N/A
	N ₂ O	No	N/A

3.3.4 Baseline Scenario

The project activity was earlier registered using the methodology ACM0002 version 22.0. The PD has been updated using the latest approved version of the methodology ACM0002 version 22.0. All the applicability conditions of the methodology have been justified appropriately in the revised PD, version 08 and dated as 31/10/2024.

Considering the “CDM Tool to assess the validity of the original/current baseline and to update the baseline at the renewal of a crediting period” requirements:

Step 1: Assess the validity of the current baseline for the next crediting period :

The project activity is supplying power to the Turkish national grid. Also, the fossil fuel sources are still dominant in the energy generation in Turkey. There are no changes in market characteristics in Turkey. Thus, the baseline scenario continues to remain same as earlier, as follows: “Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system”.

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

Project activity follows laws, requirements listed in below:

- Environmental Impact Assessment Regulation, Official Gazette No. 26939 dated July 17, 2008.
- Water Pollution Control Regulation, Official Gazette No. 25687 dated December 31, 2004 and revised in Official Gazette No. 26786 dated February 13, 2008;

- Regulation on Construction of Cesspits where there is no Wastewater Collection System, Official Gazette No. 13783 dated March 13, 1971;
- Hazardous Chemicals Regulation, Official Gazette No.21634 dated July 11, 1993 and revised in Official Gazette No. 27092 dated December 26, 2008;
- Regulation on General Principles of Waste Management, Official Gazette No. 26927 dated July 5, 2008;
- Hazardous Wastes Control Regulation, Official Gazette No. 25755 dated March 14, 2005;
- Waste Oil Control Regulation, Official Gazette No. 26952 dated July 30, 2008 and revised Official Gazette No. 27304 dated July 31, 2009;
- Vegetative Waste Oil Control Regulation, Official Gazette No. 25791 dated April 19, 2005; and revised Official Gazette No. 27305 dated July 31, 2009
- Solid Waste Control Regulation, Official Gazette No. 20814 dated March 14, 1991 and revised in Official Gazette No. 25777 dated April 5, 2005;
- Medical Waste Control Regulation, Official Gazette No. 25883 dated July 22, 2005;
- Environmental Audit Regulation, Official Gazette No. 27061 dated November 21, 2008;
- Packaging Waste Control Regulation, Official Gazette No. 26562 dated June 24, 2007 and revised in Official Gazette No. 27046 dated November 6, 2008; and
- Waste Batteries and Accumulators Control Regulation, Official Gazette No. 25569 dated August 31, 2004 and revised in Official Gazette No. 25744 dated March 03, 2005;
- The Excavation, Construction and Demolition Waste Control Regulation, Official Gazette No. 25406 dated March 18, 2004;
- Soil Pollution Control Regulation, Official Gazette No. 25831 dated May 31, 2005;
- Regulation Related to Workplace Opening and Operation Permits, Official Gazette No. 25902 dated August 10, 2005 and revised in Official Gazette No. 26492 dated April 13, 2007;
- Industrial Air Pollution Control Regulation, Official Gazette No.27277 dated July 3, 2009
- Air Quality Assessment and Management Regulation, Official Gazette No. 26898 dated June 6, 2008 and revised in Official Gazette No. 27219 and dated May 5, 2009;
- Air Pollution Control Regulation For Heating Sources, Official Gazette No. 25699 dated January 13, 2005 and revised in Official Gazette No. 27134 dated February 07, 2009;
- Exhaust Gases Emission Control Regulation, Official Gazette No. 27190 dated April 04, 2009; and

- Regulation on Protection of Wetlands, Official Gazette No. 25818 dated May 17, 2005.

In addition to the Environmental Law and its associated regulations, there are several other laws that directly or indirectly include environmental review, and thus, are applicable to the proposed project. The project complies with the 4857 numbered Labour Law and its regulations stated below:

- Health and Safety Regulation for Construction Works, Official Gazette No. 25325 dated December 23, 2003;
- Regulation on Health and Safety Regarding Temporary Works, Official Gazette No. 25463 dated May 15, 2004.

Other regulations that the project complies with can be listed as follows:

- 5346 numbered Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy;
- Regulation on Protection and Usage of Agricultural Lands, Official Gazette No. 25766 dated March 25, 2005;
- 2863 numbered Law on Protection of Cultural and Natural Heritage (revised by 5226 numbered Law);
- 4342 numbered Pasture Law;
- 6831 numbered Forestry Law (amended by 5192 numbered Revision in Forestry Law); Regulation on Buildings located on the Disaster Areas, Official Gazette No. 26582 dated July 14, 2007.

Step 1.2: Assess the impact of circumstances

The project activity does not involve new fuel or raw materials. The information about the project activity in the previous crediting period validation still valid.

The emission factor has been updated and fixed ex-ante for the 2nd crediting period. The procedures as defined in the “Tool to calculate the emission factor for an electricity system”, version 07.0 have been followed.

The OM is taken as 0.7424 tCO₂/MWh.

The BM is taken as 0.3680 tCO₂/MWh.

All other projects than wind and solar power generation project activities wOM = 0.5 and wBM = 0.5 for the first crediting period, and wOM = 0.25 and wBM = 0.75 for the second and third crediting period. Therefore wOM = 0.25 and wBM = 0.75 have been considered for the second crediting period. CM is taken as 0.4616 tCO₂/MWh.

The combined margin (CM) emission factor of Turkish National Transmission System has been published by the Ministry of Energy and Natural Resources. The latest values belong to the 2020 statistics. According to this, the emission factor is taken as 0.4616 tCO₂/MWh.

The same has been checked from the following link and the document available: <https://enerji.gov.tr/evced-cevre-ve-iklim-turkiye-ulusal-elektrik-sebekesi-emisyon-faktoru>

The combined margin (CM) emission factor of Turkish National Transmission System has been published by the Ministry of Energy and Natural Resources. The latest values belong to the 2020 statistics. According to this, the emission factor is taken as 0.4616 tCO₂/MWh.

The same has been checked from the following link and the document available: <https://enerji.gov.tr/evced-cevre-ve-iklim-turkiye-ulusal-elektrik-sebekesi-emisyon-faktoru>

VVB confirms that the Turkish National EF has been calculated to be in line with the “Tool to calculate the emission factor for an electricity system”, version 07.0.

the Turkish National EF has been calculated to be in line with the “Tool to calculate the emission factor for an electricity system”, version 07.0.

Step 1.3: Assess whether the continuation of use of current baseline equipment(s) or an investment

VVB confirmed that the baseline scenario for the project activity is the continued use of the existing equipment(s) without any investment, and the project owners or third party(ies) do not plan to make an investment later but before the end of the crediting period. Therefore the existing baseline scenario does not need to be updated for that crediting period, nor does the crediting of emission reductions need to be limited to the period before the base equipment ceases to operate.

Step 1.4: Assessment of the validity of the data and parameters

“EF_{grid,y}” parameter is correctly defined, which is described during validation.

“EG_y”, “CapPJ” and “APJ” parameters are correctly monitored.

Based on the technical expertise VVB confirmed that.

Step 2: Update the current baseline and the data and parameters

There is no update about the baseline and data and parameters.

Step 2.1: Update the current baseline

No updates in policy and regulatory framework comparing with the initial validation process have been found in Turkey. Therefore, it can be concluded that the baseline scenario has not changed and continues to be the same as during the second crediting period.

3.3.5 Additionality

The project's additionality had been checked during the initial validation of the project activity and the project was found to be as additional by the relevant VVB at that time.

Re Carbon Ltd. can also confirm that in Turkish legislation there is no law or any other regulation that mandates such power plants to be built. The project will be used only for the purpose of energy generation and has an Energy Generation License for 49 years. Also, the EIA affirmation has been taken to the project activity. Therefore, this project is a regulatory surplus.

3.3.6 Quantification of GHG Emission Reductions and Carbon Dioxide Removals

The emission reduction calculation estimations have been included in the PD in line with the latest approved version of the methodology ACM0002 version 22.0. The baseline emissions are calculated based on the combined emission factor multiplied by the expected net electricity generation, which amounts to 64,624 -ton CO₂ per annum.

Emission factor had been calculated in line with the selected methodology and the Ministry of Energy and Natural Resources document named as "Turkey's National Electricity Network Emission Factor Factsheet, EF of hydropower plants" as 0.4616 tCO₂/MWh (with considering weighing factors of wOM= 0.25 and wBM= 0.75 since this is the second crediting period).

$$BE_y = 140,000 \text{ MWh} \times 0.4616 \text{ tCO}_2\text{e/MWh} = 64,624 \text{ tCO}_2\text{e}$$

There are no project emissions or leakage emissions associated with the hydro power project according to applied methodology. Thus, the emission reductions correspond to the baseline emissions and the project is expected to result in an average emission reduction of 64,624 tCO₂e/year during the second crediting period.

$$ER_y = BE_y - PE_y - LE_y$$

$$LE_y = 0, PE_y = 0$$

$$ER_y = BE_y = 64,624 \text{ tCO}_2\text{e/yr}$$

3.3.7 Methodology Deviations

N/A (There are no methodology deviations.)

3.3.8 Monitoring Plan

According to ACM0002 version 22.0, one of the parameters required to be monitored is "net electricity supplied by the proposed project to the grid in year y, $EG_{\text{facility},y}$ which will be continuously measured and recorded at least monthly.

Net electricity generation will be based on measured value of electricity export and import and recorded via meters sealed by TEIAS (the distribution and grid company) for billing purposes therefore no new additional protocol will be needed for monitoring emission reduction. According to meter reading protocols, the internal consumption of the facility was subtracted from the gross generation. EPIAS records will be used as the main source for the quantity of net electricity delivered to the grid, and it has been cross checked with the meter reading records (OSF forms) provided to the company by TEIAS.

The site electricity technicians and plant manager will be responsible for the electricity generated, gathering all relevant data and keeping the records.

There are two electricity meters, one main meter and one back up meters. Meters have been changed on 19/11/2020 due to meters have been expired (completed its 10-year period) according to the regulations. Old meter details are:

- Old Main Electricity Meter: Actaris (SL761B071): Serial Number: 53077777
- Old Back-up Electricity Meter: Actaris (SL761B071): Serial Number: 53077778

All meters are inspected and sealed by TEIAS before the commissioning of the power plant in order to be protected from interference by any of the parties and the relevant information about the electricity meters including the serial numbers have been provided by the PP. Installation of the meters and data monitoring will be carried out according to the relevant regulation by TEIAS which will record the meter readings via EPIAS system and through remote reading. The details of the current electricity meters are as follows:

	Brand	Serial Number	Accuracy Class	First Index Date	Calibration Date
Main Meter	EMH-(LZQJ-XC)	9798711	0.5S	19/11/2020	19/11/2030
Back-up Meter	EMH-(LZQJ-XC)	9798712	0.5S	19/11/2020	19/11/2030

The main data source will be EPIAS data and TEIAS meter records will be used for cross checking purpose.

The other monitoring parameter APJ will be monitored throughout the second crediting period in order to calculate the project emissions of the project.

Besides, validation team has not identified emission sources that are not addressed by the applied methodology which are expected to contribute more than 1% of the annual emission reduction.

Therefore, Re Carbon Ltd. can confirm that the list of parameters that need to be monitored ex post for the second crediting period is complete and consistent with the relevant applied methodology which is ACM0002 version 22.0.

3.4 Non-Permanence Risk Analysis

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

4 VALIDATION OPINION

4.1 Validation Summary

Re Carbon Ltd. performed the validation of the “Cirakdami Hydro Electricity Power Plant” in “Turkey” between 10/10/2023 and 25/06/2024. The GHG Statement is the responsibility of the “Aydem Yenilenebilir Enerji A.S.”. The validation was performed based on Validation criteria for projects set out in VCS Version 4, UNFCCC criteria for the CDM and Host Party criteria, as well as per criteria given to provide for consistent project operations, monitoring and reporting.

The validation was performed by a validation team consisting of “Sandeep Kanda as the Previous Team Leader, Selen Cilasun as the Team Leader, Helin Tüzer as the Verifier Trainee and Rohit Badaya as the ITR” and the project activity was checked against the applicable rules and regulations of CDM including CDM Validation and Validation Standard for project activities version 3.0, CDM Project Standard for project activities version 3. and VCS Standard Version 4.7

Re Carbon Ltd. hereby confirms that the proposed project activity “Cirakdami Hydro Electricity Power Plant” in Turkey, applied all relevant EB-guidance as the selected baseline and monitoring methodologies and the associated methodological tools have been applied correctly. The total emission reductions from the project are estimated to be on the average 646,239 tCO_{2e} over the selected 10 year crediting period.

4.2 Validation Conclusion

As a result, the validation team assigned by the Re Carbon Ltd. concludes that the proposed Project Activity “Cirakdami Hydro Electricity Power Plant” in Turkey, as described in the PD (08 and 31/10/2024)

- meets all relevant Host Country criteria;
- meets all relevant requirements of the VCS project activities [including VCS version xx, Article 12 of the Kyoto Protocol, the Modalities and Procedures for CDM (Marrakesh Accords) and the subsequent decisions and guidance by the COP/MOP and the CDM Executive Board];
- applies correctly the baseline and monitoring methodology “Name and version of the methodology”;
- its additionality is sufficiently justified in the PD;
- is likely to achieve estimated emission reductions;

Crediting period: From [28-June-2022] to [27-June-2032]

Validated estimated GHG emission reductions and carbon dioxide removals for the project crediting period:

Vintage period	Estimated baseline emissions (tCO2e)	Estimated project emissions (tCO2e)	Estimated leakage emissions (tCO2e)	Estimated reduction VCU (tCO2e)	Estimated removal VCU (tCO2e)	Estimated total VCUs (tCO2e)
28-June-2022 to 31-December-2022	33,108	0	0	33,108	33,108	33,108
01-January-2023 to 31-December-2023	64,624	0	0	64,624	64,624	64,624
01-January-2024 to 31-December-2024	64,624	0	0	64,624	64,624	64,624
01-January-2025 to 31-December-2025	64,624	0	0	64,624	64,624	64,624
01-January-2026 to 31-December-2026	64,624	0	0	64,624	64,624	64,624
01-January-2027 to 31-December-2027	64,624	0	0	64,624	64,624	64,624
01-January-2028 to 31-December-2028	64,624	0	0	64,624	64,624	64,624
01-January-2029 to 31-	64,624	0	0	64,624	64,624	64,624

December-2029						
01-January-2030 to 31-December-2030	64,624	0	0	64,624	64,624	64,624
01-January-2031 to 31-December-2031	64,624	0	0	64,624	64,624	64,624
01-January-2032 to 27-June-2032	31,515	0	0	31,515	31,515	31,515
Total	646,239	0	0	646,239	646,239	646,239

For projects required to assess permanence risk: this is not applicable since this is not an AFOLU project.

i) Provide a conclusion on the following information:

The non-permanence risk rating (%)	N/A
If applicable, the Long-term Average (LTA), whether it has been properly updated, and if it has been reached.	

ii) Complete the table below for the project crediting period:

Vintage period	Estimated baseline emissions (tCO ₂ e)	Estimated project emissions (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated reduction VCU's (tCO ₂ e)	Estimated removal VCU's (tCO ₂ e)	Estimated total VCU's (tCO ₂ e)
28-June-2022 to 31-December-2022	33,108	0	0	33,108	33,108	33,108
01-January-2023 to 31-	64,624	0	0	64,624	64,624	64,624

December-2023						
01-January-2024 to 31-December-2024	64,624	0	0	64,624	64,624	64,624
01-January-2025 to 31-December-2025	64,624	0	0	64,624	64,624	64,624
01-January-2026 to 31-December-2026	64,624	0	0	64,624	64,624	64,624
01-January-2027 to 31-December-2027	64,624	0	0	64,624	64,624	64,624
01-January-2028 to 31-December-2028	64,624	0	0	64,624	64,624	64,624
01-January-2029 to 31-December-2029	64,624	0	0	64,624	64,624	64,624
01-January-2030 to 31-December-2030	64,624	0	0	64,624	64,624	64,624

01-January-2031 to 31-December-2031	64,624	0	0	64,624	64,624	64,624
01-January-2032 to 27-June-2032	31,515	0	0	31,515	31,515	31,515
Total	646,239	0	0	646,239	646,239	646,239

Therefore, Re Carbon Ltd. requests the registration of the proposed project activity as a VCS project activity.

		
Selen CILASUN	Rohit BADAYA	Havva OZTURK
Team Leader	ITR and Decision Maker	CMD Review
11/11/2024		

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

N/A (There is no commercially sensitive information)

Section	Information	Justification	Assessment method and conclusion

APPENDIX 2: VALIDATION PROTOCOL

Table 1 – Resolution of Corrective Action, Forward Action and Clarification Requests

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
CAR-1 The date of issued seems not correct.	2.3	Response-1: The date of issue has been corrected.	Review-1: Ok, closed.
CAR-2 PD template is not latest version.	4	Response-1: The version 4.2 has been used. Response of Review-1: The version of the PD has been updated as 4.3.	Review-1: Since the project is currently ongoing, Version 4.3 will be valid from 1 st of March. Review-2: OK, closed. (Updated.)
CAR-3 The page numbers specified in the Table of Contents with section page numbers are not aligned.	Appendix-2	Response-1: The page numbers have been made aligned. Response of Review-1: The PD has been revised, the page numbers are aligned.	Review-1: The page numbers specified in the Table of Contents with section page numbers are not aligned. Review-2: OK, closed. (Page numbers are aligned.)
CAR-4 a) The installed capacities are not correct in the Section 1.1 of the PD.	1.1.1.1	Response-1: a) The installed capacity has been corrected.	Review-1: a) It is not matched with Generation license because of the decimals.

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
b) Dates are not correct in the Table-1 in the Section 1.1. In addition other necessary dates are missing in the Table-1. c) There is incorrect explanation in the first paragraph of the 5th page of the PD. d) Reference of the generator information is missing and not matched with the evidence document. e) Total and annual estimated electricity generations are missing. f) There are two titles for "Figure 1" however there is only one figure.		b) Dates have been made correct and other dates have been included. c) The mentioned paragraph has been revised. d) The information has been revised according to the relevant evidence document. e) The information has been included. f) The figure name has been corrected. Response of Review-1: a) The installed capacities are in line with the generation license. - e)The total values have been indicated. Response of Review-2: a) There is no mention of installed capacities on page 58th. However, the classes of the meters have been revised in terms of decimals.	b) Ok, closed. (Dates has been added in table-1) c) It is still incorrect on page 5th of PD. d) Total estimated electricity generations are missing. e) OK, closed. (Information has been indicated.) f) OK, closed. ("Figure 1" name has been corrected.) Review-2: a) OK, closed. (Installed capacities has been corrected.) - c)It is still incorrect on page 5th of PD. d) OK, closed. (Added.) Review-3: c) OK, closed. (Revised.)
CAR-5 Brief description of the installed technology and equipment are missing in the Section 1.1.	1.1.1.3.	Response-1: A brief description of the installed technology has been included starting from the second paragraph of section 1.1.	Review-1: a) Number of generator, number of electricity meters and details for

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
		Response of Review-1: The details are included in the second paragraph after the milestone table in section 1.1.	electricity meters are still missing in Section 1.1 Review-2: a) OK, closed. (Added.)
CAR-6 Description of the scenario existing prior to the implementation of the project is missing in Section 1.1.	1.1.1.4	Response-1: The baseline scenario has been included to the section 1.1. Response of Review-1: The baseline scenario as per the applied methodology has been included in the last paragraph of section 1.1.	Review-1: Description of the scenario existing prior to the implementation of the project is missing in Section 1.1. Review-2: OK, closed. (Added.)
CAR-7 The historical dates in VCS are missing in milestone table in Section 1.1.	1.1.1.6	Response-1: The registration date in the VCS has been included to the milestone table in section 1.1.	Review-1: OK, Closed.
CAR-8 Description about how the project is eligible under the scope of the VCS Program is not appropriate in Section 1.3.	1.3.1	Response-1: The section has been made detailed.	Review-1: OK, Closed.
CAR-9 There is missing information about " The estimated annual GHG emission reductions/removals of the project are .. " in Section 1.10 of PD.	1.10.1	Response-1: The section has been revised.	Review-1: OK, closed (The section has been corrected).
CAR-10 a) Emission factor is not matched with the related evidence	1.11.1	Response-1: a) The emission factor matching with the evidence document. It has	Review-1: a) Ok, Closed.

document. Therefore calculations are incorrect in PD and ER Calculation Excel Sheet. b) References are missing in Section 1.11. c) Information about project activity is a greenfield project or not is missing in Section 1.11. d) The lifetime of the project activity is not included in Section 1.11.		been made consistent. The evidence document has been provided. b) The necessary references have been given, and the section has been revised. c) The information has been included. d) The lifetime of the project activity is included in section 1.11. (“..., the project life time is estimated to be about 20 years”). Response of Review-1: b)The meter information has been included. d)The paragraph has been revised.	b) Electricity meter information is missing. c) OK, closed. d) “ The manufacturer does not state a set estimated technical lifetime. Therefore, estimates from the literature is used. According to a report by NREL², there is low wear on the turbines and little or no wear on generators, meaning that the average service life of the electromechanical equipment is between 60 to 80 years. According to another source, hydroelectric power plants offer an average lifetime of approximately 50–100 years” is not reasonable paragraph. Review-2: b) OK, closed. (The electricity meter information added.) d) OK, closed. (The paragraph is revised.)
CAR-11 The baseline scenario is missing in Section 1.11.	1.11.3.3.	Response-1: The baseline scenario has been included.	Review-1: The baseline scenario is missing in Section 1.11.

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
		Response of Review-1: The baseline scenario has been included. Response of Review-2: The baseline scenario has been included as consistent with the methodology requirements.	Review-2: The baseline scenario should have been more detail. Review-3: OK, closed. (The detail is enough.)
CAR-12 References are missing in Section 12.1	1.12.1	Response-1: The reference of the figure has been included. Response of Review-1: The sentence has been revised. Response of Review-2: There is not a statement as "Taken from the KMZ file provided to VVB" in the PD.	Review-1: " Taken from the KMZ file provided to VVB" is not official evidence. Review-2: " Taken from the KMZ file provided to VVB" is not official evidence. Review-3: Reference of Section 1.13 is not available. Review-4: OK, closed.
CAR-13	1.12.2.1.	Response-1:	Review-1:

² Renewable Energy Technologies: Cost Analysis Series by IRENA, 2012

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
There is only Power house coordinates are available in the KML file besides is not totally match with the PD.		The coordinates table has been made consistent with the provided KML document. Response of Review-1: The mentioned document is the KMZ document. Response of Review-2: There is not a statement as "KML document" in the PD.	" KML document" is not official document. Review-2: " KML document" is not official document. Review-3: Please see CAR-12 review-3. Review-4: OK, closed.
CAR-14 Information is not satisfied with requirements for Section 1.14.	1.14.	Response-1: The related laws and regulatory frameworks are provided in the Appendix 1.	Review-1: OK, closed.
CAR-15 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 is missing.	1.15.1.1.	Response-1: A 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 has been provided.	Review-1: OK, Closed.
CAR-16 Please provide the signed and sealed letter on company letterhead that project hasn't been included in emissions trading program; or any other mechanism that includes GHG allowance trading.	1.16.1.1.	Response-1: A 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 has been provided.	Review-1: The relevant document couldn't find. Review-2: OK, closed. (The relevant document is provided correctly.)

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
		Response of Review-1: The relevant document has been provided before in the folder named "22. Declaration Letter". It has been provided again.	
CAR-17 The workbook mentioned in the PD is not available in the documents provided.	1.17.1.1.	Response-1: The section has been revised. Therefore, the workbook has not been mentioned. Response of Review-1: Since the section was incorrect before and now it has been revised and corrected; the mentioned workbook is not mentioned anymore and therefore it has not been provided.	Review-1: The workbook mentioned in the PD is not available in the documents provided. Review-2: OK, closed. (Deleted.)
CAR-18 The previous documents of the project activity shall be provided.	1.17.1.2.	Response-1: The previous PD which responds to the first crediting period has been provided. Response of Review-1: The verification report has been provided. Response of Review-2: Latest documents have been provided.	Review-1: There is only PD in the supporting documents. However, latest verification report, review documents are still missing. Review-2: There is only PD in the supporting documents. However, latest verification report, review documents are still missing. Review-3:

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
			OK, closed. (The latest verification report have been provided.)
CAR-19 Precautions taken for the possible negative environmental and socio-economic impacts of the project activity is not included in the Section 2.1 of the PD.	2.1.1.	Response-1: The section has been revised.	Review-1: OK, closed.
CAR-20 a) All local stakeholder communication details are not provided in the Section 2.2 of the PD. b) The current status of the on-going communication with the local stakeholders are not provided in the Section 2.2 of the PD. c) The information in the Section 2.2. is not matched with the site visit conversation.	2.2.1.	Response-1: a) The local stakeholder communication is carried out with a grievance box, and it has been included to PD and provided. b) The current status of the on-going communication with the local stakeholders has been provided in section 2.2. c) The section has been updated. Can you please specify which information? Response of Review-1: a) The version of the PD has been updated. Therefore section 2 has been updated. Response of Review-2: a) There is a whole section for the stakeholder engagement and	Review-1: a) All local stakeholder communication details are not provided in the Section 2.2 of the PD. Shared evidence photo is not enough. b) Ok, closed. c) OK, Closed (updated version is appropriate.) Review-2: a) Shared evidence photo is not enough. Review-3: a) Still shared evidence photo is not enough. Also, more detail supporting document should be provide for section 2.

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
		consultation. There are no shared photos in the section 2.2.	Review-4: a) OK, closed. (Updated).
CAR-21 a) Project is already operated. There is language mistake. b) Please provide relevant up-to-date evidences.	2.3.1.	Response-1: a) The language has been corrected. b) Evidence documents have been provided about the biodiversity. Response of Review-1: a) All sections of PD have been revised in terms of language mistakes.	Review-1: a) Project is already operated. There is language mistake still in Section 1.11. b) OK, closed. Review-2: a) OK, closed. (Revised.)
CAR-22 Methodology is not latest version and references are missing in Section 3.1	3.1.1.	Response-1: The version of the applied methodology has been updated.	Review-1: OK, closed.
CAR-23 There are missing parts in the applicability of the methodology.	3.2.1.	Response-1: The applicability of the methodology has been revised. Response of Review-1: a) The column has been revised. b) The tools have been indicated in applicability section. Response of Review-2: a) For ACM0002, the 4 a has been selected in the PD. However, 4 c seems consistent with the methodology.	Review-1: a) For ACM0002, 4,c seems incorrect. b) Tool 10 and Tool 11 are missing in applicability section. Review-2: a) For ACM0002, 4,c seems incorrect. b) OK, closed. (Tool 10 and Tool 11 added.) Review-3:

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
			a) OK, closed.
CAR-24 The figure of the Project activity is not included in Section 3.3.	3.3.	Response-1: Two figures have been included in section 3.3.	Review-1: OK, closed.
CAR-25 Evidence document is missing.	3.5.1	Response-1: The section has been revised and a reference document has been included.	Review-1: OK, closed.
CAR-26 Values are missing in the section 4.1.	4.1.1.	Response-1: Values have been included in section 4.1.	Review-1: OK, Closed.
CAR-27 a) There is information about reservoir which is not mentioned before. b) There are incorrect data in ER Calculation Excel Sheet and PD.	4.2.1.	Response-1: a) The information about the reservoir area has been provided in the documents. b) The information are correct as per the provided documents.	Review-1: a) Ok, Closed. b) OK, Closed.
CAR-28 Crediting period dates are incorrect in ER Calculation Excel Sheet and PD.	4.4.1.	Response-1: The crediting period dates in the PD and Excel sheet have been made consistent.	Review-1: OK, closed.
CAR-29 a) Meter evidence documents are not provided to VVB. b) Values in the parameters incorrect (please see above CARs.)	5.2.1.	Response-1: a) Meter evidence documents have been provided. b) EF value is correct, the generation data has been corrected.	Review-1: a) OK, Closed. b) OK, closed.
CAR-30 The information is given in Appendix-2 is not mentioned before. Information with detail is missing.		Response-1: The information has been mentioned in section 4.2, and section 5.2.	Review-1: OK, closed.

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
CAR-31 a) VCS-PD (Section 1.2): The "Audit History" table has been repeated two times in the Section 1.2 of VCS-PD. b) VCS-PD (Section 1.4.3): As per the VCS-PD filling requirements of Section 1.4.3, "For transfer projects and CPAs seeking registration, justify how eligibility conditions have been met. The response should justify how the criteria in Appendix 2 and Section 3.23 (Double Counting and Participation under Other GHG Programs) of the VCS Standard have been met".However the details are provided as "The project is not an AFOLU project. Hence, this section is not applicable" in Section 1.4.3, which does not look relevant to the above requirements.. c) VCS-PD (Section 2.4.1): As per the VCS-PD filling guidelines, "Where no risk is identified, write "No risk identified" in the first column, and provide justification in the second column" However no such details are provided in the VCS-PD.	ITR	Response-1: a) The repeated table in the section 1.2 has been removed. b) The explanation in section 1.4.3 has been revised as per the requirements. c) Since the project is not located in or adjacent to habitats for rare, threatened, or endangered species, the mentioned table is not applicable. An explanation has been included.	Review-1: a) Ok, closed (revised) b) Ok, closed (revised) - c)Ok, closed (added)
CAR-32	ITR	Response-1: The equation has been revised with a proper explanation as per the latest	Review-1: Ok, closed (revised)

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
CS-PD (Section 4.2): The equation for project emissions is as follows as per the applied methodology: $PE_y = PE_{FF,y} + PE_{GP,y} + PE_{HP,y} + PE_{BESS}$ However the same not reflected from the details in the Section 4.2 of VCS-PD.		version of the applied methodology (ACM0002-v22).	
CAR-33 a) VCS-PD (Section 4.2): The statement "Power density of the projects higher than 10 W-m² for 49.110 MWe installed capacity and 2,827m² maximum lake area", where capacity (49.110 MWe) does not match with the capacity (49.10 MWe) as per the Section 1.1 of VCS-PD. b) VCS-PD (Section 5.2): Please check the parameter (CapPJ), where the value is provided as "49,110,000 W", however the capacity is 49.10 MW as per the Section 1.1 and Section 1.12 (Table 2) of the VCS-PD. Check on the minor differences observed in capacity. The parameter table for the parameter (APJ), where the reference of Appendix-2 in the sentence "Indirectly measured based on the reservoir area map provided in Appendix-2" does not look correct.	ITR	Response-1: a) The value has been revised as 49.10 MWe throughout the PD and ER excel sheet. The calculations have been revised as well. b) The value of the CapPJ parameter has been revised. The minor differences in the capacity have been corrected throughout the PD. The reference to the Appendix-2 has been revised as Appendix-3.	Review-1: a) Ok, closed (revised) b) Ok, closed (revised)
CAR-34	ITR	Response-1:	Review-1: a) Ok, closed (revised)

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
a) VCS-PD (Section 1.15): Please check whether the Appendix number is correct as per the provided statement "The list of the rules and regulations of the host country that a new electricity generation project has to comply is given in Appendix 1 of this report" in Section 1.15 of the VCS-PD. The "Appendix-1" is for the "commercially sensitive information" as per the VCS-PD. b) VCS-PD (Section 2.1.1, Section 2.1.3, Section 2.1.4): Some of the details provided in Section 2.1.1, Section 2.1.3, Section 2.1.4 is not visible and hence please check the font size and color accordingly. c) VCS-PD (Section 2.1.5): The table on the public comments have been repeated two times. Please check and revisions may be provided accordingly.		a) The reference to the Appendix-1 has been revised as Appendix-2 as per the requirements of the VCS-PD. b) The sentences have been revised. c) The repeated table has been removed.	b) Ok, closed (revised) c) OK, closed.
CL-1 Arial or Century Gothic 10.5pt, black, regular (non-italic) font should be use for all items in the PD.	1	Response-1: Arial, 10.5 pt, black, regular font has been used for all items in the PD.	Review-1: OK, Closed.
CL-2 There are blank spaces in the explanation.	1.7.1	Response-1: The explanation has been made more detailed.	Review-1: OK, closed.

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
CL-3 This is available as " 28/06/2012". <i>However the source of this date is missing.</i>	1.8.1.	Response-1: The source of this date has been included.	Review-1: OK, closed.
CL-4 The total crediting period including the day, month and year for the start and end dates and the total number of years are indicated in Section 1.9. However, the information which is the credit period is missing.	1.9.1	Response-1: The information has been included.	Review-1: OK, closed.
CL-5 Methodology justifications are missing in section 4.2.	4.2.3.	Response-1: The methodology justification has been included to section 4.2.	Review-1: OK, closed.
CL-6 There isn't any diagram including to display the GHG data collection and management system.	5.3.13.	Response-1: Two figures have been included.	Review-1: OK, closed.
CL-7 VCS-PD (Section 3.2): The scale is provided as "large scale" in the sentence "CIRAKDAMI HEPP is a large-scale hydro power type, greenfield, grid connected renewable electricity generation project". However the scale is "project" as per the Section 1.11 of the VCS-PD. The clarity on scale is missing in the VCS-PD.	ITR	Response-1: The scale of the project is "project" as per the classification in section 1.11. The "large-scale" statements have been removed from the PD.	Review-1: Ok, closed (corrected)
CL-8 VCS-PD (Section 3.2): The following applicability criteria not discussed as per the	ITR	Response-1: All the applicability conditions have been discussed in section 3.2 of the PD.	Review-1: Ok, closed (relevant information added)

Draft Report Clarifications, Forward Action and Corrective Action Requests by Validation Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Validation Team Conclusion
applied methodology in the Section 3.2 of VCS-PD: “Integrate a BESS together with a Greenfield power plant that is operating in coordination with a PSP. The BESS is located at site of the greenfield renewable power plant”. “In case the project activity involves PSP, the PSP shall utilize the electricity generated from the renewable energy power plant(s) that is operating in coordination with the PSP during pumping mode” “In the case of PSP, the project participants shall demonstrate in the PDD that the project is not using water which would have been used to generate electricity in the baseline” All the applicability conditions to be discussed accordingly in the VCS-PD.		The mentioned statements about PSP have been included to the PD as per the latest version of the methodology, which is applied to this project (ACM0002-v22).	

APPENDIX 3: VERIFICATION TEAM AND ITR COMPETENCE

- 1) 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 14 years of work experience in the area of Climate Change (CDM, GS, VCS, GCC) and has worked for various DOEs/VVBs in the capacity of Team Leader, Validator/Verifier, Technical Expert, ITR, Manager (Technical & Certification) and Quality Manager. Within the context of CDM/GS/VCS/GCC, 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/ GCC projects, located in countries in Asia, Africa, Middle East, Asia Pacific as well as in Türkiye. With re-carbon, Rohit is a free-lance Team Leader, ITR and an expert in Project-Level Group 1 - GHG Project Types: Renewable Energy Production & Energy Efficiency Improvements // Project-Level Group 5 - GHG Project Types: Methane collection & destruction as well as Livestock and other anaerobic digester operations // Project-Level Group 6 - GHG Project Types: Capture & destruction of Landfill gas & Capture & use of Landfill gas & Avoidance of methane production in wastewater treatment. Rohit is also a Regional Expert for Bhutan, Brazil, Cambodia, Chile, Democratic Republic of Congo, Egypt, El Salvador, Ethiopia, The Gambia, India, Indonesia, Iran, Kenya, Madagascar, Malawi, Mauritius, Mexico, Morocco, Myanmar, Nepal, Nicaragua, Nigeria, Papua New Guinea (PNG), Republic of Madagascar, Senegal, South Africa, Sri Lanka, Thailand, Türkiye, Uganda, Vietnam and Zambia.
- 2) Mr. Sandeep Kanda** holds a Bachelor's degree in "Mechanical Engineering", a Master's 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 over 20 years of professional experience working in the area of energy and environmental management, capacity building, climate change adaptation and mitigation activities, sustainability, auditing and product development. Sandeep has been involved in various capacities in the development and impact assessment of more than 500 climate change mitigation projects and programmatic activities worldwide, covering a 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, ITR and a Project-Level Group 1, 5 and 6 Expert. Sandeep is also a Regional Expert for China, India, Indonesia, Mexico, Nepal, Philippines, Tanzania, Thailand, Türkiye and Vietnam.
- 3) Ms. Selen Cilasun** holds a B.Sc. and a M.Sc. Degree in "Bioengineering". With re-carbon, Selen is an internal Team Leader, a Technical Expert for Project-Level Group 1 - GHG Project Type: Renewable Energy Production and a Regional Expert for Türkiye. Selen is also a Trainee for

Project-Level Group 5 - GHG Project Types: Methane collection & destruction as well as Livestock and other anaerobic digester operations // Project-Level Group 6 - GHG Project Types: Capture & destruction of Landfill gas & Capture & use of Landfill gas & Avoidance of methane production in wastewater treatment.

- 4) **Ms. Helin Tüzer** holds a B.Sc. degree in “Agriculture” from Ankara University. With re-carbon, Helin is an internal Validator/Verifier Trainee in Project-Level Group 1 - GHG Project Type: Renewable Energy Production.

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.

[Signature]

This Appointment Certificate is granted on the date of **27.03.2024** 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:

PROJECT LEVEL GROUP	GHG PROJECT TYPE EXPERTISE	EQUIVALENT GHG TECHNICAL AREA EXPERTISE (reference only)	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
1	Renewable Energy Production	1.2	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021					25.10.2021
1	Energy Efficiency Improvements	3.1	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021					25.10.2021
5	Methane Collection & destruction	13.2	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021					
5	Livestock & other anaerobic digester operations	13.2	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021					25.10.2021
5	Agricultural methane emission reduction	16.1															
5	Agricultural carbon emission reduction	18.1															
6	Capture & destruction of landfill gas	19.1	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021					25.10.2021
6	Capture & use of landfill gas	19.1	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021					25.10.2021
6	Avoidance of methane production in wastewater treatment	19.1	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021					25.10.2021
SDS Criteria:			25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021	25.10.2021					25.10.2021



PROJECT LEVEL GROUP	GHG PROJECT TYPE EXPERTISE	EQUIVALENT GHG TECHNICAL AREA EXPERTISE (reference only)	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
1	Renewable Energy Production	1.2	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
1	Energy Efficiency Improvements	3.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
5	Methane Collection & destruction	13.2	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
5	Livestock & other anaerobic digester operations	13.2	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
5	Agricultural methane emission reduction	16.1															
5	Agricultural carbon emission reduction	18.1															
6	Capture & destruction of landfill gas	19.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
6	Capture & use of landfill gas	19.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
6	Avoidance of methane production in wastewater treatment	19.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
SDS Criteria:			02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022

COUNTRY EXPERTISE:

Egypt, India, Indonesia, Iran, Kenya, Malawi, Senegal, Thailand, Türkiye, Uganda for all above listed GHGRSs

F4	Trainee	Trainee	Trainee	Trainee	Trainee
S1	Trainee	Trainee	Trainee	Trainee	Trainee
CO2B4	Trainee	Trainee	Trainee	Trainee	Trainee

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.

[Signature]

This Appointment Certificate is granted on the date of **27.03.2024** by

Christian Johannes
(General Manager)

Gold Standard
Climate Security & Sustainable Development

Verified Carbon Standard
A VERBA STANDARD

CERCARBONO
Certified Carbon Standard

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:

PROJECT LEVEL GROUP	GHG PROJECT TYPE EXPERTISE	EQUIVALENT GHG TECHNICAL AREA EXPERTISE (reference only)	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
1	Renewable Energy Production	1.2	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
1	Energy Efficiency Improvements	3.1	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
5	Methane Collection & destruction	13.2	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
5	Livestock & other anaerobic digester operations	13.2	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
5	Agricultural methane emission reduction	16.1	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
5	Agricultural carbon emission reduction	15.1	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
6	Capture & destruction of landfill gas	19.1	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
6	Capture & use of landfill gas	19.1	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
6	Avoidance of methane production in wastewater treatment	13.1	08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					
SDS Criteria:			08.02.2022	08.02.2022	06.03.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022	08.02.2022					

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PROJECT LEVEL GROUP	GHG PROJECT TYPE EXPERTISE	EQUIVALENT GHG TECHNICAL AREA EXPERTISE (reference only)	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
1	Renewable Energy Production	1.2	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
1	Energy Efficiency Improvements	3.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
5	Methane Collection & destruction	13.2	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
5	Livestock & other anaerobic digester operations	13.2	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
5	Agricultural methane emission reduction	16.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
5	Agricultural carbon emission reduction	15.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
6	Capture & destruction of landfill gas	19.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
6	Capture & use of landfill gas	19.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
6	Avoidance of methane production in wastewater treatment	13.1	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022
SDS Criteria:			02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	02.02.2023	07.07.2022	07.07.2022	07.07.2022	07.07.2022	07.07.2022

COUNTRY EXPERTISE:

China, India, Indonesia, Mexico, Philippines, Tanzania, Thailand, Türkiye, Vietnam for all above listed GHGRSs

F4	Trainee	Trainee	Trainee	Trainee	Trainee
S1	Trainee	Trainee	Trainee	Trainee	Trainee
CO2BIA	Trainee	Trainee	Trainee	Trainee	Trainee

CERTIFICATE OF APPOINTMENT



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- Bring specific expertise to assessments

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This Appointment Certificate is granted on the date of **27.03.2024** by

Christian Johannes
(General Manager)

Gold Standard
Climate Security & Sustainable Development

Verified Carbon Standard
A VERBA STANDARD

CERCARBONO
Certified Carbon Standard

This Certificate of Appointment is given to

Ms. Selen Cilasun

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

PROJECT LEVEL GROUP	GHG PROJECT TYPE EXPERTISE	EQUIVALENT GHG TECHNICAL AREA EXPERTISE (reference only)	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
1	Renewable Energy Production	2.2	10.01.2023	10.01.2023	10.11.2023		15.10.2022
1	Energy Efficiency Improvements	3.1					
5	Methane Collection & destruction	23.2	Trainee	Trainee	Trainee		Trainee
5	Livestock & other anaerobic digester operations	23.2	Trainee	Trainee	Trainee		Trainee
5	Agricultural methane emission reduction	26.1					
5	Agricultural carbon emission reduction	25.1					
6	Capture & destruction of landfill gas	19.1	Trainee	Trainee	Trainee		Trainee
6	Capture & use of landfill gas	19.1	Trainee	Trainee	Trainee		Trainee
6	Avoidance of methane production in wastewater treatment	23.1	Trainee	Trainee	Trainee		Trainee
SDS Criteria:			10.01.2023	10.01.2023	10.11.2023		15.10.2022

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PROJECT LEVEL GROUP	GHG PROJECT TYPE EXPERTISE	EQUIVALENT GHG TECHNICAL AREA EXPERTISE (reference only)	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
1	Renewable Energy Production	2.2	27.02.2023	27.02.2023	10.11.2023		15.10.2022
1	Energy Efficiency Improvements	3.1					
5	Methane Collection & destruction	23.2	Trainee	Trainee	Trainee		Trainee
5	Livestock & other anaerobic digester operations	23.2	Trainee	Trainee	Trainee		Trainee
5	Agricultural methane emission reduction	26.1					
5	Agricultural carbon emission reduction	25.2					
6	Capture & destruction of landfill gas	19.1	Trainee	Trainee	Trainee		Trainee
6	Capture & use of landfill gas	19.1	Trainee	Trainee	Trainee		Trainee
6	Avoidance of methane production in wastewater treatment	23.1	Trainee	Trainee	Trainee		Trainee
SDS Criteria:			27.02.2023	27.02.2023	10.11.2023		15.10.2022

COUNTRY EXPERTISE:

Türkiye for all above listed GHGRSS

F4	15.03.2024	15.03.2024	15.03.2024	15.03.2024
S1	15.03.2024	15.03.2024	15.03.2024	15.03.2024
CO2H4	15.03.2024	15.03.2024	15.03.2024	15.03.2024

CERTIFICATE OF APPOINTMENT



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- Bring specific expertise to assessments

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[Signature]
Christian Johannes
(General Manager)

This Appointment Certificate is
granted on the date of **27.03.2024** by

Christian Johannes
(General Manager)



This Certificate of Appointment is given to

Ms. Helin Tüzer

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

PROJECT LEVEL GROUP	GHG PROJECT TYPE EXPERTISE	EQUIVALENT GHG TECHNICAL AREA EXPERTISE reference only	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
1	Renewable Energy Production	1.2	Trainee	Trainee			Trainee
1	Energy Efficiency Improvements	3.1					
5	Methane Collection & destruction	13.2					
5	Livestock & other anaerobic digester operations	13.2					
5	Agricultural methane emission reduction	16.1					
5	Agricultural carbon emission reduction	18.1					
6	Capture & destruction of landfill gas	19.1					
6	Capture & use of landfill gas	19.1					
6	Avoidance of methane production in wastewater treatment	19.1					
SDS Criteria:							



PROJECT LEVEL GROUP	GHG PROJECT TYPE EXPERTISE	EQUIVALENT GHG TECHNICAL AREA EXPERTISE reference only	VERIFIER	VALIDATOR	TEAM LEADER	ITR	EXPERT
1	Renewable Energy Production	1.2	Trainee	Trainee			Trainee
1	Energy Efficiency Improvements	3.1					
5	Methane Collection & destruction	13.2					
5	Livestock & other anaerobic digester operations	13.2					
5	Agricultural methane emission reduction	16.1					
5	Agricultural carbon emission reduction	18.1					
6	Capture & destruction of landfill gas	19.1					
6	Capture & use of landfill gas	19.1					
6	Avoidance of methane production in wastewater treatment	19.1					
SDS Criteria:							

COUNTRY EXPERTISE:

Trainee for Türkiye for all above listed GHGRSs

F1	15.03.2024	15.03.2024		15.03.2024
S1	15.03.2024	15.03.2024		15.03.2024
Q1&A	15.03.2024	15.03.2024		15.03.2024