



VALIDATION REPORT

Enür Solar Power Plant Bundle Project

BCR-TR-159-1-001

EPIC SUSTAINABILITY

VALIDATION REPORT PROJECT ID	
Project Title	<i>Enür Solar Power Plant Bundle Project</i>
Project ID	<i>BCR-TR-159-1-001</i>
Project holder	<i>Enür Enerji Üretim Sanayi ve Ticaret Anonim Şirketi</i>
Project Type/Project activity	<i>Non-Conventional and Renewable Energy Sources (NCRES)</i>
Grouped project	<i>Not a grouped project</i>
Version number and date of the Project Document to which this report applies	<i>Version 03 dated 02/06/2025</i>
Applied methodology (ies)	<i>AMS-I.D Small-scale Methodology Grid connected renewable electricity generation Version 18.0</i>
Project location	<i>Bursa, TÜRKİYE</i>
Project starting date	<i>19/02/2018</i>
Quantification period of GHG emissions reductions/removals	<i>19/02/2018 to 18/02/2025 renewable at most twice</i>

Estimated total and average annual amount of GHG emission reductions/removals	30,891 tCO ₂ e/total 4,413 tCO ₂ e/year (average annual)
Contribution to Sustainable Development Goals	Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all Goal 8. Decent Work and Economic Growth: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all Goal 13. Take urgent action to combat climate change and its impacts
Special category, related to co-benefits	NA
Version and date of issuing	03-07-2025
Work carried out by	Mr. R. Vijayaraghavan (Lead Auditor) Mr. Unnikannan R V (Auditor) Mr. Karthik Lakshman (Auditor) Mr. Omur Can Sari (Host Country Expert) Ms. Priyanka M. S. (Technical Reviewer)
Approved by	R. B. Venkataramanaiah 

Table of contents

1	Executive summary	6
2	Objective, scope and validation criteria	7
3	Validation process	8
3.1	<i>Level of assurance and materiality.....</i>	<i>8</i>
3.2	<i>Validation activities.....</i>	<i>8</i>
3.2.1	Planning	8
3.2.2	Sampling plan	9
3.2.3	Execution	9
3.2.3.1	Onsite inspection	10
3.2.3.2	Interviews	11
3.2.3.3	Findings	13
3.3	<i>Validation team</i>	<i>14</i>
4	Validation findings	15
4.1	<i>Project description.....</i>	<i>15</i>
4.2	<i>Project type and eligibility.....</i>	<i>16</i>
4.3	<i>Grouped project (if applicable).....</i>	<i>17</i>
4.4	<i>Other GHG program</i>	<i>17</i>
4.5	<i>Quantification of GHG emission reductions and removals</i>	<i>18</i>
4.5.1	Start date and quantification period	18
4.5.2	Application of the selected methodology and tools	19
4.5.2.1	Title and Reference	19
4.5.2.2	Applicability	19
4.5.2.3	Methodology deviations (if applicable)	25
4.5.3	Project boundary, sources and GHGs	25
4.5.3.1	Eligible areas in the GHG project boundaries (for AFOLU projects)	25
4.5.4	Baseline or reference scenario	26
4.5.5	Additionality	26
4.5.6	Conservative approach and uncertainty management	33
4.5.7	Leakage and non- permanence	34
4.5.8	Mitigation results	34
4.5.8.1	GHG baseline emissions	34
4.5.8.2	GHG project emissions	37
4.5.8.3	GHG leakage	38
4.6	<i>Monitoring plan.....</i>	<i>38</i>
4.6.1	Description of the monitoring plan	38
4.6.2	Data and parameters determined at registration and not monitored during the quantification period, including default values and factors.	40
4.6.3	Data and parameters monitored.	42

4.7	<i>Double counting avoidance</i>	46
4.8	<i>Compliance with Laws, Statutes and Other Regulatory Frameworks</i>	46
4.9	<i>Carbon ownership and rights</i>	47
4.10	<i>Risk management</i>	47
4.11	<i>Sustainable development safeguards (SDSs)</i>	49
4.12	<i>Stakeholder engagement and consultation</i>	49
4.13	<i>Public consultation</i>	51
4.14	<i>Socioeconomic aspects</i>	51
4.15	<i>Sustainable Development Goals (SDG)</i>	52
4.16	<i>REDD+ safeguards (if applicable)</i>	53
4.17	<i>Climate change adaptation</i>	53
4.18	<i>Special categories related to co-benefits</i>	53
5	Internal quality control	54
6	Validation opinion	54
7	Validation statement	55
8	Facts discovered after validation	56
	Annex 1. Competence of team members and technical reviewers	57
	Annex 2. Clarification requests, corrective action requests and forward action requests	59
	Annex 3. Documentation review	73
	Annex 4. Abbreviations	78

1 Executive summary

“Enür Solar Power Plant Bundle Project” (hereafter referred to as “the project” in this VR) is located in boundary of Beleneoluk village, Orhaneli District in Bursa province of Türkiye. The project is fully established and is being operated by Enür Enerji Üretim Sanayi ve Ticaret Anonim Şirketi. This project activity involves the installation and operation of 5 individual unlicensed Photovoltaic solar power with the total output capacity of 4.246 MWe.

The purpose of the project is to generate clean energy by harnessing the solar power and providing the energy to the Turkish national grid. By implementing the project, the dependency on fossil fuels to generate electricity is expected to reduce, which in turn reduces the sources of environmental pollution.

The total installed capacity of the SPP is 4.246 MW (6,955 MWh), which was commissioned on 19/02/2018(all the 5 power plants). The electricity produced by project activity will result in emission reduction of 4,413 tCO₂e per year and 30,891 tCO₂e over the crediting period of 7 years which can be renewed twice.

The purpose of the project verification is to conduct a third-party independent verification of a BCR Project Activity and for verifying the:

- (a) Greenhouse-gas (GHG) emission reductions and removals achieved by the Project Activity
- (b) Contributions towards achieving the United Nations Sustainable Development Goals (SDGs)
- (c) Claims that the Project Activity does not cause any net harm to the environment or/and society

A competent project verification team is selected which includes Lead auditor, Auditor, Host country expert, and technical expert. The details of the competence of the personnel involved in the validation of the project is provided under Appendix 1 of this VR.

Enür Enerji Üretim Sanayi ve Ticaret Anonim Şirketi has contracted EPIC Sustainability Services Private Limited to undertake the independent project validation of the BCR project activity which is listed under BCR ID: BCR-TR-159-1-001 titled “Enür Solar Power Plant Bundle Project”. The objectives of the validation is to verify that the BCR project activity meets the requirements of the BCR standard v3.4^{/1/}, BCR Validation and Verification Manual Greenhouse Gas projects version 2.4.^{/2/}, ISO 14064-2 & ISO 14064-3^{/2/}, applicable approved CDM Methodology “AMS-I.D.: Grid connected renewable electricity generation, version 18.0”^{/7/}, relevant UNFCCC criteria for the Clean Development Mechanism (CDM), as well as criteria given to provide for consistent project operations, monitoring and reporting.

Validation Process and Methodology

The validation process consists of the following phases:

- Review of the project details and appointment of assessment team
- Preparation of List of documents and audit plan
- a desk review of documents/reports submitted by project proponent
- onsite audit – interviews/discussion with project proponent and Local stakeholders
- resolution of outstanding issues, preparing a draft validation report based on the audit findings and conclusions.
- technical review of the draft and final validation opinion along with other documents as considered appropriate by an independent competent technical review team.
- review of report by quality control team and
- the issuance of final validation report and opinion

Conclusion

The reviews of the initial PD v1.0 supporting documentation and subsequent follow-up actions have provided EPIC with sufficient evidence to determine the fulfilment of stated criteria. EPIC is of the opinion that the project activity “Enür Solar Power Plant Bundle Project” as described in the final PD v3.0^{/10/} meets all relevant requirements of BCR and has correctly applied the CDM approved small scale baseline and monitoring methodology AMS-I.D, v18.0^{/7/} and associated tools^{/8/}. The project activity involves the installation of a Greenfield Grid connected 4.246 MW Solar PV Power Plant in Republic of Türkiye.

The average annual generated energy is expected to be 6,955 MWh according to the generation license and the project will be able to deliver a reduction in emissions of around 4,413 tCO₂e per year.

2 Objective, scope and validation criteria

The scope of the validation is the independent and objective review of the BCR Project Document (PD) version 3.0^{/10/} dated 17/04/2025. The validation was performed between 04/06/2024 and 05/06/2024, on the basis of requirements of BCR Standard v3.4^{/1/}, BCR Project Cycle and all other issues related to the project validation according to Standard Operating Procedures (SOP) v1.3, BCR Validation and Verification Manual v2.4^{/2/}, BCR Avoiding Double Counting (ADC) v2.0^{/4/}, BCR Monitoring, Reporting and Verification (MRV) v1.0^{/2/}, BCR Tools: Sustainable Development Goals (SDGs) v1.0^{/2/}, Sustainable Development Safeguards (SDSs) v1.0^{/2/}, BCR Baseline and Additionality v1.3^{/2/}, ISO 14064-

2 & ISO 14064-3^{/6/}, applicable approved CDM methodology “AMS-I.D.: Grid connected renewable electricity generation, version 18.0^{/7/}, relevant UNFCCC criteria for the Clean Development Mechanism (CDM) and CORSIA criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. The objective of this validation activity is to have an independent third-party opinion for the assessment of the project design, and to ensure a thorough assessment of the proposed project activity against the BCR and applicable CDM requirements.

3 Validation process

3.1 Level of assurance and materiality

EPIC hereby confirms that the assumptions outlined in this validation report are reasonable, with respect to material errors, omissions, and misrepresentations. To ensure the reliability of these assumptions, all data used in the GHG emission reduction calculations has been thoroughly reviewed in its entirety, without any sampling.

3.2 Validation activities

3.2.1 Planning

The EPIC validation process is divided into three stages:

- Review of the project description in documents
- Interviews with the project proponent, project consultant, and other essential stakeholders through onsite audit.
- Final validation report and opinion.

A validation methodology was created for the project according to the BCR rules to ensure transparency. The protocol transparently defines the findings, criteria (requirements), validation methods, validation outcomes, and how the stated criteria(s) are met. The validation protocol is used to accomplish the following goals:

- It ensures a transparent validation process by documenting how a particular requirement has been validated as well as the result of the validation.

EPIC validation process applies the risk-based approach aimed at focusing on high-risk issues to the validation results whilst not omitting any part of the mandatory processes. A few discrepancies were found during the validation and the validation report was submitted to the project proponent, indicated under the titles corrective action requests (CARs) and clarification requests (CLs). CARs and CLs require the PP to take relevant actions. Criteria for judging items as CAR or CL are as follows:

Corrective action request (CAR):

- The project participant has made a mistake that will influence the ability of the project activity to achieve real, measurable additional emission reductions.
- The BCR's requirement have not been met, or
- There is risk that the Emission Reductions cannot be monitored or calculated.

Clarification Request (CL):

- Information is insufficient or not sufficiently clear to determine whether the applicable BCR requirements have been met.

The validation team raised 3 “Clarification Requests” and 9 “Corrective Action Requests” (CARs), indicating that further information is required to completely resolve an issue.

3.2.2 Sampling plan

No sampling approach has been used for the validation scope by the validation team.

3.2.3 Execution

The validation team conducted a preliminary evaluation of the project activity to determine the adequacy of the submitted documentation and to define the purpose and scope of the validation. The assessment included an initial review of the Project Description (PD v1.0)^{9/}, associated spreadsheets detailing emission reductions, and other supporting documents provided by the project proponent.

During this phase, the validation team evaluated whether the documentation was sufficiently complete and in line with the applicable methodological and regulatory requirements. The objective was to confirm that the project activity is clearly defined, the baseline scenario and additionality claims are reasonable, and the proposed monitoring plan is appropriate.

This preliminary assessment formed the basis for planning the subsequent validation steps, including a comprehensive document review, assessment of GHG calculations, and potential stakeholder consultation, as applicable.

The validation team has used standard auditing techniques to assess the project activity. As a first step of validation assessment, the validation team reviewed the submitted Project Description (hereafter referred as initial PD v1.0)^{9/} and emission reduction spread sheet against the BCR standard requirements. Information provided in the initial PD^{9/} is crosschecked with supporting evidence, publicly available data, other sources and by carrying out the independent background investigations. A complete list of documents

and other sources of information used for validation is provided in appendix 3 of Validation Report.

Based on the review, the validation team issued findings as corrective action request (CAR) for the non-conformities against the BCR standard requirements and clarification request (CL) for the insufficient information. Similarly, a forward action request (FAR) is raised for issues that require review during the subsequent Validation of the proposed BCR Project Activity.

3.2.3.1 Onsite inspection

Activity performed on site	Site location	Date - team members
Opening meeting for the on-site inspection. During the initial meeting, the validation team was introduced. It was confirmed/outlined the objectives and scope of the on-site inspection and it was confirmed the previously planned agenda for the on-site inspection. The representatives of the project proponent Enur A.S. also introduced themselves and completed/signed the EPIC validation list of participants form for the on-site visit.	Project site office	04-June-2024- Unnikannan
Visual inspection of the project's site, solar PVs, and confirmation of correctness of related information included in the PD and the supporting documentation regarding the implementation (project design) and operation of the assessed BCR project activity.	Project site	04-June-2024- Unnikannan
Visual inspection of related monitoring equipment Energy meters, Solar PVs, Substation, data acquisition and storage infrastructure (database) and monitoring instruments); and checking/confirmation of correctness and appropriateness of data processing and data recording by the so far under operation project's monitoring infrastructure as well as correctness of related information included in the BCR PD ^{/2/} for the BCR project activity.	Project site	05-June-2024- Unnikannan

Checking of the documented evidence provided by the project owner/operator (original documents that are kept stored in the project site + additional documentation used for cross-checking of calculation and information) and confirmation of correctness of related information presented in the project description. Such checking also encompassed assessment related to performance of calibration events in monitoring instruments/equipment and overall QA/QC practices as part of the operation of the BCR project activity (incl. assessment of authorities and responsibilities of project management and training related issues).	Site office	05-June-2024 – Unnikannan
---	-------------	------------------------------

3.2.3.2 Interviews

S.no	Name	Position/ Designation and Address	Details of the Interview
1.	Mahmut Oztimur	Project holder – Representative	Investment decision, Legal Ownership, Legal Requirements, Technical Details, electricity generation, Monitoring system, calibration frequency, Infrastructure, connection Agreement, Overall Project management.
2.	Abdurahman Zengin	General Manager – Enur A.S.	Technical Details, electricity generation, Monitoring system, calibration frequency, Infrastructure, connection Agreement, Overall Project management.

3.	Hasan Aydic	Energy Consultant – Enur A.S	Completeness check, desk review, Interview, issuance of findings, Monitoring Report preparation. Baseline, monitoring plan, Proof of title, Technical Details, electricity generation, Monitoring system, calibration frequency, Infrastructure, Overall Project management.
4.	Bulent Celik	Globia Consultancy – Technical Director	Completeness check, desk review, Interview, issuance of findings, Monitoring Report preparation. Baseline, monitoring plan, Proof of title, Technical Details, electricity generation, Monitoring system, calibration frequency, Infrastructure, Overall Project management..
5.	Bulent Birol	Globia Consultancy – Managing Director	Completeness check, desk review, Interview, issuance of findings, Monitoring Report preparation. Baseline, monitoring plan, Proof of title, Technical Details, electricity generation, Monitoring system, calibration frequency, Infrastructure, Overall Project management.
6.	Ramazan Duman	Engineer – Enur A.S	Technical Details, electricity generation, Monitoring system, calibration frequency, Infrastructure, Wheeling

			Agreement, Overall Project management.
7.	Osman Ozturk	Local Stakeholder	Local stakeholder consultation, On-going communication as part of local stakeholder engagement, difficulties faced due to project (if any), complaints or concerns (if any), channel of communication with the project authorities.
8.	Ramazan Asden	Local Stakeholder	
9.	Halil Ozdemir	Local Stakeholder	

3.2.3.3 Findings

EPIC validation process applies the risk-based approach aimed at focusing on high-risk issues to the validation results whilst not omitting any part of the mandatory processes. A few discrepancies were found during the validation and the validation report was submitted to the project proponent, indicated under the titles corrective action requests (CARs) and clarification requests (CLs). CARs and CLs require the PP to take relevant actions. Criteria for judging items as CAR or CL are as follows:

Corrective action request (CAR):

- The project participant has made a mistake that will influence the ability of the project activity to achieve real, measurable additional emission reductions.
- The BCR's requirement have not been met, or
- There is risk that the Emission Reductions cannot be monitored or calculated.

Clarification Request (CL):

- Information is insufficient or not sufficiently clear to determine whether the applicable BCR requirements have been met.

The validation team raised 3 “Clarification Requests” and 9 “Corrective Action Requests” (CARs), indicating that further information is required to completely resolve an issue.

The objective of this step of the validation was to resolve any outstanding issues, such as corrective action requests and clarification requests that needed to be addressed before EPIC could issue a positive conclusion on the project design. Clarification request (CL) is raised if the project reporting lacks transparency and further information is needed to determine if there exists a material discrepancy. Corrective action request (CAR) is raised

if the validation has identified a material discrepancy or non-conformance that the project proponent must address. All the findings raised during the validation process were communicated to project proponent and the same is included in Appendix II of this report. Further, the CARs and CLs are closed by the validation team when PP revises the initial PD v1.0^{/9/} and/or delivers sufficient additional elucidations and evidence to address the concern raised. The findings are depicted in a tabular form along with the responses received from the PP and the opinion of the validation team on the received responses. A total of 03 CLs, 09 CARs and 00 FARs were raised during this validation process. The PP had provided sufficient clarification with respect to the issues raised by validation team and the necessary corrections were incorporated into the PD v1.0^{/9/} and ER sheet v1.0^{/12/}, thereby revising it to PD v3.0^{/10/} and ER sheet v2.0^{/12/}. Thus, all the findings raised for this validation were closed by the validation team.

3.3 Validation team

Name	Role	Components received
Mr. R. Vijayaraghavan (Remote)	Lead Auditor/Technical Expert/Financial Expert	Completeness check, desk review, issuance of findings, report preparation.
Mr. Unnikannan R.V. (Onsite)	Auditor	Completeness check, desk review, onsite visit, interviews with project representatives and stakeholders, issuance of findings, report preparation.
Mr. Karthik Lakshman (Remote)	Auditor	Completeness check, Desk review, Report preparation
Mr. Omur Can Sari (Remote)	Host Country Expert	document review, interview with PP.

Ms. Priyanka M S	Technical reviewer	Technical Issues related to project.
------------------	--------------------	--------------------------------------

4 Validation findings

4.1 Project description

The validation team, in accordance with the requirements outlined in the BCR Project Standard (v.3.4)^{/1/} and the BCR Validation and Verification Manual for Greenhouse Gas Projects (v.2.4)^{/2/}, conducted a thorough review of the project activity's details as provided in Section 1. This review included an assessment of various aspects such as the project's components, installed capacities, technical specifications of the solar PVs, relevant dates, and contributions to Sustainable Development Goals (SDGs). The evaluation process involved on-site inspections, stakeholder interviews, and document reviews.

The project owner submitted the KML file of the project activity for validation. A comparison of the project coordinates listed in the Project Design (PD) document^{/10/} with the KML file^{/20/} confirmed their alignment. Furthermore, when the project name was entered into Google Earth, the displayed coordinates matched those specified in the PD^{/10/}.

Upon reviewing official documents, including the commissioning document^{/13/}, connection agreement^{/15/}, the validation team verified that the project holder is Enür Enerji Üretim Sanayi ve Ticaret Anonim Şirketi and the project participants are:

- Enür Enerji Üretim Sanayi ve Ticaret Anonim Şirketi
- Renda Enerji Üretim Danışmanlık Sanayi ve Ticaret Anonim Şirketi
- Orhaneli Elektrik Enerji Üretim Sanayi ve Ticaret Anonim Şirketi
- Tabii Kaynaklar Enerji Üretim Sanayi ve Ticaret Anonim Şirketi
- Serhat Öztimur

The legal authorizations and approvals obtained by the project owner are detailed in Appendix 2 of this document.

The technical specifications^{/22/} of the installed Solar PVs, Inverters were cross-checked against the provisional acceptance protocols. The validation team confirmed the number of solar PVs and their installed capacity based on these protocols. The project activity is classified as a greenfield project. An analysis of the KML file^{/20/} for the area prior to 2018 verified that the site was undeveloped land.

Currently, the proposed Enür Solar Power Plant Bundle Project consists of a group of 5 individual unlicensed Photovoltaic Solar Power Plants (SPP) located in boundary of Beleneoluk village, Orhaneli District in Bursa province of Türkiye with a total installed capacity of 4.246 MW. The estimated annual electricity generation of 6,955 MWh aligns with the figures provided in the generation license.

4.2 Project type and eligibility

The project validation team has reviewed the project documentation to ensure compliance with the BCR Project Standard v3.4^{/1/}, including the PD^{/10/} available on the BCR website and the Provisional Acceptance Protocols. Based on the review, the project type specified in the PD aligns with the requirements of the standard.

The project start date is confirmed as February 19, 2018, supported by the commissioning certificates^{/13/} of the project activity. The project activity is not legally mandated, nor does it implement any legally enforced requirements. The project owner, Evrencik Rüzgar Enerjisinden Elektrik Üretim A.Ş., is a private entity.

For wind power projects in Türkiye, compliance with host country legal requirements is essential, and this is verified through various inspections. The Evrencik Wind Power Plant (WPP) holds a valid generation license and complies with the following national laws:

- Environmental Law
- Electricity Market Law
- Law on the Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy
- Energy Efficiency Law

Non-compliance with these laws would prevent the issuance of operational permits for wind power plants in Türkiye.

The validation team confirmed that the project activity achieves real, measurable, and additional emission reductions compared to its baseline. This was verified through a review and reproduction of the emission reduction calculations. Additionally, the calibration records of the electricity meters were examined.

The project applies the approved CDM Baseline and Monitoring Methodology AMS-I.D.: Grid connected renewable electricity generation, version 18.0^{/7/} to calculate emission reductions. The issue of double counting was thoroughly assessed. The I-REC Registry (<https://evident.services/device-register>) and the project databases of VCS (<http://vcsprojectdatabase.org/#/home>) and GS (<https://registry.goldstandard.org/projects?q=&page=1>) and GCC (https://projects.globalcarboncouncil.com/pages/gcc_home) were reviewed. The project does not appear in any of these registries, nor does it issue RECs or VER carbon credits. As

CDM projects are not applicable in Türkiye, and the project is not listed under any domestic REC schemes, double counting concerns were effectively ruled out.

This comprehensive review confirms the project's eligibility under the BCR standard and its adherence to relevant legal and methodological requirements.

Table 1. Project type and eligibility

<i>Eligibility criteria</i>	<i>Evaluation by validation body</i>
<i>Scope of the BCR Standard</i>	The GHG covered under the Kyoto Protocol, namely Carbon Dioxide(CO₂), Methane(CH₄), and Nitrous Oxide(N₂O), are addressed in this project. The GHG reduction methodologies utilized are developed or approved by the BCR and are specifically tailored to activities within the energy sector. The project quantifies measurable GHG emission reductions achieved through the implementation of these energy sector activities. The Conformity Assessment Body(CAB)/Validation and Verification Body(VVB) has verified that the project scope aligns with the applicable methodologies and sectoral requirements.
<i>Project type</i>	Activities in the Energy sector (Solar)
<i>Project activity(es)</i>	Solar Energy
<i>Project scale (if applicable)</i>	Small scale

4.3 Grouped project (if applicable)

The project is not a grouped project.

4.4 Other GHG program

The validation team assessed in accordance with the BCR double counting tool version 2.0 and it has been applied correctly in the PD.

The validation team checked the Verra website (<https://registry.verra.org/app/search/VCS>), GS website (<https://registry.goldstandard.org/projects?q=&page=1>), and GCC website (https://projects.globalcarboncouncil.com/pages/submitted_projects) with the help of the project title, capacity of the project, project location etc., and confirms that this project is not registered or in process of registration under Verra, or GS or other projects of GCC. The validation team also determined that the project is not currently registered with any ETS (domestic and worldwide for I-REC) (<https://fotonplatform.com/santraller/>).

4.5 Quantification of GHG emission reductions and removals

The validation team assessed the quantification of GHG emissions reductions and removals in accordance with the applied methodology^{/7/} and VVM^{/2/}. The following steps were assessed by the validation team:

1. The project documentation was reviewed to confirm the applicability of the applied methodology AMS-I.D. v18.0^{/7/}.
2. The baseline scenario was assessed to ensure that it represents the most plausible alternative in the absence of the project and the calculations of the baseline emissions and parameters as prescribed in the methodology.
3. The project scenario is reviewed to confirm that it includes all activities contributing to the GHG emission reductions or removals.
4. The additionality is reviewed to confirm that the proposed GHG reductions or removals are not part of the baseline scenario.
5. The calculations used to quantify net GHG emission reductions is verified in accordance with the applied methodology to confirm the accuracy of the baseline and project emission estimates, as well as considering any leakage.
6. The monitoring plan is reviewed to ensure that it captures all necessary parameters and is aligned with the requirements of the methodology.

The validation process ensures that the quantified GHG emission reductions or removals are credible, accurately calculated and meets all applicable requirements of the BCR standard^{/1/}.

4.5.1 Start date and quantification period

The start date of the project activity is 19/02/2018, which refers to the start date of the commercial operations of the project activity. The validation team confirmed the start date of the project activity from the provisional acceptance protocol.

The quantification period of the project is 7 years which is renewable twice. The date of the first quantification period is 19/02/2018 to 18/02/2025, which is inline with the BCR requirements.

The validation team confirmed that the start date and the quantification period is in accordance with the BCR requirements.

4.5.2 Application of the selected methodology and tools

4.5.2.1 Title and Reference

The project applies the CDM approved small-scale methodology “AMS-I.D.: Grid-connected renewable electricity generation, version 18.0^{/7/} and the associated tools.

The AMS-I.D. refers to the following tools^{/8/}:

- TOOL07: Tool to calculate the emission factor for an electricity system (v7.0)
- TOOL21: Demonstration of additionality of small-scale project activities (V13.1)
- TOOL27: Investment Analysis (v14.0)
- Guidelines: General guidelines for SSC CDM methodologies (v23.1)

Furthermore, the BCR projects are required to follow the latest version of the BCR standard and the tools, the following tools are used by the project:

- BCR Standard v3.4^{/1/}
- BCR Avoidance double counting tool v2.0^{/4/}
- BCR Sustainable Development Safeguards tool v1.1^{/2/}
- BCR Permanence and risk management tool v1.1^{/3/}

The validation team confirms that the CDM methodology^{/7/} and the relevant tools^{/8/} of CDM and BCR are chosen and applied correctly based on the requirements of the applied methodology.

4.5.2.2 Applicability

Applicability Conditions	Validator opinion
This methodology is applicable to project activities that: a) Install a Greenfield plant; b) Involve a capacity addition in (an) existing plant(s) c) Involve a retrofit of (an) existing plant(s) d) Involve a rehabilitation of (an) existing plant(s)/unit(s) e) Involve a replacement of (an) existing plant(s)	The Project activity is found to be a Greenfield Project and hence the specified methodology is applicable. The validation team reviewed the land documents, EIA letter, EPC agreement and by using Google earth Pro Application with the co-ordinates of the solar photovoltaic power plant using the timeline feature. As the project was Implemented in the year 2018 the validation team checked the data for the years 2018, 2017 and 2016 and confirms that prior to the implementation of the

	project activity the land was barren and there were no other projects present at the project site.
Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: a) The project activity is implemented in an existing reservoir with no change in the volume of reservoir. b) The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m ² . c) The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m ² .	The Project activity is a Solar Photovoltaic Power Plant and hence this condition is not applicable.
If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW	The solar photovoltaic power plant is only of renewable type and the total installed capacity is 4.246 MW. Hence this condition is not applicable
Combined heat and power (co-generation) systems are not eligible under this category	As described in the above applicability conditions, the proposed project activity is a solar based power project and hence, this condition does not apply.

In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units	The Project activity is a greenfield project activity with 4.246 MW capacity and does not involve any capacity addition. Hence the criteria is not applicable.
In the case of retrofit, rehabilitation or replacement, to qualify as a small-scale project, the total output of the retrofitted, rehabilitated or replacement power plant/unit shall not exceed the limit of 15 MW	Not Applicable as the project activity is neither retrofit nor modification of existing facility. The project activity is a greenfield project, and the installed capacity of the project is 4.246 MW, which is not exceeding the limit for small scale projects. This is a grid-connected renewable energy power generation project activity involving installation of Greenfield power plant i.e., solar photovoltaic power.
In the case of landfill gas, waste gas, wastewater treatment and agro-industries projects, recovered methane emissions are eligible under a relevant Type III category. If the recovered methane is used for electricity generation for supply to a grid then the baseline for the electricity component shall be in accordance with procedure prescribed under this methodology. If the recovered methane is used for heat generation or cogeneration other applicable Type-I methodologies such as “AMS-I.C.: Thermal energy production with or without electricity” shall be explored	As described in the above applicability conditions, the proposed project activity is a solar based power project and hence this condition does not apply.
In case biomass is sourced from dedicated plantations, the applicability criteria in the tool “Project emissions from cultivation of biomass” shall apply	As described in the above applicability conditions, the proposed project activity is a solar based power project and hence this condition does not apply.

The project verification team confirmed that this project operates by generation of electricity using renewable source of energy (solar energy) and therefore does not result in any emission from project or leakages other than those described in methodology.

The applicability of this methodology to the project activity is justified as:

- The project involves installation of a Greenfield solar photovoltaic power plant which contributes the growing demand of electricity in Republic of Türkiye. The project replaces the power that is generated from operation of grid-connected power plants and by the addition of new generation sources into the grid..
- The project activity is connected to the Turkish National Grid.
- The project does not involve any on-site switch from fossil fuels to a renewable source.

Tool 07: Methodological tool to calculate the emission factor for an electricity system. Vo7.o

Applicability Conditions	Validator opinion
This tool may be applied to estimate the OM, BM and/or 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)	The project activity involves construction and operation of a 4.246 MW solar PV power plant in Türkiye. The generated electricity is sold to Turkish national grid which is confirmed by reviewing the connection agreement, electricity invoice and electricity generation records. The baseline scenario is that the 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 into the grid. Therefore, tool 7 ^{/8/} is applicable to calculate the OM, BM, and CM.
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.	The project owner has opted for grid power plants only by referring publication of Turkish Ministry of Energy and Natural Resources which is indicating Türkiye's National Electric Grid Emission Factor data sheet for the year of 2019. (Publication

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 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.	includes calculated Emission Factor values that are Operating Margin (OM), Growth Based Margin (Build Margin-BM) and Combined Margin (CM) Emission Factors, for the relevant year with usage of the CDM Emission factor tool -Tool 07 - v07.0)^{8/}. This is accepted by the project verification team.
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.	As per UNFCCC, Türkiye is listed under Annex I countries. However, BCR accepts projects from all over the world, and it does not categorize the countries as per any criteria. Hence, this condition is not applicable to this project activity.
Under this tool, the value applied to the CO₂ emission factor of biofuels is zero.	The Turkish Ministry of Energy and Natural Resources has considered the CO₂ emission factor of biofuels as zero for the calculation of combined margin.

Tool 21: Methodological tool to Demonstration of additionality of small-scale project activities v13.1^{8/}

Applicability Conditions	Validator opinion
The use of the methodological tool “Demonstration of additionality of small-scale project activities” is not mandatory for project participants when proposing new methodologies. Project participants and coordinating/managing entities may propose alternative methods to demonstrate additionality for consideration by the Executive Board.	The project applies this tool to demonstrate additionality as it falls under small scale category.
Project participants and coordinating/managing entities may also apply “TOOL19: Demonstration of additionality of microscale project activities” as applicable.	The proposed project activity is not a microscale project activity. Hence, this is not applicable

Tool 27: Investment analysis v14.0^{/8/}

Applicability Conditions	Validator opinion
This methodological tool is applicable to CDM project activities and programmes of activities (PoAs) that conduct an investment analysis for the demonstration of additionality and/or the identification of the baseline scenario.	As the Project uses TOOL21, it is acceptable to use the TOOL27/8/ to demonstrate the additionality of the project.
In case the applied approved baseline and monitoring methodology contains requirements for the investment analysis that are different from those described in this methodological tool, the requirements contained in the methodology shall prevail.	The project uses the CDM approved small scale methodology AMS-I.D. v18.0, however the methodology does not specify to use the investment analysis tool. Hence, this condition is not applicable.

The validation team confirms that it has evaluated each applicability requirement stated in the selected methodology as well as the relevant information in PD v3.0^{/10/} against these criteria. The CDM methodology and the tools chosen for the project activity are relevant.

4.5.2.3 Methodology deviations (if applicable)

There is no methodological deviation, thus it is not applicable.

4.5.3 Project boundary, sources and GHGs

As per the applied methodology, the spatial extent of the project boundary includes the project power plant, and all power plants connected physically to the electricity system that the project power plant is connected to. Therefore, the project boundary includes the power plant and the spatial extent of the power plants that are physically connected through transmission and distribution lines to supply electricity to the Turkish National Grid.

In the project boundary, there are no emissions of carbon dioxide from Diesel Generator sets as there is no DG set installed within the project boundary, which is confirmed during the onsite visit and by cross checking the EPC agreement, connection agreement, feasibility report and by interviewing the project representatives.

The baseline emissions are calculated based on the quantity of net electricity generation that is produced and fed into the grid because of the implementation of the BCR project activity in the year *y*. Hence, the emission from the on-site electricity use (as import of electricity) in the project activity (if any) is accounted for by considering the net electricity generation in the calculation of the emission reductions.

The project boundary is clearly depicted with the help of a pictorial representation in 3.1.4 of the PD^{/10/} by the PP and duly verified by the validation team during the onsite and the checking the connection agreement, electricity generation records and electricity invoices. The components of the project boundary mentioned in the PD^{/10/} were found in compliance with the para 18 of the applied methodology AMS-I.D. v18.0^{/7/}. the geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the Turkish National grid is available.

The validation team confirmed that all GHG sources required by the methodology have been included within the project boundary. It was assessed that no emission sources related to the project will any deviation from the applicability of the methodology or accuracy of the emission reductions.

4.5.3.1 Eligible areas in the GHG project boundaries (for AFOLU projects)

Not applicable.

4.5.4 Baseline or reference scenario

The approach for identifying the most feasible baseline scenario generated from the applied methodology was followed appropriately, and it is transparently and adequately described in the PD^{/10/}.

As per the para 19 of the applied methodology AMS-I.D. version 18.0^{/7/}, the baseline scenario for greenfield projects is given as:

“The baseline scenario is that the 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 into the grid.”

According to the PD^{/10/}, the project comprises the installation and the operation of a new renewable energy technologies to generate power and supply it to the grid. In the absence of the project activities, the comparable quantity of power would have supplied by the Turkish national grid, which is primarily fed by fossil-fueled plants and the addition of new generating sources according to the data provided by the TEİAŞ. As a result, the baseline for project activities is the equal quantity of the electricity from the Turkish National grid.

According to para 22 of the applied methodology, baseline emissions only comprise CO₂ emissions from electricity generation at power plants displaced by project activities. The baseline emissions are calculated by multiplying the electrical energy baseline in MWh produced by the renewable producing unit by the grid emission factor. The grid emission factor is determined in a clear cautious way, according to para 22 of the applied methodology^{/8/}. This was confirmed by the studying the Emission factor of National grid calculation document published on the website of Türkiye's Ministry of Energy and Natural Resources.

4.5.5 Additionality

Additionality of the project is demonstrated using the methodological tool- TOOL01- “Demonstration and assessment of additionality” version 07.0.0^{/8/}, TOOL21- “Demonstration of additionality of small-scale project activities (Version 13.1)”^{/8/} and TOOL27 – “Investment analysis (Version 14.0)”^{/8/} as specified by the applied methodology.

Step 1: Identification of Alternatives

The first step is to identify credible alternatives to the project activity that could achieve the same purpose. The alternative scenarios are :

1. The baseline scenario is electricity generation from the Turkish grid, dominated by fossil fuels.

2. Another alternative is proceeding with the project without seeking carbon credits.

Validation opinion:

The validation team evaluated these alternatives based on their compliance with applicable legal and regulatory requirements. The identified alternative scenarios are appropriate. The application of the AMS-I.D. version 18.0^{/7/} and TOOL01^{/8/} ensures that the alternatives considered are consistent with the guidelines.

Step 2: Investment analysis:

Sub-step 2a: Determine appropriate analysis method

Validator Opinion:

Investment analysis determines whether the project is financially attractive without the carbon revenue. The following three methods are assessed:

1. Simple Cost Analysis: the method is not suitable as the project generates revenue through electricity sales.
2. Investment Comparison Analysis: the method is not suitable because there are no directly comparable investment alternatives.
3. Benchmark Analysis: the method is most appropriate since it compares the project's internal rate of return (IRR) against an external benchmark, as guided by TOOL27^{/8/}.

The validation team confirms the selection of the Benchmark Analysis is consistent with methodology requirements and ensures an objective assessment.

Sub-step 2b: Application of Benchmark Analysis:

Validator Opinion:

The benchmark used for comparison is the nominal post-tax equity IRR. This indicator allows for effective comparison of the project returns with an appropriate benchmark. The benchmark represents the minimum rate of return that would justify the financial validity of the project and therefore its implementation.

The investment analysis using Benchmark analysis approach (Option III) has been chosen. In the following section, Equity IRR(post-tax) is used to demonstrate the additionality of the project. Internal Rate of Return (IRR) on equity is taken for this project to be the financial indicator for assessing the financial viability of the project activity.

Equity IRR is the cash flow returns to equity shareholders after debt repayments. Equity IRR takes into consideration that you use debt for the project, so the inflows are the cash

flows required minus any debt that was raised for the project. The outflows are cash flows from the project minus any interest and debt repayments.

To be able to assess the financial viability of the project a benchmark to compare the equity IRR is needed. The “Methodological Tool - Investment analysis Version 11.0”^{/8/}, provides the default values for the expected return on equity as an appendix. The default values for the cost of equity are given as an appendix in the tool. Using this tool and the referenced document, other countries’ Moody’s rating equal to Turkey’s Moody’s rating were extracted and it was observed that the return on equity costs were the same. Turkey’s Moody’s index (Ba1) was comparable to countries with the same Moody’s index, and the same default benchmark value from this point of view a reasonable and appropriate benchmark to compare the Equity IRR can be taken as 9.06%. Eventually the applying benchmark will be 11.52% for comparison with the equity IRR in this investment analysis of the Hilvan Group SPP project.

Equity IRR:

The expected return on equity is estimated using default values stated for various countries in the Appendix of the methodological tool Investment Analysis and for renewable energy projects which fall under the sectoral scope 1 i.e., Energy Industries, as there is no default value for Turkey, the project participant has applied the benchmark of a country with the same Moody’s index as Turkey which is 9.06% and it is adjusted to a nominal value of 25.44% using IMF inflation data.

- This adjustment accounts for inflation in Turkey, ensuring the benchmark reflects economic conditions accurately.
- The benchmark serves as a threshold to evaluate the project’s financial attractiveness.

The validation team reviewed the approach and confirms that the benchmark is determined in a conservative and transparent manner, aligning with methodological guidelines.

Sub-step 2c: Calculation and Comparison of Financial indicators:

Parameters	Data Value	Unit	Validator Opinion
Installed Capacity	4.246	MWe	The installed capacity has been verified from the EPC agreement ^{/17/} , and the commissioning certificates of the power plants and it aligns with the technical design specifications ^{/22/} provided by the PP. The same was further cross checked during the

			onsite visit by the validation team. The validation team confirms that the installed capacity is accurate and consistent with the project's feasibility report ^{/23/} .
Plant Load Factor	18.70%	%	The Plant Load Factor(PLF) is calculated based on operational and meteorological data. It represents the expected utilization of the installed capacity over time. This value of 18.70% is verified against the calculations provided in the feasibility study ^{/23/} and is found to be accurate.
Projected Generation	6,995	MWh/ year	The annual electricity generation of 6,995 MWh/year project is derived from the feasibility study data ^{/23/} . This value considers the installed capacity and the plant load factor, and its calculations is consistent with the industry standards for similar projects.
Average Annual Emission Reductions	4,413	tCO₂e/ year	The average annual emission reduction of 4,413 tCO ₂ e/year is calculated based on the project's expected electricity generation and the grid emission factor. This calculation adheres to the applied CDM methodology and is verified against the project documents.
Feed-in-Tariff	13.3	ct/kWh	The feed-in-tariff for renewable energy in Turkey is set at 13.3 ct/kWh, as per the legal framework outlines in Law no.5346. The validation team verifies this value against the official legislation, confirming its accuracy and applicable to the project and it was further cross-checked with the electricity invoices.

Market Price After 10 years	6.6	ct/kWh	The projected market price of electricity after the initial feed-in-tariff period is 6.6 ct/kWh, sourced from the Transparency Platform of Turkey's Energy markets.
Corporate Tax	20	%	The corporate tax rate of 20% is verified against the official records of the Ministry of Treasury and Finance of Turkey. This rate is consistent with the National Taxation policy applicable to the businesses.
Investment Cost	5,300,073	USD	The total investment cost of 5,300,073 is sourced from the feasibility report ^{/23/} (section 6.1.1, cost table, pp 33). The validation team reviewed the breakdown and confirmed the accuracy of this value.
Operational and Maintenance Cost (O&M)	97,750	USD	The annual O&M cost of 97,750 USD is verified against the feasibility report ^{/23/} (section 6.1.6.2, Cost table, pp 35). The validation team confirms this value as reasonable and aligned with similar projects in the region.
Debt/Equity Ratio	0	%	The project is entirely equity-financed, with no debt component. This financing structure is confirmed through the feasibility report data ^{/23/} and through the interviews with the PP.
Lifetime	25	Years	The financial analysis is conducted over a 25-year assessment period, consistent with the project's operational lifespan. The validation team verified the lifespan from the feasibility report and the technical

			specifications of the project components.
--	--	--	---

The Equity IRR calculations and assumptions provided in a spreadsheet are consistent with the values provided in the detailed project report and have been cross checked and verified by the validation team. The assumptions used in the calculations are appropriate and have been verified by the validation team. Based on the above assumptions, the Equity IRR works out to 16.04% in contrast to the benchmark return of 24.99% chosen for Equity IRR. This works out to be at 16.21% IRR considering VCC revenues.

Sensitivity analysis:

The PP analyzed and presented a 10% variation in the essential assumptions (i.e., project cost, yearly O&M cost, PLF and Energy price), and the evaluation was completed at a 10% variation in accordance with Tool 27: "Investment Analysis"^{8/}.

The input parameters that constituted more than 20% of the total project cost have been identified and considered in the sensitivity analysis:

IRR w/o carbon revenue	-10%	0%	10%
Project Cost	18.36%	16.04%	14.12%
Operating and maintenance Cost	16.23%	16.04%	15.85%
PLF	14.78%	16.04%	17.26%
Energy price	15.51%	16.04%	16.57%

The assessment of the variation of the parameters are as follows:

Parameter	Variation	Validator Opinion
Project Cost	+/-10%	The sensitivity analysis shows that a 10% decrease in projects cost leads to an increase in the Internal Rate of Return (IRR) by 18.36%. Conversely, a 10% increase in project cost results in an IRR of 14.12%, which is below the benchmark. However, given that the project is already implemented and operational, the actual investment cost of \$5.306 million, which

		remains below the benchmark threshold. Therefore, under current conditions, the project does not breach the benchmark.
O&M Cost	+/-10%	The scenario in which Operation & Maintenance (O&M) expenses are entirely eliminated results in an IRR of 17.88%. However, this scenario is unrealistic and unattainable. The more realistic sensitivity analysis, considering a -10% variation in O&M costs, indicates an IRR of 16.23%, which does not breach the benchmark. Therefore, while reducing O&M costs significantly is not feasible, the analysis confirms that the project remains financially viable under varied conditions.
PLF	+/-10%	The sensitivity analysis show that a 10% increase of the generation leads to increase in the IRR of 17.26%. Conversely, a 10% decrease in project cost results in an IRR of 14.78%, which is below the benchmark. The IRR will breach the benchmark with the increase of 46.93% of the generation, which is not realistic in nature considering the PLF and the degrading of the solar PVs. The actual generation of the project since the commissioning is 48,723 MWh, where the estimated amount of generation is 48,965 MWh. The actual generation is lesser than the estimated, thus the benchmark is not breached with the actual generation.
Energy price	+/-10%	The project's energy price is fixed electricity price of \$13.3/MWh for the first 10 years. The sensitivity analysis show that a 10% increase of the generation leads to increase in the IRR of 16.57%. Conversely, a 10% decrease in project cost results in an IRR of 15.51%, which is below the benchmark. However, the tariff is fixed for the ten years, thus there won't be any increase in the tariff. The validation team assessed the point of breach of benchmark, it is verified that at an increase of 46.93% in generation, the equity IRR breaches the benchmark. The actual

		generation data available is for complete operational period of 6 years. During this period, the average realized generation did not exceed the benchmark, so the likelihood of achieving a higher generation breaching the benchmark for the remaining period is very remote.
--	--	--

The sensitivity analysis results were deemed to be suitable and computed in-line with the tool, as confirmed by the IRR sheet.

The benchmark is not breached in the sensitivity analysis, so the project activity is considered additional.

In conclusion, the validation team determines that the project successfully identifies realistic alternatives and applies the correct methodology for baseline determination. The investment analysis, sensitivity analysis and collectively demonstrate the project's additionality. By adhering to CDM methodologies, including AMS-I.D, TOOL27, and TOOL01, the project activity complies with international standards. The validation opinion confirms that the project is additional to the baseline scenario and is eligible for carbon credits under the BCR Standard.

4.5.6 Conservative approach and uncertainty management

The net electricity generated by the project will be continuously measured using a main electricity meter(sealed meters) installed at the substation grid interface. This measurement will be recorded monthly. Additionally, a backup electricity meter is in place to cross-check. Both meters comply with regulatory requirements for electricity metering.

During the on-site validation, the validation team inspected both the main and backup meters. Calibration documentation, including the first index protocol, was reviewed and cross-checked with the physical labels on the meters. The technical specifications of the meters were verified through these documents.

The distribution company UEDAŞ- Uludağ Elektrik Dağıtım A.Ş. is responsible for the control and maintenance of the electricity meters. Net electricity generation data, as reported by UEDAŞ and corroborated with screenshots shared with the validation team, will serve as the primary source for monitoring. The records from the on-site meters will act as a secondary cross-check source to ensure accuracy.

The validation team (VVB) thoroughly reviewed the baseline emission reduction calculations using the provided Excel sheets, confirming their accuracy. All project-related

data will be securely retained for at least two years beyond the crediting period for quality assurance and quality control (QA/QC) purposes.

Meter calibration and maintenance will adhere to the Bylaw on Metering and Metering Devices. Before commissioning the power plant, the meters were calibrated and sealed by UEDAŞ. Future calibrations will be conducted by UEDAŞ if discrepancies arise between the two devices. The initial calibration of the meters occurred on August 22, 2017, and periodic recalibration will be performed every 10 years, as mandated by regulations.

The meters used are classified as 0.5s, ensuring a measurement accuracy within a $\pm 0.5\%$ error range, which is well within regulatory limits.

Based on document reviews and interviews conducted during the physical audit, Re Carbon Ltd. confirms that the project description is accurate, comprehensive, and provides a clear understanding of the project's scope and nature.

4.5.7 Leakage and non-permanence

According to AMS-I.D. v18.0, and BCR permanence and risk management tool version 1.1 there is no risk of leakage and/or non-permanence in solar power plants therefore this step is not applicable.

4.5.8 Mitigation results

4.5.8.1 GHG baseline emissions

All the equations, formulas and assumptions are correctly applied as per the applied methodology AMS-I.D. v18.0.

The emission factor of turkey used for the calculation is sourced from the publication by Turkish ministry of Energy and Natural Resources on 18/03/2024 using TOOL 7 version 07.0: "Tool to calculate the emission factor for an electricity system". Both operating margin emission factor and build margin emission factor data are separately specified by the Turkish Ministry of Energy and Natural Resources.

The baseline emission factor ($EF_{grid, y}$) was calculated by the holder of the project activity using the provisions of the latest version of the "Methodological Tool for calculating the emission factor of an electrical system as the margin combined (CM)", which consists of the combination of the operating margin (OM) and the Build margin (BM).

$$EF_{grid, y} = EF_{grid, CM, y}$$

The operating margin emission factor: $EF_{grid, OM, y} = 0.7279 \text{ tCO}_2/\text{MWh}$

And build margin emission factor: $EF_{grid, BM, y} = 0.3541 \text{ tCO}_2/\text{MWh}$

The combined emission factor is calculated as follows:

$$EF_{\text{grid,CM},y} = EF_{\text{grid,OM},y} \times w_{\text{OM}} + EF_{\text{grid,BM},y} \times w_{\text{BM}}$$

Where:

w_{OM} : Weighting of OM emission factor (%)

w_{BM} : Weighting of BM emission factor (%)

and

$$w_{\text{OM}} = 0.75$$

$$w_{\text{BM}} = 0.25$$

$$EF_{\text{grid,CM},y} = 0.75 \times 0.7279 + 0.25 \times 0.3541 = 0.6345 \text{ tCO}_2/\text{MWh}$$

This factor will be an ex-ante fixed parameter and will not be monitored during the first crediting period.

For the estimation of the annual baseline emissions of the project activity:

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

Since the project activity is the installation of a greenfield power plant, $EF_{\text{grid},y}$ is to be calculated as follows:

$$EF_{\text{grid},y} = EG_{\text{faciliy},y}$$

Where:

BE_y : Baseline emissions in year y (tCO₂/yr)

$EG_{\text{faciliy},y}$: Electricity supplied by the project to the grid and equal to 6,995 MWh/yr.

$EF_{\text{grid,CM},y}$: Combined margin CO₂ emission factor for the grid and equal to 0.6345 tCO₂/MWh.

Therefore,

$$BE_y = 6,995 \times 0.6345 = 4,413 \text{ (tCO}_2/\text{yr)}.$$

In conclusion, the validation team confirms that the value included in the PD v3.0^{/10/} for baseline emissions (4,413 tCO₂/yr) has been adequately justified.

Project Emissions:

The photovoltaic solar power generation plant does not use any fossil fuel for the generation of electricity and do not emit any GHG gas. Hence the project emission from the project activity is zero. As per para 39 of the applied methodology AMS I D v18.0, most of the renewable project activities have $PE_y = 0$. As the proposed project is a solar PV project activity, the project verification team confirms that paras 39(a) and 39(b) do not apply to this project activity. Therefore, the project verification team confirms that emissions from this project activity is Zero.

Further, as per para 40 of the applied methodology AMS I D v18.0⁷¹, 'CO₂ emissions from on-site consumption of fossil fuels due to the project activity shall be calculated using the latest version of the "Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion"'. However, the project verification team has confirmed that there is no DG set inside the project boundary by reviewing the connection agreement & EPC Agreement and by interviewing the legal owner representative during the interview. Hence, the project emission is Zero.

Therefore, $PE_y = 0 \text{ tCO}_2\text{e}$

Leakage Emissions:

As per para 42 of the applied methodology AMS I D v18.0, the leakage emission is zero as the proposed project does not involve the use of biomass residues.

Therefore, $LE_y = 0 \text{ tCO}_2\text{e}$

Emission Reductions:

Emission Reduction: Emission Reduction of the project activity is the difference between the baseline emissions, project emissions and leakage emissions and is calculated using the following equation.

$$ER_y = BE_y - PE_y - LE_y$$

Where,

ER_y = Emission reductions in year y (t CO₂e)

BE_y = Baseline Emissions in year y (t CO₂e)

PE_y = Project emissions in year y (t CO₂e)

LE_y = Leakage emissions in year y (t CO₂e)

$ER_y = 4,413 \text{ tCO}_2\text{e} - 0 \text{ tCO}_2\text{e} - 0 \text{ tCO}_2\text{e}$

$ER_y = 4,413 \text{ tCO}_2/\text{year}$

$ER_y = 30,891 \text{ tCO}_2\text{e}$ for the first crediting period.

Year	Baseline Emissions (tCO ₂ e/yr)	Project Emissions (tCO ₂ e/yr)	Leakage Emissions (tCO ₂ e/yr)	Net Emission reductions (tCO ₂ e/yr)
19/02/2018 – 31/12/2018	3,821	0	0	3,821
2019	4,413	0	0	4,413
2020	4,413	0	0	4,413
2021	4,413	0	0	4,413
2022	4,413	0	0	4,413
2023	4,413	0	0	4,413
2024	4,413	0	0	4,413
01/01/2025 – 18/02/2025	592	0	0	592
Total	30,891	0	0	30,891

The validation team confirms the data and assumptions made by the PP to calculate the ex-ante calculations are acceptable and complies with the applied methodology. The validation team concludes that the notations and formulae used to calculate the project emissions, baseline emissions, leakage, and Emission Reductions in PD^{10/} and ER calculation sheet is in accordance with the requirements of the applied methodology AMS I.D. v18.0^{7/}.

4.5.8.2 GHG project emissions

Project Emissions:

The photovoltaic solar power generation plant does not use any fossil fuel for the generation of electricity and do not emit any GHG gas. Hence the project emission from the project activity is zero. As per para 39 of the applied methodology AMS I D v18.0, most of the renewable project activities have $PE_y = 0$. As the proposed project is a solar PV project activity, the project verification team confirms that paras 39(a) and 39(b) do not

apply to this project activity. Therefore, the project verification team confirms that emissions from this project activity is Zero.

Further, as per para 40 of the applied methodology AMS I D v18.0, 'CO₂ emissions from on-site consumption of fossil fuels due to the project activity shall be calculated using the latest version of the "Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion". However, the project verification team has confirmed that there is no DG set inside the project boundary by reviewing the connection agreement & EPC Agreement and by interviewing the legal owner representative during the interview. Hence, the project emission is Zero.

Therefore, $PE_y = 0 \text{ tCO}_2\text{e}$

4.5.8.3 GHG leakage

Leakage Emissions:

As per para 42 of the applied methodology AMS I D v18.0, the leakage emission is zero as the proposed project does not involve the use of biomass residues.

Therefore, $LE_y = 0 \text{ tCO}_2\text{e}$

4.6 Monitoring plan

4.6.1 Description of the monitoring plan

The monitoring plan is documented as per the methodology AMS-I.D v18.0^{/7/}, in a complete and transparent manner. The monitoring plan is as described in Section 16 of PD v3.0^{/10/}.

Monitoring Plan:

The monitoring plan for the Enür Solar Power Plant Bundle Project has been carefully reviewed, and the validation team finds it to be robust and comprehensive for renewable energy projects. The plan demonstrates a clear structure, detailed procedures, and effective mechanisms to ensure accurate and transparent monitoring of project activities and emission reductions.

The monitoring team is well-structured, with clearly defined roles and responsibilities. The **Energy Projects Coordinator** oversees coordination and corporate management, ensuring the smooth functioning of all solar power plant units. The **SPP Operating Engineer** is pivotal in managing day-to-day operations, collecting data, and maintaining

the archiving system. This role is critical for maintaining the integrity of the monitoring process. Additionally, the **Financial and Accounting Specialist** is responsible for recording and monitoring financial transactions related to electricity sales, while the **Technicians** handle the daily operations of the solar power plants. This team structure ensures accountability and effective implementation of the monitoring plan.

The procedures for data collection and monitoring are detailed and reliable. Electricity generated by the project is measured using main and backup meters located at the grid connection point. These meters, housed in secure and purpose-built facilities, are calibrated by ULUDAĞ EDAS, the official distribution company, to ensure accuracy. The recorded data, which reflects net electricity exported to the grid after deducting transmission losses and on-site consumption, forms the basis for invoicing and emission reduction calculations. The use of backup meters for cross-verification and remote electronic systems for data acquisition further ensures the reliability and accuracy of the monitoring process.

The integration of a SCADA monitoring system, installed alongside the panels and inverters, enhances the robustness of the monitoring plan. This system provides real-time insights into the operational performance of the plant, enabling the project holder to ensure optimal functioning of all electrical systems. In the event of discrepancies, the project holder collaborates with ULUDAĞ EDAS to cross-check and validate data, ensuring transparency and reliability in all monitoring processes.

A strong emphasis is placed on data archiving, with all monitoring data stored electronically and retained for at least two years after the end of the last crediting period or issuance. Emission reductions are calculated using the net electricity supplied to the grid, multiplied by the Combined Margin Emission Factor as specified in the project documentation. This approach ensures that all reductions are real, measurable, verifiable, and consistent with applied methodologies.

The monitoring plan also extends beyond GHG emission reductions by including provisions for tracking environmental and social impacts, as well as contributions to the Sustainable Development Goals (SDGs). The SPP Operating Engineer is responsible for this additional monitoring, reflecting the project's commitment to sustainability and alignment with broader developmental objectives.

The validation team concludes that the monitoring plan is thorough and to minimize the errors the data is cross-checked with the back-up meters. The inclusion of the SCADA system adds another layer of reliability to the monitoring process. Additionally, the retention of monitoring data for an extended period ensures transparency and facilitates the future.

In conclusion, the monitoring plan for the Enür Solar Power Plant Bundle Project is in accordance to the applied methodology^{/7/}, BCR Standard^{/1/} and BCR-VVM^{/2/}. It effectively addresses all critical aspects of monitoring, including data collection, verification, archiving, and reporting. The validation team concludes that the plan is robust and suitable for ensuring accurate monitoring and verification of emission reductions and other project impacts.

4.6.2 Data and parameters determined at registration and not monitored during the quantification period, including default values and factors.

Parameter: EF _{grid,y}	CO ₂ emission factor of the grid electricity in year y
Source of data used	"Türkiye National Network Emission Factor Data Sheet" which is latest publicly available data by Ministry of Energy and Natural Resources
Value verified	0.6345 tCO ₂ e/MWh
Purpose of data	Calculation of baseline emissions
Monitoring Procedure	As per publication of "Türkiye National Network Emission Factor Data Sheet" the emission factor is indicating National Electricity Grid emission factor for the year 2019 that includes Operating Margin (OM), Build Margin (BM) and Combined Margin (CM) Emission Factors calculated by using CDM TOOL 07 – Vo6.0. Operating Margin (OM) = 0.7279 tCO₂e/MWh Build Margin (BM) = 0.3541 tCO₂e/MWh Combined Margin (CM) = 0.6345 tCO₂e/MWh for Solar and Wind
Frequency of monitoring/recording	Fixed as ex-ante
Verification Opinion	The emission factor EF_{grid,y} is an essential parameter for determining baseline emissions in grid-connected renewable electricity generation projects. Based on the details provided, the validation team has thoroughly reviewed the data source, calculation methodology, and the suitability of the parameter for the intended application. The emission factor value of 0.6345 tCO₂e/MWh is sourced from the "Türkiye National Network Emission Factor Data Sheet," published by the Turkish Ministry of Energy and Natural Resources. This is the latest publicly available and

	credible data, dated March 18, 2024, and pertains to the year 2021. While the data is slightly dated, its application as an ex-ante parameter is consistent with international practices, which prefer fixed, official, and verified values to ensure consistency throughout the crediting period. The emission factor reflects the combined margin (CM) for solar and wind projects, integrating both Operating Margin (OM) and Build Margin (BM) values. The calculation methodology adheres to the CDM TOOL 07 – Vo6.0 framework, an internationally recognized approach. Specifically, the emission factor is derived from: Operating Margin (OM) = 0.7279 tCO₂e/MWh, representing the emissions from the most recent operational generation mix. Build Margin (BM) = 0.3541 tCO₂e/MWh, reflecting emissions from new capacity additions. Combined Margin (CM) = 0.6345 tCO₂e/MWh, which applies the appropriate weighting for solar and wind projects. This methodology aligns with the AMS-I.D Version 18.0 under the Clean Development Mechanism (CDM), ensuring robust and accurate baseline emission calculations. The fixed ex-ante application of the emission factor is also appropriate for renewable energy projects, providing stability and predictability in emission reduction estimates. The validation team acknowledges that while the emission factor is based on 2021 data, its use is justified due to the lack of more recent updates from the Ministry. The project proponent should, however, monitor future publications to incorporate updated data in subsequent projects. The data source link provided ensures transparency and traceability, which are crucial for verification processes. In conclusion, the emission factor $EF_{grid,y} = 0.6345$ tCO₂e/MWh is determined using a reliable and credible approach and is suitable for calculating baseline emissions. The parameter complies with CDM-approved methodologies and aligns with best practices, making it valid
--	---

	and appropriate for the proposed renewable electricity generation project.
--	--

4.6.3 Data and parameters monitored.

Parameter: EG_{PJ,facility}, MWh	Quantity of net electricity supplied by the project plant to the grid in year y		
Source of data used	The basic source of data is the Main and Backup Meters located in power plants		
Value verified	6,995 MWh		
Purpose of data	Calculation of baseline emissions		
Monitoring Equipment	Meters (ENÜR)		
	Details	Main Meter	Check Meter
	Calibration date	22-Aug-2017	22-Aug-2017
	Brand	Landis+Gry	Landis+Gry
	Type	Tri-vector	Tri-vector
	Serial Number	40184050	40184051
	Accuracy class	0.5S	0.5S
	Meters (REND A)		
	Details	Main Meter	Check Meter
	Calibration date	22-Aug-2017	22-Aug-2017

	Brand	Landis+Gry	Landis+Gry
	Type	Tri-vector	Tri-vector
	Serial Number	40184045	40184047
	Accuracy class	0.5S	0.5S
	Meters (ORHANELİ)		
	Details	Main Meter	Check Meter
	Calibration date	22-Aug-2017	22-Aug-2017
	Brand	Landis+Gry	Landis+Gry
	Type	Tri-vector	Tri-vector
	Serial Number	40184044	40184046
	Accuracy class	0.5S	0.5S
	Meters (TABİ KAY)		
	Details	Main Meter	Check Meter
	Calibration date	22-Aug-2017	22-Aug-2017
	Brand	Landis+Gry	Landis+Gry
	Type	Tri-vector	Tri-vector
	Serial Number	40184049	40184048

	Accuracy class	0.5S	0.5S
	Meters (TABİ KAY)		
	Details	Main Meter	Check Meter
	Calibration date	22-Aug-2017	22-Aug-2017
	Brand	Landis+Gry	Landis+Gry
	Type	Tri-vector	Tri-vector
	Serial Number	40184068	40184067
	Accuracy class	0.5S	0.5S
Frequency of monitoring/recording	It is continuous monitoring, hourly measurement and Reported Monthly		
QA/QC procedures	Calibration of the meters are valid for 10 years as determined by the relevant regulation of “Measuring and Measuring Instruments Inspection, article 9.b” published and applied by Turkish legislation. The meters are sealed to secure, and the project holder or any other unauthorized person are not allowed to access the meters. EPDK/EMRA Türkiye Cumhuriyeti Enerji Piyasası Düzenleme Kurulu / Turkish Republic Energy Market Regulatory Authority regulations will be followed for the meters to identify the accuracy class of the meters.		
Verification Opinion	The verification team has checked the serial numbers and models of installed meters at the plant by verifying the		

	meters during the onsite visit and noted that it is operational. This was also verified from the PP and plant maintenance staff during the onsite interview process. The data and parameters outlined for the electricity generation ($EG_{PJ, facility, y}$) measurement are well-documented and adhere to relevant standards and methodologies. The primary and backup meters, manufactured by Landis+Gyr, provide reliable and accurate data for net electricity generation supplied to the grid. The application of continuous monitoring with hourly measurements and monthly reporting ensures a robust data collection process. The calibration validity of 10 years, in compliance with the Turkish legislation under “Measuring and Measuring Instruments Inspection, article 9.b,” further enhances the credibility of the meters. The use of ULUDAĞ EDAS system as the official source for data recording and invoicing ensures transparency and reliability in data collection. The methodology for addressing inconsistencies through cross-checking and reporting by ULUDAĞ EDAS strengthens the quality assurance/quality control (QA/QC) framework. The adherence to EPDK/EMRA regulations for meter accuracy class identification and the secure sealing of meters to prevent unauthorized access are appropriate and align with Turkish regulations. The application of CDM Methodology AMS-I.D. (version 18.0) for grid-connected renewable electricity generation supports the calculation of baseline emissions, ensuring that emission reductions are credible and measurable. The estimated annual generation value of 6,955 MWh/yr aligns with the project’s objectives, and the rigorous monitoring frequency supports timely and accurate reporting. Overall, the validation team finds the monitoring plan, measurement procedures, and QA/QC protocols to be comprehensive, reliable, and in accordance with the applied methodology and regulatory requirements. The verification team has confirmed that the spreadsheet formula used to calculate this parameter is accurate and consistent for monitoring period.
--	--

4.7 Double counting avoidance

The validation team assessed in accordance with the BCR Avoiding double counting tool version 2.0 and it has been applied correctly in the PD¹⁰.

The validation team checked the Verra website (<https://registry.verra.org/app/search/VCS>), GS website (<https://registry.goldstandard.org/projects?q=&page=1>), and GCC website (https://projects.globalcarboncouncil.com/pages/submitted_projects) with the help of the project title, capacity of the project, project location etc., and confirms that this project is not registered or in process of registration under Verra, or GS or other projects of GCC. The validation team also determined that the project is not currently registered with any ETS (domestic and worldwide for I-REC) (<https://fotonplatform.com/santraller/>).

4.8 Compliance with Laws, Statutes and Other Regulatory Frameworks

The validation team has verified the project activity to check if it is in compliance with the relevant laws and regulations.

1. As per the requirements of the Electricity Market Law (#6446), the project has adhered to all the provisions concerning electricity generation, distribution, and trade. Necessary licenses and approvals from relevant authorities have been obtained, ensuring proper regulatory oversight. This confirms the project's commitment to operating within the framework of the electricity market's established rules and procedures.
2. In line with the Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy (#5346), the project promotes the use of renewable energy resources. The project aligns with the objectives of this law by prioritizing clean energy generation, contributing to sustainability, and taking advantage of incentives offered for renewable energy development. The documentation provided demonstrates the project's adherence to these requirements.
3. The project also complies with the Environment Law (#2872) by incorporating measures to protect the environment and ensure sustainable development. Environmental management plans are actively implemented to mitigate potential impacts, as evidenced by periodic monitoring reports. These reports confirm that the project meets the legal standards for environmental protection, showcasing a strong commitment to sustainability.
4. Under the Forest Law (#6831), the project has ensured that any activity affecting forested areas complies with the necessary legal provisions. Permissions for land use in these areas have been secured, and compensatory measures, such as

reforestation efforts, have been undertaken. These actions demonstrate the project's alignment with the requirements to minimize and offset environmental impact.

5. Furthermore, the project meets the requirements of the By-Law on Environmental Impact Assessment (EIA). Detailed EIA reports have been prepared, reviewed, and approved by the Ministry of Environment, Urbanization, and Climate Change. These reports include mitigation measures and conditions that are actively implemented to reduce environmental risks and ensure compliance with the regulation.

To ensure continuous alignment with legal requirements, the project team has established a system for monitoring updates and amendments to relevant laws and regulations. This proactive approach ensures that the project remains compliant with legislative changes, reflecting a commitment to ongoing legal and regulatory adherence.

In conclusion, the project activity has been developed in full compliance with the specified laws and regulations. Measures are in place to mitigate potential risks and ensure sustainability, demonstrating the project's commitment to environmental protection and legal conformity.

4.9 Carbon ownership and rights

The contact information for the project holder is detailed in Section 5.1 of the PD^{/10/}. This information has been reviewed and verified against the commissioning certificates^{/13/} and other official documents to ensure accuracy. The validation team confirms that the contact details of the project holder are correctly presented. The details of the project participants are also correctly presented in the PD^{/10/}.

The sole project owner is ENÜR Enerji Üretim Sanayi ve Ticaret Anonim Şirketi, as confirmed through the provisional acceptance protocols and the generation license for the project activity. The project and the carbon ownership is clearly owned by the ENÜR Enerji Üretim Sanayi ve Ticaret Anonim Şirketi which was further verified during the onsite visit.

4.10 Risk management

The project holder has conducted a comprehensive risk assessment and management process addressing environmental, financial and social dimensions during the installation and operation phase of the project. The identified risks, along with the corresponding mitigation measures, indicate a structured approach to minimizing adverse impacts and ensuring project sustainability.

Risk Category	Risk Management
---------------	-----------------

Environmental	The project identifies key environmental risks, including ecosystem protection issues, environmental externalities, and occupational health and safety concerns. To mitigate these risks, measures such as adhering to national regulations for solid waste recycling and disposal, implementing weather-related protections, and providing occupational health and safety training have been adopted. These strategies demonstrate proactive management of environmental challenges.
Financial	Financial risks include potential fluctuations in power prices and challenges related to human resource availability. The project has implemented a payment guarantee mechanism valid for ten years to manage price volatility. Additionally, the limited availability of skilled personnel in the region is addressed through targeted recruitment and training strategies.
Social	The project acknowledges potential negative perceptions of energy generation projects and aims to mitigate this risk through education and awareness campaigns. These initiatives highlight the benefits of solar photovoltaic (PV) power in climate change mitigation and adaptation, fostering positive community engagement.

The project holder utilizes the "Risk and Permanence" tool^{/3/}, as outlined on the BCR website, to evaluate and document risks. This tool enables a systematic assessment of the likelihood and impact of risks while guiding the development of effective mitigation strategies. The connection agreement with UEDAŞ (the official distribution company) further offsets financial risks by securing energy prices and ensuring payment guarantees. Environmental and social risks are managed through an ongoing monitoring plan aligned with the tool's framework.

Based on the evaluation, the project holder has effectively conducted a risk assessment and implemented robust management measures for the environmental, financial, and social dimensions of the project. The use of the "Risk and Permanence" tool ensures that risks are systematically identified, assessed, and mitigated. The presence of structured

mitigation measures, a payment guarantee mechanism, and a risk monitoring plan demonstrates the project holder's commitment to sustainability and compliance.

4.11 Sustainable development safeguards (SDSs)

The assessment on the contribution of the project activity on Sustainable Development Goals is carried out in section 8 of the PD^{/10/}. The detailed analysis of the SDGs in accordance with the BCR SDG tool are as follows:

Environment:

1. Land Use: Resource Efficiency and Pollution Prevention and Management

The project holder has adequately demonstrated that the solar power plant avoids significant land-use conflicts by utilizing areas that do not disrupt local ecosystems or existing community activities. Their assessment ensures no displacement or involuntary resettlement, and the project's footprint is minimal.

4.12 Stakeholder engagement and consultation

The stakeholder consultation for the project activity has been carried out in compliance with the BCR Standard V 3.4, even though the project was classified as "out of EIA concern" by the Turkish Ministry of Environment and Urbanization due to its installed capacity being below the required threshold for solar power plants. Given that the Environmental Impact Assessment (EIA) was not required, the project holder opted for an alternative Local Stakeholder Consultation (LSC) process. This involved disseminating project information through project information notes and feedback forms distributed via email and made available at Mukhtar's office in Belenoluk village, the nearest settlement to the project site. The consultation was carried out between 20/05/2023 and 05/06/2023, with information shared with key stakeholders, including governmental bodies, non-governmental organizations, and local residents. The local population of Belenoluk village, consisting of 62 residents in 2022, was directly involved, with five people providing feedback for each of the solar power plants in the bundled project. No comments were received from invited official institutions or NGOs.

Comprehensive Assessment of Stakeholder Consultation

Understanding Stakeholders and Their Interests

The consultation was conducted with a clear understanding of the various stakeholders that would be impacted by the project activities. Stakeholders included local authorities (Bursa Province Governor, Bursa Provincial Directorate of Environment and Urbanization, Orhaneli District Governor, Mayor of Orhaneli Municipality), local representatives

(Belenoluk Mukhtar), NGOs (e.g., WWF), and the local community. The primary focus of the consultation was on informing these groups about the environmental, social, financial, climate change mitigation, and sustainable development aspects of the project. Given the nature of the project (solar power generation), the interests of stakeholders in clean energy, job creation, and the potential for economic contribution were considered in the consultation.

Consideration of Stakeholder Interests, Risks, and Mitigation Measures

The project holder appears to have adequately considered the interests of stakeholders. The feedback received from local residents was overwhelmingly positive, highlighting the benefits of clean energy, local employment opportunities, and the economic contribution to the national economy. Furthermore, stakeholders expressed approval of the effective utilization of rural areas and the absence of harmful effects on the local environment. These concerns align with the project's objectives of minimizing environmental impact and promoting sustainable development. No negative comments or grievances were reported, suggesting that stakeholders did not perceive any immediate risks associated with the project.

However, the consultation did not include an in-depth discussion of potential risks or mitigation measures, as the feedback was largely supportive. While no negative feedback was received, the project holder shared contact information with stakeholders (consultant and site managers) to address any future grievances or concerns, which is a positive step in providing a mechanism for future engagement.

Mechanisms for Stakeholder Feedback and Involvement

The consultation process involved the distribution of project information notes and feedback forms, providing stakeholders with the opportunity to comment on the project. While this method enabled the collection of feedback.

Evaluation of Invitations to Comment and Documentation of Comments

The documentation provided by the project holder demonstrates that invitations to comment were sent to the relevant stakeholders, and the feedback forms received from the local people were documented. The stakeholder list, which included both governmental organizations and NGOs, was appropriately informed.

The comments received from the local population were positive, focusing on the benefits of the project. These comments were duly considered by the consultant and the project owner.

Handling of Complaints and Grievances

The project holder took a proactive approach by sharing contact information for the consultant and site managers with stakeholders. This allows for the resolution of any grievances or concerns that may arise in the future. However, there were no complaints or grievances raised during the consultation. The establishment of a clear grievance mechanism is essential, as it ensures stakeholders that their concerns will be addressed efficiently and transparently in the future.

The stakeholder consultation process for this project met the basic requirements set out by the BCR Standard V 3.4^{/1/}. The project holder successfully informed stakeholders and provided a mechanism for feedback. The positive feedback from the local community indicates strong support for the project. The absence of complaints or grievances does not detract from the need for an effective grievance mechanism, which the project holder has wisely included for potential future concerns.

4.13 Public consultation

According to BCR Standard v3.4 section 16.2,” the projects are open for comments for a period of 30 calendar days. The interested party shall submit the comments filling out the format on the website. The project documentation is public and can be accessed in the project section. The request shall be complete and accompanied by the sender's information (name, organization and e-mail). At the end of the public consultation period, BIOCARBON will send the comments received to the project holder. Once comments are received, the project holder shall consider all comments received during the consultation period. If applicable, it shall adjust the project design or demonstrate that the comment is not relevant.” Enür Solar Power Plant Bundle Project public consultation was open from 13/09/2023 to 13/10/2023. As a result there has not been any comment received from the local stakeholders therefore there is no resulting change to the project design.

4.14 Socioeconomic aspects

The project proponent did not carry out a detailed analysis of significant socioeconomic effects within the project boundaries as no concerns were raised by local stakeholders during the stakeholder consultation process. This was further verified and confirmed during the Validation team interviews with community representatives and other relevant stakeholders.

As such, the application of the BCR Tool for No Net Harm Environmental and Social Safeguards (NNH) is deemed not applicable for this project. The absence of negative socioeconomic impacts was clearly supported by stakeholder feedback, with no adverse issues reported or observed that would necessitate detailed analysis or mitigation measures.

Based on the stakeholder consultation and confirmation during the VVB interviews, it was concluded that the project activities do not pose any net harm to local communities or

society. Hence, the socioeconomic assessment and application of the BCR NNH tool are not required in this context.

4.15 Sustainable Development Goals (SDG)

The assessment of SDGs contributions of the project activity is carried out in Section 10 of the PD^{/10/}. The project activity contributes to 3 SDGs:

SDG 7: Affordable and Clean Energy

The project contributes to SDG 7, which aims to ensure access to affordable, reliable, sustainable, and modern energy for all. This is achieved through the generation of clean and renewable solar energy, directly aligning with Target 7.2, which aims to substantially increase the share of renewable energy in the global energy mix by 2030. By producing 6,955 MWh of solar energy annually, the project contributes significantly to reducing dependence on fossil fuels and promoting the adoption of renewable energy sources. This helps address the global energy demand while also contributing to a cleaner, more sustainable energy future.

SDG 8: Decent Work and Economic Growth

SDG 8 focuses on promoting sustained, inclusive, and sustainable economic growth, as well as full and productive employment for all. The project supports this goal by creating local job opportunities, particularly in the operation of the solar power plants. Specifically, two workers are employed on-site to manage the daily operations, contributing to the local economy. Furthermore, the project indirectly supports economic growth by utilizing local resources and increasing the regional supply of clean energy. This aligns with Target 8.5, which strives to achieve full and productive employment, ensuring equal opportunities for all, including for women and men.

SDG 13: Climate Action

SDG 13 urges urgent action to combat climate change and its impacts. The project contributes to this goal through its focus on reducing greenhouse gas emissions. By generating clean energy through solar power, the project helps to avoid the emissions that would have otherwise been produced by conventional fossil fuel-based power generation. The project reduces approximately 4,413 tons of CO₂ emissions annually, aligning with Target 13.2, which promotes the integration of climate change measures into national policies, strategies, and planning. This emission reduction supports the global fight against climate change and demonstrates the project's commitment to sustainable development through environmentally responsible practices.

4.16 REDD+ safeguards (if applicable)

Not applicable to this project.

4.17 Climate change adaptation

The validation team has conducted a thorough evaluation of the project holder's climate change adaptation measures, with specific focus on the criteria and indicators applied to demonstrate alignment with the provisions of the BCR Standard.

The project holder has clearly recognized climate change as a significant operational and environmental risk, and has integrated climate adaptation planning as part of its risk assessment framework. The adaptation strategy is structured around key thematic areas: ecosystem protection, water management, disaster risk reduction, and occupational health and safety. Each of these components is supported by corresponding adaptation strategies, measurable actions, and performance indicators, which collectively reflect a comprehensive and proactive approach.

In accordance with the BCR Standard, the project identifies potential climate risks—including extreme weather events, damage to infrastructure, resource scarcity, and impacts on workforce safety—and outlines concrete adaptation strategies to address these. For instance, infrastructure resilience is promoted through the maintenance of stormwater drainage and flood defense systems, with verification supported by monthly site inspection reports. Similarly, water management practices aim to reduce consumption and prevent pollution, with monitoring evidenced through service records and consumption data.

On the social and economic front, the project includes early warning systems and emergency response measures to strengthen disaster preparedness and reduce vulnerability among staff and local stakeholders. Internal training programs and official ISG (Occupational Health and Safety) reports serve as reliable indicators of ongoing staff capacity-building and compliance with safety standards.

The validation team finds that the indicators used are both quantifiable and practical, facilitating continuous monitoring and enabling evidence-based evaluations. The project's approach meets the core expectations of the BCR Standard, which emphasizes the need for systematic, transparent, and measurable actions that build resilience to climate change impacts.

4.18 Special categories related to co-benefits.

Not applicable to the project.

5 Internal quality control

After the completion of assessment by the validation team all the relevant documentation is submitted to a qualified, Independent Technical reviewer as part of EPIC's internal quality control system. A Technical reviewer team is appointed to review the draft Validation Report (Draft VR) and final validation report is prepared. The comments made by the technical reviewer team in the draft VR are taken into consideration and incorporated in the final VR. The technical reviewer team assesses whether all the reporting requirements have been fulfilled and whether all the issues raised were closed satisfactorily by the validation team with justification. The technical review process can also raise issues in this regard which are resolved further by the validation team to the satisfaction of the technical reviewer. The technical reviewer team either accepts or rejects the report made by the validation team. The final report (after resolutions of all findings) is then submitted to the Head of operations for review and approval.

6 Validation opinion

EPIC has performed the validation of the BCR project titled "Enür Solar Power Plant Bundle Project". This report summarizes the findings of the validation of the project, performed based on BCR standard^{/1/} for the project activity.

The purpose of this validation is to have an independent third-party assessment of the project design, applicability of the project under the methodology, baseline of the project, additionality, monitoring plan, emission reduction calculation etc., and the project's compliance with relevant BCR standard for the project activity and host country criteria. The project has correctly applied approved baseline and monitoring AMS-I.D., version 18.0^{/7/} and is assessed against latest valid versions at BCR standard^{/1/}, VVM^{/2/} and other applicable BCR/CDM Tools/Guidance/Forms.

The emission reductions (annual average) from the project activity are estimated to be 4,413 tCO₂e per year thereon displacing estimated average of 6,995 MWh amount of electricity from the generation-mix of power plants connected to the Turkish National grid.

The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Sustainable Development Safeguards v1.1^{/2/}, and therefore requests the BCR Standard to register the Project Activity, which is likely to achieve the requirements of the Environmental No-net-harm Label and the Social No-net-harm Label and is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), comply with the Project Sustainability Standard, and contribute to achieving a total of 03 SDGs.

The Project Activity complies with all the applicable requirements of the BCR Program and including BCR Standard version 3.4, Article 12 of the Kyoto Protocol, the Modalities and Procedures for CDM and the subsequent decisions and guidance by the COP/MOP and the CDM Executive Board.

The validation team has confirmed that the proposed BCR project would achieve the anticipated GHG emission reductions or net anthropogenic GHG removals stated in the PD v3.0^{/10/}.

The validated GHG emission reductions over the entire quantification period of the proposed project:

Year	Baseline Emissions (tCO ₂ e/yr)	Project Emissions (tCO ₂ e/yr)	Leakage Emissions (tCO ₂ e/yr)	Net Emission reductions (tCO ₂ e/yr)
19/02/2018 – 31/12/2018	3,821	0	0	3,821
2019	4,413	0	0	4,413
2020	4,413	0	0	4,413
2021	4,413	0	0	4,413
2022	4,413	0	0	4,413
2023	4,413	0	0	4,413
2024	4,413	0	0	4,413
01/01/2025 – 18/02/2025	592	0	0	592
Total	30,891	0	0	30,891

7 Validation statement

EPIC Sustainability Services Private Limited (EPIC) has carried out the validation of the emission reductions that have been reported for the BCR project activity “Enür Solar Power Plant Bundle Project” (BCR reference number: BCR-TR-159-1-001), with the quantification period from 19/02/2018 to 18/02/2025.

The project participants are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

The validation was done on the basis of the baseline and monitoring methodology AMS-I.D., Version 13.0^{/7/}, the PD Version: 3.0^{/10/}, dated 02/06/2025, ER sheet v2.0^{/12/}, and the

IRR sheet v3.0^{m/} The validation included checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately demonstrated and the collection of evidence supporting the data.

The estimated emission reductions are calculated correctly and EPIC could certify that the estimated emission reductions from the BCR project activity “Enür Solar Power Plant Bundle Project” in Turkey is 4,413 tonnes of CO₂ equivalent.

8 Facts discovered after validation

No facts discovered after validation.

Annex 1. Competence of team members and technical reviewers

Name	Role	Competence in the Sector	Responsibility
Mr. R. Vijayaraghavan	Lead Auditor & Technical Expert	1, 3 & 13	Completeness check, desk review, interviews with project representatives and stakeholders, issuance of findings, report preparation
Mr. Unnikannan R V	Auditor	1	Completeness check, desk review, onsite visit, interviews with project representatives and stakeholders, issuance of findings, report preparation
Mr. Karthik Lakshman	Auditor	1	Completeness check, desk review, interviews with project representatives and stakeholders, issuance of findings, report preparation
Mr. Omur Can SARI	Host Country Expert	-	Document Review, Cross check with host country laws and regulation and stakeholder interactions.
Ms. Priyanka M S	Technical Reviewer	1, 3	Technical Review of the project.

A brief summary of the personnel involved in the verification is indicated below

Mr. R Vijayaraghavan, Mr. R. Vijayaraghavan holds a BE in Mechanical Engineering, M. Tech in Energy Conservation and Management and MBA in Technology Management. He is certified as Energy Auditor by Bureau of Energy Efficiency (BEE), Government of India. He has 15 years of working experience in the energy sector including 11 years as a validator. He has successfully completed around a hundred CDM, VCS/GS projects. He is qualified as Lead Auditor for Sectoral Scope 1, 3 and 13

Ms. Unnikannan R V holds a Bachelor of Technology degree in Chemical engineering. He is evaluated to be an auditor in accordance with the accreditation procedures of EPIC.

Mr. Karthik Lakshman holds a Bachelor of Technology degree in Mechanical Engineering. He has been evaluated as an auditor in accordance with the accreditation procedures of EPIC.

Ms. Priyanka M S holds a Bachelor of Engineering in Environmental Engineering. She is an approved GHG Lead Auditor, Technical expert, financial expert and Technical Reviewer for EPIC as per the applicable scheme rules and stipulations

Mr. Omur Can SARI holds a Mechanical engineering degree specialized in Energy and Automotive Systems) and also has a Master studies in data mining and data science . He got more than 10 years business in energy field in Norway, UK, Italy, France and Turkey. He is qualified as host country expert for Turkey as per EPIC' accreditation procedures.

Annex 2. Clarification requests, corrective action requests and forward action requests

Finding ID	01	Type of finding	Clarification Request (CL)	Date 12/06/2024
<i>Description of finding</i>				
During the site visit, it was noted that the serial number of the main meter present in site of 'SERHAT ÖZTİMUR SPP' is 40184068. This is in conformance with the information provided in the submitted PD. However, the commissioning certificate of the above mentioned SPP mentions the serial number of the main meter as 40184064. Please clarify the difference in information found in the serial numbers of main meter in the actual implemented scenario and that present in the commissioning certificate. Also, clarify if there was any meter change occurred after initial installation of the main electricity meter in 'SERHAT ÖZTİMUR SPP' facility.				
<i>Project holder response (27/08/2024)</i>				
The difference in information found in the serial numbers of main meter in the actual implemented scenario and that present in the commissioning certificate of in 'SERHAT ÖZTİMUR SPP' facility is typo error. Project owner asked to UEDAŞ authorities for correction of the serial number of the main meter present in site of 'SERHAT ÖZTİMUR SPP' as 40184068 has made and corrected copy is presented as attached.				
<i>Documentation provided by the project holder</i>				
Corrected copy of commissioning protocol of 'SERHAT ÖZTİMUR SPP' facility.				
<i>CAB assessment (21/12/2024)</i>				
The validation team reviewed the commissioning protocol of 'SERHAT ÖZTİMUR SPP' facility and confirms that the UEDAŞ authorities have acknowledged this difference and corrected the meter serial number to 40184068.				

Hence, CL 01 is closed.

Finding ID	02	Type of finding	Clarification Request (CL)	Date 12/06/2024
Description of finding				
1. The actual installed capacity of ‘SERHAT ÖZTİMUR SPP’ as per the submitted PD and the information provided by PH representative is 250 kW. However, as per the commissioning certificate, the installed capacity of ‘SERHAT ÖZTİMUR SPP’ is 275 kW. 2. The commissioning certificate of ‘SERHAT ÖZTİMUR SPP’ indicates that the solar modules installed in this power plant is of SOLITEK make, while the actual installed solar modules are of UPSOLAR make. Please clarify the above issues.				
Project holder response (27/08/2024)				
The difference in information found in the actual installed capacity and PV modules make in the implemented scenario and that present in the commissioning certificate of in ‘SERHAT ÖZTİMUR SPP’ facility is typo error. Project Owner asked to UEDAŞ authorities for correction of the actual installed capacity present in site of ‘SERHAT ÖZTİMUR SPP’ as 250kWe and solar module names as UPSOLAR make have been made and corrected copy is presented as attached.				
Documentation provided by the project holder				
Corrected copy of commissioning protocol of ‘SERHAT ÖZTİMUR SPP’ facility.				
CAB assessment (21/12/2024)				
The validation team reviewed the corrected commissioning protocol submitted by the project holder. The updated document aligns with the actual site conditions and resolves inconsistencies highlighted in the original commissioning certificate.				

Hence, CLo2 is closed.

Finding ID	03	Type of finding	Clarification Request (CL)	Date 12/06/2024
Description of finding				
1. The commissioning certificate of 'SERHAT ÖZTİMUR SPP' stated that the transformer operates at a voltage range of 34.5 kV, while the name plate of the transformer indicated that it is designed to operate for 33 kV. 2. The commissioning certificates of the other 4 SPPs showed an operating voltage of 31.5 kV. 3. During the interviews conducted at site, the validation team was told by the PH that all the transformers present in the project activity operated at the voltage range of 34.5 kV. Please compare and clarify the actual operating voltage of the transformers and that present in the commissioning certificates.				
Project holder response (27/08/2024)				
Eltaş and Astor make transformers those are serving for project SPPs can operate at a voltage between 28,500kV. to 36,000 kV. There are switches on top of transformers dedicated to arrange the operating voltage of units. A short video has been provided during the site visit that demonstrates how it works. Technicians of UEDAŞ (distribution company) order to power plant director to change operating voltage of transformers in a particular value within the working limits due to the need for balancing network power transfer from time to time. Hence, the values of voltage ranges on commissioning protocols represent the value at the moment commissioning delegation visited site facilitates not the fixed operating voltage values. The actual operating voltage of transformers may vary between 31.5kV. and 34.5 kV. in regular use.				
Documentation provided by the project holder				
A shot video demonstrates how transformer and its switch operated by site staff.				

CAB assessment (21/12/2024)

The validation team reviewed the provided documentation, including the video demonstration. The clarification regarding the variable operating voltage of transformers is acceptable, as it aligns with the operational flexibility required by UEDAS for network power balancing. The voltage values recorded in the commissioning certificates represent specific readings during the commissioning process and do not reflect fixed operational conditions.

Hence, CLo3 is closed.

Finding ID	04	Type of finding	Corrective action Request (CAR)	Date 12/06/2024
<i>Description of finding</i>				
The PH has currently used version 3.0 of the BCR standard and v2.2 of the BCR PD template. As per Section 2 of the BCR standard v3.3, the PH must use the latest versions of the BCR standard (v3.3), BCR PD template (v2.3) and other related tools and guidelines.				
<i>Project holder response (27/08/2024)</i>				
Project PD has been edited according to BCR Standard v3.4 and used BCR PD template V.2.3 which are the latest available documents of BCR as of July 2024.				
<i>Documentation provided by the project holder</i>				
Revised and updated Project PD				
<i>CAB assessment (21/12/2024)</i>				
The validation team reviewed the revised Project Design Document (PD) and confirmed that it complies with the latest versions of the BCR Standard (v3.4) and BCR PD				

template (v2.3). The PH has adequately addressed the issue by updating the documentation as per the latest available standards and guidelines.

Hence, CAR01 is closed.

Finding ID	05	Type of finding	Corrective action Request (CAR)	Date 12/06/2024
Description of finding				
PH has not implemented a process of Social and Environmental due diligence as outlined in Sustainable Development Safeguards (SDSs) tool version 1.0. By doing so, PH shall complete and submit the Sustainable Development Safeguards assessment questionnaire as applicable for this project activity. (Ref: Annex A of the SDS tool v1.0).				
Project holder response (27/08/2024)				
Sustainable Development Safeguards (SDSs) tool version 1.1 has been utilized to process of Social and Environmental due diligence as of July 2024. Annex A of SDS tool v1.1 has been processed and added to Section 8 Sustainable Development Safeguards of BCR PD v2.3.				
Documentation provided by the project holder				
Revised and updated Project PD				
CAB assessment (21/12/2024)				
The validation team reviewed the updated Project Design Document (PD) and confirmed that the Social and Environmental due diligence process was performed in accordance with the SDSs tool v1.1. Annex A of the SDS tool was completed and appropriately integrated into the project documentation. The PH has demonstrated compliance with the Sustainable Development Safeguards requirements.				

Hence, CARo2 is closed.

Finding ID	06	Type of finding	Corrective action Request (CAR)	Date 12/06/2024
Description of finding				
The visit to four of the project sites (given below) and the review of their corresponding commissioning certificates indicates that the actual installed capacities of these power plants 999 kW. But under Table 1 (Section 2) in the submitted Project Description (PD), it is wrongly mentioned as 1000 kW for the following SPPs: • ENÜR SPP • RENDA SPP • ORHANELİ SPP • TABİİ KAYNAKLAR SPP PH to check and address this issue throughout the PD.				
Project holder response (27/08/2024)				
Installed capacities of Enür, Renda, Orhaneli, Tabii Kaynaklar power plants have been edited as 999 kWe under Table 1 (Section 2) and other relevant sections in the updated submitted Project Description (PD) v2.3,				
Documentation provided by the project holder				
Revised and updated Project PD				
CAB assessment (21/12/2024)				
The validation team reviewed the updated Project Description (PD) and verified that the installed capacities of the mentioned power plants were corrected to 999 kW in Table 1 (Section 2) and other relevant sections. The revised PD is consistent with the information observed during the site visits and documented in the commissioning certificates.				

Hence, CARo3 is closed.

Finding ID	07	Type of finding	Corrective action Request (CAR)	Date 12/06/2024
Description of finding				
- In the title page, the 'Project Type' is indicated as 'GHG project' which is not in line with types of BCR projects as prescribed by the BCR standard. (Ref: Section 10.1 of the BCR standard version 3.3.) - In the project title page, under 'Special category, related to co-benefits' the SDG sub-indicators are mentioned. (Ref: Section 18 of the BCR standard version 3.3.) - Under the title page and Section 14, the submitted PD tends to convey that the proposed project activity is a grouped project. But, during the interview with PH representatives, it is confirmed that this is not a grouped project activity. (Ref: Section 19 of the BCR standard version 3.3.) PH to address these discrepancies and update the PD with appropriate information.				
Project holder response (27/08/2024)				
- In the title page, the 'Project Type' is edited as "Non-Conventional and Renewable Energy Sources (NCRES)" in line with types of BCR projects as prescribed by the BCR standard v3.4 - The mentioned SDG sub-indicators are removed from the 'Special category, related to co-benefits' section in the title page of updated submitted PD since the section is related to AFOLU projects. - Under the title page and Section 14, the updated submitted PD, the proposed project activity is edited to state "Not a grouped project"				
Documentation provided by the project holder				

Revised and updated Project PD
<i>CAB assessment (21/12/2024)</i>
The validation team reviewed the updated Project Description (PD) and confirmed that the discrepancies identified in the original PD have been addressed as follows: 1. The project type has been correctly stated as "Non-Conventional and Renewable Energy Sources (NCRES).: 2. The SDG sub-indicators have been removed from the 'Special category, related to co-benefits' section. 3. The project activity is now correctly described as "Not a grouped project" in the title page and Section 14. Hence, CARo4 is closed.

Finding ID	o8	Type of finding	Corrective action Request (CAR)	Date 12/06/2024
<i>Description of finding</i>				
Section 1.1 of the PD does not identify the applicable scopes of the project activity. (Ref: Section 5 of BCR standard version 3.3.)				
<i>Project holder response (27/08/2024)</i>				
The relevant options for the scope of the BCR Standard have been marked to identify the applicable scopes of the project activity in line with BCR Standard v3.4				
<i>Documentation provided by the project holder</i>				
Revised and updated Project PD				

<i>CAB assessment (21/12/2024)</i>
The project holder revised the PD with the applicable scopes of the project activity with accordance with the BCR standard v3.3. Hence, CARo5 is closed.

Finding ID	09	Type of finding	Corrective action Request (CAR)	Date
				12/06/2024
<i>Description of finding</i>				
Table 3 under Section 2.1 of the submitted PD does not reflect the actual implemented information with respect to the number of units of panels and inverters of ‘SERHAT ÖZTİMUR SPP’.				
<i>Project holder response (27/08/2024)</i>				
The number of units of inverters of ‘SERHAT ÖZTİMUR SPP’ in Table 3 under Section 2.1 of the updated submitted PD has been edited as 5 units which is the actual implemented unit number.				
<i>Documentation provided by the project holder</i>				
Revised and updated Project PD				
<i>CAB assessment (21/12/2024)</i>				
The validation team reviewed the updated Project Description (PD) and confirmed that Section 1.1 now clearly identifies the applicable scopes of the project activity. The update is consistent with the requirements outlined in the BCR Standard v3.4. Hence, CARo6 is closed.				

Finding ID	10	Type of finding	Corrective action Request (CAR)	Date 12/06/2024
Description of finding				
PH has used the Turkish emission factor (EF) data of 2019, which was available during the year 2021 for calculating the baseline emissions for this project activity. The PH must use the latest data for emission factor (EF) available at the time of listing of this project activity, published by the Turkish Ministry of Energy and Natural Resources. Also, PH to submit the corresponding <i>Türkiye National Network Emission Factor Data Sheet</i> to the CAB.				
Project holder response (27/08/2024)				
Updated submitted PD has been edited by using Turkish emission factor (EF) data of 2021, which was available during the year 2024 for calculating the baseline emissions for this project activity the latest data for emission factor (EF) available at the time of listing of this project activity, published by the Turkish Ministry of Energy and Natural Resources. A copy of the corresponding <i>Türkiye National Network Emission Factor Data Sheet</i> provided to the CAB.				
Documentation provided by the project holder				
A pdf copy of “<i>Türkiye National Network Emission Factor Data Sheet</i>” document Revised and updated Project PD				
CAB assessment (21/12/2024)				
The validation team reviewed the revised Project Description (PD) and confirmed that the baseline emissions were recalculated using the Turkish emission factor (EF) data of 2021, which aligns with the requirement to use the latest available data at the time of listing. The <i>Türkiye National Network Emission Factor Data Sheet</i> provided by the PH corroborates the revised calculations. Hence, CARo7 is closed.				

Finding ID	11	Type of finding	Corrective action Request (CAR)	Date
				12/06/2024
Description of finding				
Under Section 8 of the submitted PD: - The justification of the Element 'Land' does not identify the wastes generated from the project activity like the damaged solar panels, inverters, UPS and other wastes. There is also no discussion regarding the storage and disposal methods adopted by the PH so that a proper disposal is ensured and the Element in discussion is not affected negatively by the project activity. - The justification of the Element 'Water' tends to say that the project activity does not generate any type of wastewater. But during the interview, the PH representatives declared that there is indeed water used for domestic purposes, which after usage is stored in a septic tank and is periodically collected for disposal by the local municipality. This identification of water usage and the generation of wastewater is not present under this Element.				
Project holder response (27/08/2024)				
Section 8 of the updated submitted PD has been reviewed and updated according to SDS Tool V1.1 and Annex table of tool has been utilized to assess environmental impacts besides other impacts. In relevant assessment questions of annex table regarding "Land use" and "water", waste management principles concerning both the damaged solar panels, inverters, UPS and water used for domestic purposes have been stated.				
Documentation provided by the project holder				
Copy of invoice of Bursa Metropolitan Municipality for collecting and discharge of domestic use water. Revised and updated Project PD				
CAB assessment (21/12/2024)				
The validation team reviewed the revised PD and confirmed the following:				

1. Waste management principles, including proper disposal methods for damaged solar panels, inverters, UPS, and other wastes, are clearly documented under the Element 'Land.'

2. The updated PD accurately describes the water usage for domestic purposes and the wastewater management process under the Element 'Water.' This includes the storage of wastewater in a septic tank and its collection by the local municipality.

The PH has demonstrated compliance with the requirements by incorporating these changes into the updated PD and providing supporting documentation.

The corrective action request is satisfactorily addressed. The validation team confirms that Section 8 of the PD has been appropriately updated to include the necessary justifications and information, ensuring compliance with SDS Tool v1.1 requirements.

Hence, CARo8 is closed.

Finding ID	12 -	Type of finding	Corrective action Request (CAR)	Date 12/06/2024
Description of finding				
PH has not submitted the following documents to the CAB for review: 1. Feasibility Report of this project activity 2. Proof of Investment decision date of this project activity 3. Company Registration Certificates of the individual SPP owners (Tax Registry certificates for the same has already been submitted) 4. Proof of wastewater management at site 5. Evidence that the project activity contributes towards SDG 9 6. Objective evidence to establish the sources of all the values, used for the calculation of IRR.				
Project holder response (27/08/2024)				
The following documents are submitted to CAB with updated submitted PD for review				

Documentation provided by the project holder

1. Scanned PDF copy of Feasibility Report of this project activity dated May 2016
2. Scanned PDF copies of Board resolutions for Proof of Investment decision date of this project activity
3. Scanned PDF copies of Company Registration Certificates of the individual SPP owners.
4. Scanned PDF copy of invoice for Proof of wastewater management at site
5. SDG 9 claim has been removed.
6. The following documents used for the calculation of IRR are provided as objective evidence to establish the sources of all the values.
 - a) Feasibility report of project dated May 2016
 - b) Commissioning protocols
 - c) Board resolutions
 - d) Excel worksheet of Market Clearing price by EPIAŞ/EXIST
 - e) Turkish National Network Emission Factor Data Sheet
 - f) PDF copy of World Economic Outlook 2018-2022 by IMF
 - g) Excel worksheet of Lending and deposit interest rates of Turkey by Presidency of Strategy and Budget.
 - h) PDF table of depreciation rates by Union of Chambers of Certified Public Accountants of Türkiye.
 - i) PDF copy of Taxation system by Revenue Administration
 - j) PDF copy of “Law on the Use of Renewable Energy Resources for the Generation of Electrical Energy No. 5346”
 - k) PDF copies of land deeds

CAB assessment (21/12/2024)

The validation team reviewed the submitted documents and confirmed the following:

1. The feasibility report provides adequate details about the project activity.
2. Board resolutions verify the investment decision date.
3. Company Registration Certificates of individual SPP owners are provided and valid.
4. Proof of wastewater management is supported by the invoice from the local municipality.
5. The SDG 9 claim has been removed as requested.
6. Comprehensive evidence, including financial and technical documents, has been provided to support the IRR calculation, ensuring traceability and accuracy

Hence, CARo9 is closed

Annex 3. Documentation review

Document Title / Version	Author	References to the document	Version Number/Date	Document provider (if applicable)
BCR Standard	BCR	1	V3.4	BCR
1. BCR Validation and Verification Manual 2. BCR Monitoring, Reporting and Verification (MRV) v1.0 3. BCR Tools: Sustainable Development Goals (SDGs) v1.0, 4. Sustainable Development Safeguards (SDSs) v1.0, 5. BCR Baseline and Additionality v1.3 6. Standard Operating Procedures (SOP) v1.3	BCR	2	-	BCR
<i>BCR's Permanence and Risk Management Tool</i>	BCR	3	V1.1	BCR

<i>BCR's Avoiding Double Counting (ADC) Tool</i>	BCR	4	V2.0	BCR
<i>Emission Factor of Turkish National Grid-March 2024</i>	<i>Ministry of Energy and Natural Resources</i>	5		PP
<i>ISO Standards</i>	ISO	6	ISO 14064-2 & ISO 14064-3	–
<i>AMS-I.D.</i>	<i>CDM</i>	7	V18.0	Publicly available
<i>Tool 01</i> <i>Tool 07</i> <i>Tool 21</i> <i>Tool 27</i>	<i>CDM</i>	8	V07.0.0 V07.0 V13.1 V14.0	Publicly available
<i>Project Document (PD)</i>	<i>PP</i>	9	V1.0	PP
<i>Project Document (PD)</i>	<i>PP</i>	10	V3.0	PP
<i>IRR sheet</i>	<i>PP</i>	11	V1.0 V3.0	PP
<i>ER sheet</i>	<i>PP</i>	12	V1.0 V2.0	PP
<i>Commissioning Certificate</i>	<i>TEDAS</i>	13	1. ENUR A.S. dated 19/02/2018	PP

			2. ORHANELI A.S. dated 19/02/2018 3. RENDA A.S. dated 19/02/2018 4. SERHAT OZTIMUR dated 19/02/2018 5. TABII KAYNAKLAR A.S. dated 19/02/2018	
<i>EIA Exemption letter</i>		14	1. ENUR A.S. dated 31/08/2015 2. ORHANELI A.S. dated 17/08/2016 3. RENDA A.S. dated 31/08/2015 4. SERHAT OZTIMUR dated 08/08/2016 5. TABII KAYNAKLAR A.S. dated 15/05/2017	PP
<i>Connection Agreement</i>	UEDAS	15	1. ENUR A.S. dated 20/02/2017 2. ORHANELI A.S. dated 20/02/2017 3. RENDA A.S. dated 20/02/2017 4. SERHAT OZTIMUR	PP

			dated 23/02/2017 5. TABII KAYNAKLAR A.S. dated 23/02/2017	
<i>Company Registration Certificates</i>	<i>Bursa Ticaret ve Sanayi Odası</i>	16	1. ENUR A.S. dated 26/06/2015 2. ORHANELI A.S. dated 23/07/2015 3. RENDA A.S. dated 19/11/2014 4. SERHAT OZTIMUR dated 01/11/2017 TABII KAYNAKLAR A.S. dated 03/09/2015	PP
<i>Installation contact</i>	<i>Konelsis Enerji A.Ş.</i>	17	Dated 20/06/2017	PP
<i>Generation invoices</i>	<i>UEDAS</i>	18	Year 2024	PP
<i>CAPEX and OPEX invoices</i>	<i>PP</i>	19	Year 2024	PP
<i>KML file</i>	<i>PP</i>	20	-	PP
<i>Land Ownership document</i>	<i>PP</i>	21	-	PP

<i>Technical specifications of the solar PVs</i>	<i>Manufacturer</i>	22	-	PP
<i>Feasibility Report</i>	<i>Öztañ Elektrik Sanayi ve Ticaret A.Ş.</i>	23	Dated May 2016	PP

Annex 4. Abbreviations

Use the table below to list all the abbreviations used in this report.

<i>Abbreviations</i>	<i>Full texts</i>
BCR	BioCarbon Registry
CAB	Conformity Assessment Body
CDM	Clean Development Request
CL	Clarification Request
CAR	Corrective Action Request
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GCC	Global Carbon Council
GHG	Greenhouse Gas
GS	Gold Standard
IRR	Internal Rate of Return
KML	Keyhole Markup Language
PD	Project Design Document
PP	Project Proponent
QA/QC	Quality Assurance/ Quality Control
SDG	Sustainable Development Goals

UEDAŞ	Uludağ Elektrik Dağıtım A.Ş
UNFCCC	United Nations Framework Convention on Climate Change
VCC	Verified Carbon Credit
VCS	Verified Carbon Standard
VVB	Validation/Verification Body
VR	Validation Report

© 2024 BIOCARBON CERT®. All rights reserved. This format can only be used for assessing projects for certification and registration with BIOCARBON. Reproduction in whole or in part is prohibited.