

المجلس العالمي للبصمة الكربونية  
GLOBAL CARBON COUNCIL



# Project Verification Report

V3.1 - 2020

## CONTENTS

COVER PAGE	4
1. PROJECT VERIFICATION REPORT	8
<b>SECTION A. EXECUTIVE SUMMARY</b>	<b>8</b>
<b>SECTION B. PROJECT VERIFICATION TEAM, TECHNICAL REVIEWER AND APPROVER</b>	<b>11</b>
<b>B.1. PROJECT VERIFICATION TEAM</b>	<b>11</b>
<b>B.2. TECHNICAL REVIEWER AND APPROVER OF THE PROJECT VERIFICATION REPORT</b>	<b>11</b>
<b>SECTION C. MEANS OF PROJECT VERIFICATION</b>	<b>11</b>
<b>C.1. DESK/DOCUMENT REVIEW</b>	<b>11</b>
<b>C.2. ON-SITE INSPECTION</b>	<b>11</b>
<b>C.3. INTERVIEWS</b>	<b>12</b>
<b>C.4. SAMPLING APPROACH</b>	<b>13</b>
<b>C.5. CLARIFICATION REQUEST (CLS), CORRECTIVE ACTION REQUEST (CARS) AND FORWARD ACTION REQUEST (FARS) RAISED</b>	<b>13</b>
<b>SECTION D. PROJECT VERIFICATION FINDINGS</b>	<b>14</b>
<b>D.1. IDENTIFICATION AND ELIGIBILITY OF PROJECT TYPE</b>	<b>14</b>
<b>D.2. GENERAL DESCRIPTION OF PROJECT ACTIVITY</b>	<b>15</b>
<b>D.3. APPLICATION AND SELECTION OF METHODOLOGIES AND STANDARDIZED BASELINES</b>	<b>19</b>
D.3.1 APPLICATION OF METHODOLOGY AND STANDARDIZED BASELINES	19
D.3.2 CLARIFICATION ON APPLICABILITY OF METHODOLOGY, TOOL AND/OR STANDARDIZED BASELINE	27
D.3.3 PROJECT BOUNDARY, SOURCES AND GHGS	27
D.3.4 BASELINE SCENARIO	28
D.3.5 DEMONSTRATION OF ADDITIONALITY	29
D.3.6 ESTIMATION OF EMISSION REDUCTIONS OR NET ANTHROPOGENIC REMOVAL	39
D.3.7 MONITORING PLAN	42
<b>D.4. START DATE, CREDITING PERIOD AND DURATION</b>	<b>45</b>

<b><u>D.5.</u></b>	<b><u>ENVIRONMENTAL IMPACTS</u></b>	<b><u>46</u></b>
<b><u>D.6.</u></b>	<b><u>LOCAL STAKEHOLDER CONSULTATION</u></b>	<b><u>47</u></b>
<b><u>D.7.</u></b>	<b><u>APPROVAL AND AUTHORIZATION- HOST COUNTRY CLEARANCE</u></b>	<b><u>47</u></b>
<b><u>D.8.</u></b>	<b><u>PROJECT OWNER- IDENTIFICATION AND COMMUNICATION</u></b>	<b><u>47</u></b>
<b><u>D.9.</u></b>	<b><u>GLOBAL STAKEHOLDER CONSULTATION</u></b>	<b><u>48</u></b>
<b><u>D.10.</u></b>	<b><u>ENVIRONMENTAL SAFEGUARDS (E+)</u></b>	<b><u>48</u></b>
<b><u>D.11.</u></b>	<b><u>SOCIAL SAFEGUARDS (S+)</u></b>	<b><u>49</u></b>
<b><u>D.12.</u></b>	<b><u>SUSTAINABLE DEVELOPMENT GOALS (SDG+)</u></b>	<b><u>50</u></b>
<b><u>D.13.</u></b>	<b><u>AUTHORIZATION ON DOUBLE COUNTING FROM HOST COUNTRY (FOR CORSIA)</u></b>	<b><u>50</u></b>
<b><u>D.14.</u></b>	<b><u>CORSIA ELIGIBILITY (C+)</u></b>	<b><u>51</u></b>
<b><u>SECTION E.</u></b>	<b><u>INTERNAL QUALITY CONTROL</u></b>	<b><u>51</u></b>
<b><u>SECTION F.</u></b>	<b><u>PROJECT VERIFICATION OPINION</u></b>	<b><u>52</u></b>
Appendix 1.	Abbreviations	54
Appendix 2.	Competence of team members and technical reviewers	55
Appendix 3.	Document reviewed or referenced	58
Appendix 4.	Clarification request, corrective action request and forward action request	63
Appendix 5.	>> Matrix for Identifying Environmental Impacts, Establishing Safeguards and Performing Do-No-Harm Risk Assessments in the PSF and GCC Verifier’s conclusion	69
Appendix 6.	Matrix for Identifying Environmental Impacts, Establishing Safeguards and Performing Do-No-Harm Risk Assessments in the PSF and GCC Verifier’s conclusion	77
Appendix 7.	Matrix for Demonstration of Contribution of Project to Sustainable Development	84
Appendix 8.	Project Implementation and Monitoring Photographs	88



<b>COVER PAGE</b>	
<b>Project Verification Report Form (PVR)</b>	
<b>BASIC INFORMATION</b>	
<b>Name of approved GCC Project Verifier / Reference No.</b> (also provide weblink of approved GCC Certificate)	4K Earth Science Private Limited Certificate No: GCCV005/00 <a href="https://www.globalcarboncouncil.com/wp-content/uploads/2021/12/GCCV005-00_4KES_GCC-Verifier-Certificate_13122021.pdf">https://www.globalcarboncouncil.com/wp-content/uploads/2021/12/GCCV005-00_4KES_GCC-Verifier-Certificate_13122021.pdf</a>
<b>Type of Accreditation</b>	<input type="checkbox"/> Individual Track <sup>1</sup> <input checked="" type="checkbox"/> CDM Accreditation  (Active accreditation from United Nations Framework Convention on Climate Change valid till 14.06.2024 Ref. Number CDM-E-0069 <a href="https://cdm.unfccc.int/DOE/list/DOE.html?entityCode=E-0069">https://cdm.unfccc.int/DOE/list/DOE.html?entityCode=E-0069</a> ) <input type="checkbox"/> ISO 14065 Accreditation
<b>Approved GCC Scopes and GHG Sectoral scopes for Project Verification</b>	GHG Sectoral Scope: Scope 1 - Energy (renewable/non-renewable sources)  GCC Scopes: Environmental No-harm (E+) Social No-harm (S+) Sustainable Development Goals (SDG+)
<b>Validity of GCC approval of Verifier</b>	13/12/2021 to 12/12/2023.
<b>Title, completion date, and Version number of the PSF to which this report applies</b>	<b>Astronergy Solar Turkey 3</b> Version: 08 dated 28/11/2023
<b>Title of the project activity</b>	<b>Astronergy Solar Turkey 3</b>
<b>Project submission reference no.</b> (as provided by GCC Program during GSC)	S00652
<b>Eligible GCC Project Type<sup>2</sup> as per the Project Standard</b> (Tick applicable project type)	<input checked="" type="checkbox"/> <b>Type A:</b> <input type="checkbox"/> Type A1 <input checked="" type="checkbox"/> Type A2 (Sub-Type 1)  <input type="checkbox"/> <b>Type B – De-registered CDM Projects:</b>

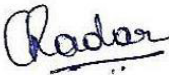
<sup>1</sup> **Note:** GCC Verifier under Individual track is not eligible to conduct verifications for the GCC project that intends to supply carbon credits (ACCs) for CORSIA requirements.

<sup>2</sup> Project Types defined in Project Standard and Program Definitions on GCC website.

	<input type="checkbox"/> Type B1 <input type="checkbox"/> Type <sup>3</sup> B2												
<b>Date of completion of Local stakeholder consultation</b>	13/05/2022 – 18/05/2022 in Erzincan and Osmaniye Provinces												
<b>Date of completion and period of Global stakeholder consultation. Have the GSC comments been verified. Provide web-link.</b>	<p>13/12/2022 GSC was conducted between 29/11/2022-13/12/2022</p> <p><a href="https://www.globalcarboncouncil.com/global-stakeholders-consultation-6/">https://www.globalcarboncouncil.com/global-stakeholders-consultation-6/</a></p> <p>No comments were received during the GSC period.</p>												
<b>Name of Entity requesting verification service</b>  (can be Project Owners themselves or any Entity having authorization of Project Owners)	Astronergy Solar Turkey Enerji A.Ş.												
<b>Contact details of the representative of the Entity, requesting verification service</b>  (Focal Point assigned for all communications)	<p>Emrah Yaka</p> <p>Astronergy Solar Turkey Enerji A.Ş.</p> <p>FSM Mah. Poligon Cad. Buyaka Kule – 1 No: 8A Kat: 17 Ümraniye İstanbul</p> <p>Telephone: +90 216 621 00 55</p> <p>E-mail: <a href="mailto:emrah.yaka@astronergy.com.tr">emrah.yaka@astronergy.com.tr</a></p>												
<b>Country where project is located</b>	Türkiye												
GPS coordinates of the Project site(s)	<table border="1"> <thead> <tr> <th colspan="2">Physical address</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>Yaveriye 9 Yaveriye 10 Yaveriye 11 Yaveriye 12 Yaveriye 13</td> <td>Osmaniye Province / Merkez District / Sakızgediği Neighborhood</td> <td>37.0950 N 37° 05' 42"</td> <td>36.1683 E 36° 10' 6"</td> </tr> <tr> <td>Çevretepe 2 Çevretepe 1 Çevretepe 3</td> <td>Adana Province / Ceyhan District / Çevretepe Neighborhood</td> <td>36.8922 N 36° 53' 32"</td> <td>35.7981 E 35° 47' 53"</td> </tr> </tbody> </table>	Physical address		Latitude	Longitude	Yaveriye 9 Yaveriye 10 Yaveriye 11 Yaveriye 12 Yaveriye 13	Osmaniye Province / Merkez District / Sakızgediği Neighborhood	37.0950 N 37° 05' 42"	36.1683 E 36° 10' 6"	Çevretepe 2 Çevretepe 1 Çevretepe 3	Adana Province / Ceyhan District / Çevretepe Neighborhood	36.8922 N 36° 53' 32"	35.7981 E 35° 47' 53"
Physical address		Latitude	Longitude										
Yaveriye 9 Yaveriye 10 Yaveriye 11 Yaveriye 12 Yaveriye 13	Osmaniye Province / Merkez District / Sakızgediği Neighborhood	37.0950 N 37° 05' 42"	36.1683 E 36° 10' 6"										
Çevretepe 2 Çevretepe 1 Çevretepe 3	Adana Province / Ceyhan District / Çevretepe Neighborhood	36.8922 N 36° 53' 32"	35.7981 E 35° 47' 53"										
<b>Applied methodologies</b>  (approved methodologies of GCC or CDM can be used)	AMS-I.D.: Grid connected renewable electricity generation, version 18.0												
<b>GHG Sectoral scopes linked to the applied methodologies</b>	GHG-SS: Scope 1 Energy (renewable/non-renewable sources)												

<sup>3</sup> GCC Project Verifier shall conduct Project Verification for all project types except B<sub>2</sub>.

<p><b>Project Verification Criteria:</b> Mandatory requirements to be assessed</p>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> ISO 14064-2.</li> <li><input checked="" type="checkbox"/> GCC Rules and Requirements</li> <li><input checked="" type="checkbox"/> Applicable Approved Methodology</li> <li><input checked="" type="checkbox"/> Applicable Legal requirements /rules of host country</li> <li><input checked="" type="checkbox"/> National Sustainable Development Criteria (if any)</li> <li><input checked="" type="checkbox"/> Eligibility of the Project Type</li> <li><input checked="" type="checkbox"/> Start date of the Project activity</li> <li><input checked="" type="checkbox"/> Meet applicability conditions in the applied methodology</li> <li><input checked="" type="checkbox"/> Credible Baseline</li> <li><input checked="" type="checkbox"/> Additionality</li> <li><input checked="" type="checkbox"/> Emission Reduction calculations</li> <li><input checked="" type="checkbox"/> Monitoring Plan</li> <li><input checked="" type="checkbox"/> No GHG Double Counting</li> <li><input checked="" type="checkbox"/> Local Stakeholder Consultation Process</li> <li><input checked="" type="checkbox"/> Global Stakeholder Consultation Process</li> <li><input checked="" type="checkbox"/> United Nations Sustainable Development Goals (Goal No 13- Climate Change)</li> <li><input type="checkbox"/> Others (please mention below)</li> </ul>
<p><b>Project Verification Criteria:</b> Optional requirements to be assessed</p>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Environmental Safeguards Standard and do-no-harm criteria</li> <li><input checked="" type="checkbox"/> Social Safeguards Standard do-no-harm criteria</li> <li><input checked="" type="checkbox"/> United Nations Sustainable Development Goals (in additional to SDG 13)</li> <li><input checked="" type="checkbox"/> CORSIA requirements</li> </ul>
<p><b>Project Verifier’s Confirmation:</b> The <i>GCC Project Verifier</i> has verified the GCC project activity and therefore confirms the following:</p>	<p>The GCC Project Verifier 4K Earth Science Private Limited certifies the following with respect to the GCC Project Activity “Astronergy Solar Turkey 3”.</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> The Project Owner has correctly described the Project Activity in the Project Submission Form (version 08 dated 28/11/2023) including the applicability of the approved methodology <i>AMS-I.D Version 18.0</i> and meets the methodology applicability conditions and is expected to achieve the forecasted real ,measurable and additional GHG emission reductions, complies with the monitoring methodology, has appropriately conducted local and global stakeholder consultation processes and has calculated emission reductions estimates correctly and conservatively.</li> <li><input checked="" type="checkbox"/> The Project Activity is likely to generate GHG emission reductions amounting to the estimated 87,704 tCO<sub>2e</sub> fixed crediting period of 10 years, as indicated in the PSF, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2.</li> </ul>

	<p><input checked="" type="checkbox"/> The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard, and is likely to achieve the following labels:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Environmental No-net-harm Label (<b>E+</b>)</li> <li><input checked="" type="checkbox"/> Social No-net-harm Label (<b>S+</b>)</li> </ul> <p><input checked="" type="checkbox"/> The Project Activity is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), complies with the Project Sustainability Standard, and contributes to achieving a total of 03 SDGs, with the following<sup>4</sup> SDG certification label (<b>SDG+</b>):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Bronze SDG Label</li> <li><input checked="" type="checkbox"/> Silver SDG Label</li> <li><input type="checkbox"/> Gold SDG Label</li> <li><input type="checkbox"/> Platinum SDG Label</li> <li><input type="checkbox"/> Diamond SDG Label</li> </ul> <p><input checked="" type="checkbox"/> The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.3 paragraph 23-25, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project</p> <p><input checked="" type="checkbox"/> The Project Activity complies with all the applicable GCC rules<sup>5</sup> and therefore recommends GCC Program to register the Project activity with above mentioned labels.</p>
<p><b>Project Verification Report, reference number and date of approval</b></p>	<p>1.0 dated 28/11/2023 Ref No: 22171-GCC-PV</p>
<p><b>Name of the authorised personnel of GCC Project Verifier and his/her signature with date</b></p>	<p>Chandrakala R  Managing Director (28/11/2023)</p>

<sup>4</sup> SDG Certification labels: Bronze label (1 star): by achieving 2 out of 17 SDGs; Silver label (2 star): by achieving 3 out of 17 SDGs; Gold label (3 star): by achieving 4 out of 17 SDGs; Platinum label (4 star): by achieving 5 out of 17 SDGs; and Diamond label (5 star): by achieving more than 5 out of 17 SDGs.

<sup>5</sup> "GCC Rules" are defined in Project Definitions and refers to the rules and requirements set out by the GCC program related to GHG emission reductions and its voluntary certification labels and are available on the GCC Program's public website: <https://www.globalcarboncouncil.com/resource-centre.html>

# 1. PROJECT VERIFICATION REPORT

## Section A. Executive summary

### Summary of the Project activity:

Implemented with the objective of generating clean energy (electricity) by harnessing renewable energy (solar) resources and curbing emission of greenhouse gas, the proposed project activity includes bundled grid connected Solar Power Projects (comprising of eight individual solar power plants) with cumulative capacity of 7.630 MWe. The solar power projects are deployed in Türkiye by VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ, VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ, VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ, VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ, VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ, SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ., NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ., KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ. at sites where no renewable/solar power plants were operating prior to the implementation of the project activity (green-field power plant<sup>6</sup>). The electricity generated from project activity (operational solar power plant) is exported to National Grid of Türkiye, thus replaces the feeding of equivalent amount of electricity generated from the operation of 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.

The project activity thus reduces the anthropogenic emissions of greenhouse gases (GHGs) associated with equivalent amount of electricity generation from the existing grid connected power plants (mostly fossil fuel based) and from addition of new generation sources into the grid.

As the project activity complies to the definition of a Greenfield power plant, therefore the baseline scenario as per paragraph 19 under the Section 5.2 of applied methodology is “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”, as described in the combined margin (CM) calculations described in “TOOL07: Tool to calculate the emission factor for an electricity system”.

The project boundary includes the project power plants (project sites where the solar power plants has been installed including the solar power plants, power evacuation infrastructures, energy metering points, switch yards and other civil constructions) implemented in Türkiye and all other power plants/units connected physically to the national (Türkiye) grid that the project power plants is connected to.

The project is expected to result in an average annual supply of 13,518 MWh/year (between 23/11/2017 - 22/11/2027) of green power to the national grid across the crediting period<sup>7</sup> thereon displacing equivalent amount of electricity from the generation-mix of power plants connected to the national grid, which is mainly dominated by thermal/fossil fuel-based power plant. The average annual emission reduction from the project is estimated to be around 8,879 tCO<sub>2e</sub>/annum and a cumulative emission reduction of 87,704 tCO<sub>2e</sub> for the entire crediting period of 10 years.

As per “Guidelines for the Reporting and Validation of Plant Load Factors” para 3 point (b) “The plant load factor determined by a third party contracted by the project participants”. As the project activity is located in Turkey. The estimated electricity generated and the CUF has been taken from the third-party report prepared by TÜV NORD (Hangzhou) Co., Ltd contracted by the project participant Hence the CUF calculated is as per the EB guidelines.

	Milestone			
Names of the Plants	Provisional Acceptance	EIA Approval	Connection Agreement	System Use Agreement



Project Verification Report

	(commissioning)			
Yaveriye 9	02/02/2018	29/04/2015	20/02/2018	02/03/2018
Yaveriye 10	02/02/2018	29/04/2015	20/02/2018	02/03/2018
Yaveriye 11	02/02/2018	29/04/2015	20/02/2018	02/03/2018
Yaveriye 12	02/02/2018	29/04/2015	20/02/2018	02/03/2018
Yaveriye 13	02/02/2018	29/04/2015	20/02/2018	02/03/2018
Çevretepe 1	23/11/2017	21/07/2015	27/07/2016	06/12/2017
Çevretepe 2	23/11/2017	21/07/2015	27/07/2016	06/12/2017
Çevretepe 3	23/11/2017	21/07/2015	27/07/2016	06/12/2017

According to the letter of authorization, GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık ve Tic. A.Ş. have been selected as the focal point for the project verification.

Project	Project Owner
Yaveriye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
Yaveriye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
Yaveriye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
Yaveriye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
Yaveriye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
Çevretepe 1	SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.
Çevretepe 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.
Çevretepe 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.

The Location details of the project activity are mentioned below:

Address and geodetic coordinates of the physical site of the Project Activity			
Physical address		Latitude	Longitude
Yaveriye 9 Yaveriye 10 Yaveriye 11 Yaveriye 12 Yaveriye 13	Osmaniye Province / Merkez District / Sakızgediği Neighborhood	37.0950 N 37° 05' 42"	36.1683 E 36° 10' 6"
Çevretepe 2 Çevretepe 1 Çevretepe 3	Adana Province / Ceyhan District / Çevretepe Neighborhood	36.8922 N 36° 53' 32"	35.7981 E 35° 47' 53"

Scope of Verification:

The scope of the services provided by 4K Earth Science Private Limited for the project is to perform Project Verification of concerned GCC Project Activity. The scope of verification is to assess the claims and assumptions made in the Project Submission Form (PSF) against the GCC criteria, including but not limited to, GCC PS, GCC VS, applied CDM methodology, applied CDM Tools and other relevant rules and

## Project Verification Report

requirements established under Program process. The verification scope is given as a thorough independent and objective assessment of the project design including especially the correct application of the methodology, the project's baseline study, additionality justification, local stakeholder commenting process, environmental impacts and monitoring plan, which are included in the PSF and other relevant supporting documents, to ensure that the GCC project activity meets all relevant and applicable GCC criteria.

### Verification Process and Methodology

The verification of the project consisted of the following steps:

- Publication of the project PSF (Project submission Form).
- Desk review of the PSF and supporting documents submitted by the project owner
- Remote audit assessment, background investigation and follow-up interviews with personnel of the project owner and its representatives.
- Draft verification reporting based on the audit findings and desk review of the PSF.
- Resolution of corrective actions (if any)
- Final Verification report based on the closure of corrective actions
- Technical review of the final verification opinion along with other documents by the independent competent technical review team
- Final approval of the final verification opinion

### Conclusion:

The review of the PSF, supporting documentation and the subsequent follow-up interviews have provided 4KES with sufficient evidence to determine the project's fulfillment of all the stated criteria. In our opinion, the project activity "Astronergy Solar Turkey 3" meets all applicable GCC requirements for the PSF and correctly applied methodology the *AMS I.D Version 18.0*. The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1.3, v1.3 paragraph 23-25, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project

The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard and therefore requests GCC Steering Committee to append to this project Environmental No-net-harm Label (E+), Social No-net-harm Label (S+) to this project.

The Project Activity is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), complies with the Project Sustainability Standard and therefore requests GCC Steering Committee to append UN SDG Certification Labels (SDG+) to this project.

The Project activity is being recommended to GCC Steering Committee for request for registration.

The Project activity is not recommended for request for registration.

## Section B. Project Verification team, technical reviewer and approver

### B.1. Project Verification team

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of GCC Project Verifier or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Project Verification findings
1.	Team Leader	IR	S R	Anand	Central Office	X		X	X
2.	Technical Expert	IR	S R	Anand	Central Office	X		X	X
3.	Financial Expert	IR	Puratchikkanal	Ma Paa	Central Office	X		X	X
4.	Local Expert	EI	Ozkan	Gurcan	Central Office	X		X	X

### B.2. Technical reviewer and approver of the Project Verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of GCC Project Verifier or outsourced entity)
1.	Technical reviewer	EI	Badaya	Rohit	Central Office
2.	Approver	IR	Chandrakala	R	Central Office

## Section C. Means of Project Verification

### C.1. Desk/document review

The report is based on the assessment of the PSF undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., remote audit, electronic (telephone or e-mail) interviews) and also the review of the applicable approved methodological and relevant tools, guidance and GCC decisions. Additionally, the cross checks were performed for information provided in the PSF using information from sources other than the verification sources, the project verification team's sectoral or local expertise and, if necessary, independent background investigations

All the documents used for arriving project verification conclusion are listed in Appendix 03 and referenced accordingly in the project verification report

### C.2. On-site inspection

Duration of on-site inspection: NA
------------------------------------

No.	Activity performed on-site	Site location	Date	Team member
1.	Opening Meeting	-	-	-
2	Verification of Installation and monitoring procedure of the project activity.	-	-	-
3	Document Review & Closing Meeting	-	-	-

According to paragraph 29 of Verification Standard/3/, on-site visit is not mandatory for the Project Activities if the estimated average annual GHG emission reductions or net anthropogenic GHG removals are less than 100,000 t CO<sub>2</sub><sub>eq</sub> and there is no pre-project information that is relevant to the registration requirements for the project activity and may not be traceable after the registration since the project has been operational since 23/11/2017.

Project Verification team performed the Google Meet remote interview on 06/02/2023 and interviewed PO representative/ Consultant and reviewed documents to achieve a reasonable level of assurance in the verification. The interview details are provided in the section C.3.

### C.3. Interviews

No.	Interview			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Yaka	Emrah	Astronergy Solar Turkey Enerji A.Ş. – O&M Manager	06/02/2023	<ul style="list-style-type: none"> <li>• Project Implementation status</li> <li>• Project Boundary</li> <li>• Methodology Eligibility criteria</li> <li>• Host country Requirements</li> <li>• Monitoring Plan</li> <li>• Project activity start date and Crediting period</li> <li>• Roles and responsibilities of the project owner</li> <li>• Local Stake holder consultation</li> <li>• Baseline assumptions</li> <li>• Emission reduction calculations</li> <li>• Additionality</li> <li>• Training to the Monitoring personnel</li> <li>• Legal Ownership of the project activity</li> <li>• Doble counting of the carbon credits of the project activity</li> <li>• E+, S+, SDG+ and CORSIA aspects as per the PSF and GCC requirements</li> </ul>	Anand S R  Kanal M P  Gurcan Ozkan
2.	Gülenç	Murat	Astronergy Solar Turkey Enerji A.Ş. – Project Engineer			
3.	İdilKayan	Ayşegül	GTE Sustainability and Energy Consultancy – project expert			
4.	Kanbur	Ece	GTE Sustainability and Energy Consultancy – project expert			
5.	Küçük	İbrahim	Osmaniye/Türkiye – Astronergy Projects Guest			
6.	Orhan	Fadıl	Adana/Türkiye – Astronergy Projects Guest			

#### C.4. Sampling approach

Not applicable as no sampling has been used during the project verification.

#### C.5. Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	Applicable to Project Types	No. of CL	No. of CAR	No. of FAR
<b>Green House Gas (GHG)</b>				
Identification and Eligibility of project type	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	CL 01	CAR 02	-
General description of project activity	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	CL 02	CAR 01	-
Application and selection of methodologies and standardized baselines	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-	-	-



- Application of methodologies and standardized baselines	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	CL 03		-
- Deviation from methodology and/or methodological tool	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-	-	-
- Clarification on applicability of methodology, tool and/or standardized baseline	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-		-
- Project boundary, sources and GHGs	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-	-	-
- Baseline scenario	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-	CAR 03	-
- Demonstration of additionality including the Legal Requirements test	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-	CAR 04, 06	-
- Estimation of emission reductions or net anthropogenic removals	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>		CAR 07	-
- Monitoring plan	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>		CAR 05	-
Start date, crediting period and duration	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-		-
Environmental impacts	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-		-
Local stakeholder consultation	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub>	-		-
Approval & Authorization- Host Country Clearance	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-		-
Project Owner- Identification and communication	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-	CAR 08	-
Global stakeholder consultation	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub>	-	-	-
Others (please specify)	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-	-	-
<b>VOLUNTARY CERTIFICATION LABELS</b>				
Environmental Safeguards (E <sup>+</sup> )	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub>	-		-
Social Safeguards (S <sup>+</sup> )	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub>			
Sustainable development Goals (SDG <sup>+</sup> )	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub>	-		-
Authorization on Double Counting from Host Country (only for CORSIA)	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub>	-	-	FAR 01
CORSIA Eligibility (C <sup>+</sup> )		-	-	-
<b>Total</b>	-	03	08	01

## Section D. Project Verification findings

### D.1. Identification and eligibility of project type

<b>Means of Project Verification</b>	<p>The project is eligible under Type A2 (Sub-Type1) category as per GCC Project standard/2/ and Clarification No 01/25/ which is acceptable as the project is neither registered nor in process of registration with any GHG/Non-GHG Program and started since 23/11/2017 which is the earliest date of commissioning of the plants which are part of the bundle. The commissioning document/12/ of the project activity has been verified in this regard and found in order. Further following project meets the Type A2 (Sub-Type 1) projectcategory as:</p> <ul style="list-style-type: none"> <li>• It is not required by a legal mandate and it does not implement a legally enforced mandate, as confirmed by the assessment team verification of the relevant policies pertaining to generation of energy in the host country i.e., Regulation on Unlicensed Electricity Production In The Electricity Market /34/, Regulation on Electricity Market Connection And System Usage /35/, Regulation on Environmental Impact Assessment /36/, Law On The Use Of Renewable Energy Sources For Electric Energy Generation /37/, Environment Law /38/.</li> <li>• It complies with all the applicable host country legal requirements and it ensures compliance with legal requirements. The project is a renewable energy project activity and meets the host country requirements of sustainable development criteria. According to the Power Purchase Agreement between the legal owners and distribution companies details of which are provided in the below table signed for the project activity prior to the start date of the Project activity which is in-line with the paragraph 16 (b)of Project Standard</li> </ul>
--------------------------------------	--

	<p>Version 3.1, the project owner has demonstrated that required approvals and authorizations are available or being processed prior to the start of commercial operations of the project activity which is acceptable to the verification team.</p> <table border="1"> <thead> <tr> <th>Project</th> <th>Project Owner</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Yav eriye 9</td> <td>VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> <td rowspan="6">Osmaniye Province / Merkez District / Sakızgediği Neighborhood</td> </tr> <tr> <td>Yav eriye 10</td> <td>VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> </tr> <tr> <td>Yav eriye 11</td> <td>VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> </tr> <tr> <td>Yav eriye 12</td> <td>VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> </tr> <tr> <td>Yav eriye 13</td> <td>VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> </tr> <tr> <td>Çevr etep e 1</td> <td>SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.</td> <td rowspan="3">Adana Province / Ceyhan District / Çevretepe Neighborhood</td> </tr> <tr> <td>Çevr etep e 2</td> <td>NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.</td> </tr> <tr> <td>Çevr etep e 3</td> <td>KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• The System connection agreement are executed by the legal owner, the connection agreement between distribution company to users.).</li> <li>• The project owner has selected GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık ve Tic. A.Ş. to be their focal point for the project verification.</li> <li>• The project also delivers real, measurable and additional emission reduction of 8,879 tCO<sub>2e</sub> /8/ annually (average value over the crediting period) as compared to the baseline scenario</li> <li>• Project applies an approved CDM monitoring and baseline methodology AMS I.D Grid-connected renewable electricity generation, Version 18.0.</li> </ul>	Project	Project Owner	Location	Yav eriye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Osmaniye Province / Merkez District / Sakızgediği Neighborhood	Yav eriye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Yav eriye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Yav eriye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Yav eriye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Çevr etep e 1	SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	Adana Province / Ceyhan District / Çevretepe Neighborhood	Çevr etep e 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	Çevr etep e 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.
Project	Project Owner	Location																				
Yav eriye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Osmaniye Province / Merkez District / Sakızgediği Neighborhood																				
Yav eriye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ																					
Yav eriye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ																					
Yav eriye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ																					
Yav eriye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ																					
Çevr etep e 1	SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.		Adana Province / Ceyhan District / Çevretepe Neighborhood																			
Çevr etep e 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.																					
Çevr etep e 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.																					
<b>Findings</b>	CL 01 is raised and closed successfully.																					
<b>Conclusion</b>	The project is eligible as per the requirements under section 4 and Section 5 of the GCC project standard Version 3.1/2/ and Section 6 of the clarification no 1/22/ of GCC Version 1.3 which was verified from the documents/12/ submitted by the project owner. Further project verification team cross checked the Clean Development Mechanism (CDM) website/30/, VERRA website/31/, Gold Standard (GS) website/32/, Universal Carbon Registry (UCR) /60/, confirmed that the project was not submitted or registered under any other GHG programs like Universal Carbon Registry (UCR)/50/ for the information regarding the consistency of the title of the project activity , GPS coordinates, Legal Ownership of the Project activity and confirmed that the project was not submitted or registered under any other GHG programmes and non-voluntary non-GHG Programs.																					

## D.2. General description of project activity

<b>Means of Project Verification</b>	<p>The project involves installation of a bundle solar power project with a cumulative capacity 7.63 MWe owned by 8 different legal owners. The purpose of the project activity is to utilize clean technology that harnesses renewable solar energy to generate electricity and there by feed the generated electricity to the grid. The project activity consists of panels, Central Inverters, Transformers and other relay and protection system. Thus, the project activity generated average 13,518 MWh/year electricity and displacing 8,879 tCO<sub>2e</sub>/year. 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 The Location details of project locations are mentioned in section A of this report.</p> <p>The project owners list is provided in table below.</p>																													
	<table border="1"> <thead> <tr> <th>Project</th> <th>Project Owner</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Yaveriye 9</td> <td>VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> <td rowspan="5">Osmaniye Province / Merkez District / Sakızgediği Neighborhood</td> </tr> <tr> <td>Yaveriye 10</td> <td>VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> </tr> <tr> <td>Yaveriye 11</td> <td>VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> </tr> <tr> <td>Yaveriye 12</td> <td>VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> </tr> <tr> <td>Yaveriye 13</td> <td>VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ</td> </tr> <tr> <td>Çevretepe 1</td> <td>SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.</td> <td rowspan="3">Adana Province / Ceyhan District / Çevretepe Neighborhood</td> </tr> <tr> <td>Çevretepe 2</td> <td>NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.</td> </tr> <tr> <td>Çevretepe 3</td> <td>KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.</td> </tr> </tbody> </table>									Project	Project Owner	Location	Yaveriye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Osmaniye Province / Merkez District / Sakızgediği Neighborhood	Yaveriye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Yaveriye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Yaveriye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Yaveriye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Çevretepe 1	SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	Adana Province / Ceyhan District / Çevretepe Neighborhood	Çevretepe 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	Çevretepe 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.
	Project	Project Owner	Location																											
	Yaveriye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Osmaniye Province / Merkez District / Sakızgediği Neighborhood																											
	Yaveriye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ																												
	Yaveriye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ																												
	Yaveriye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ																												
	Yaveriye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ																												
	Çevretepe 1	SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	Adana Province / Ceyhan District / Çevretepe Neighborhood																											
	Çevretepe 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.																												
Çevretepe 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.																													
<p>The equipment's expected lifespan is estimated at 25 years based on both manufacturer specifications<sup>6</sup> and industry standards<sup>7</sup>. These power plants were commissioned on 23/11/2017 in Adana Province and 02/02/2018 in Osmaniye Province. Consequently, the plants have been operational for approximately 6 years each.</p> <p>Technical information on each plant are given in the tables below.</p>																														
<p><b>Technical information on the solar panels</b></p>																														
	Brand	Model	Max. module power (Wp)	Number of modules	Capacity (kWe)	Capacity (kWp)	Estimated Generation (MWh/year)	Production Year																						
Yaveriye 9	Astronergy	CHSM6610P	265	4008	950	1,062.12	1,721	2017																						

<sup>6</sup> [https://www.mgi.com.uy/images/pdf/paneles-poly-cristalin/20151014\\_CHSM6610P\\_3BB\\_40mm\\_frame.pdf](https://www.mgi.com.uy/images/pdf/paneles-poly-cristalin/20151014_CHSM6610P_3BB_40mm_frame.pdf)

<sup>7</sup> <http://storage.googleapis.com/wzukusers/user-22877132/documents/577d99aded6b09BhIRAJ/TP672M.pdf>

<b>Yaveriye 10</b>	Astronergy	CHSM6610 P	265	4008	950	1,062.12	1,721	2017
<b>Yaveriye 11</b>	Astronergy	CHSM6610 P	265	4008	950	1,062.12	1,721	2017
<b>Yaveriye 12</b>	Astronergy	CHSM6610 P	265	4008	950	1,062.12	1,721	2017
<b>Yaveriye 13</b>	Astronergy	CHSM6610 P	265	4008	950	1,062.12	1,721	2017
<b>Çevretepe 1</b>	Astronergy	CHSM6610 P	265	3956	960	1,048.34	1,693	2017
<b>Çevretepe 2</b>	Astronergy	CHSM6610 P	265	3956	960	1,048.34	1,693	2017
<b>Çevretepe 3</b>	Astronergy	CHSM6610 P	265	3956	960	1,048.34	1,693	2017
<b>TOTAL</b>			<b>31,908</b>	<b>7,630</b>	<b>960</b>	<b>8,455.62</b>	<b>135,178</b>	

#### Technical information on the inverters

	Brand	Model	Number	Production Year
<b>Yaveriye 9</b>	KACO	Blueplanet 50.0 TL3 / 50 kW	19	2017
<b>Yaveriye 10</b>	KACO	Blueplanet 50.0 TL3 / 50 kW	19	2017
<b>Yaveriye 11</b>	KACO	Blueplanet 50.0 TL3 / 50 kW	19	2017
<b>Yaveriye 12</b>	KACO	Blueplanet 50.0 TL3 / 50 kW	19	2017
<b>Yaveriye 13</b>	KACO	Blueplanet 50.0 TL3 / 50 kW	19	2017
<b>Çevretepe 1</b>	Sungrow	SG60KTL – 60 kW	16	2017
<b>Çevretepe 2</b>	Sungrow	SG60KTL – 60 kW	16	2017
<b>Çevretepe 3</b>	Sungrow	SG60KTL – 60 kW	16	2017

#### Technical information on the transformers

	Brand	Type	Voltage	Serial No.	Production Year
<b>Yaveriye 9</b>	BEST Trafo	Hermetic	31.5 / 0.40 kV	71816	2017
<b>Yaveriye 10</b>	BEST Trafo	Hermetic	31.5 / 0.40 kV	71819	2017
<b>Yaveriye 11</b>	BEST Trafo	Hermetic	31.5 / 0.40 kV	71817	2017
<b>Yaveriye 12</b>	BEST Trafo	Hermetic	31.5 / 0.40 kV	71820	2017
<b>Yaveriye 13</b>	BEST Trafo	Hermetic	31.5 / 0.40 kV	71818	2017
<b>Çevretepe 1</b>	ELTAŞ	Hermetic	31.5 / 0.40 kV	YT 17-2258	2017
<b>Çevretepe 2</b>	ELTAŞ	Hermetic	31.5 / 0.40 kV	YT 17-2283	2017
<b>Çevretepe 3</b>	ELTAŞ	Hermetic	31.5 / 0.40 kV	YT 17-2284	2017

#### Technical information on the meters

	Main Meter				Spare Meter			
	Brand	Type	Class	Serial Nr.	Brand	Type	Class	Serial Nr.

<b>Yaveriye 9</b>	Landis	Gyr E550	0.5S	37942251	Köhler	AEL.TF.21	0.5S	21005029
<b>Yaveriye 10</b>	Landis	Gyr E550	0.5S	37942232	Köhler	AEL.TF.21	0.5S	21004545
<b>Yaveriye 11</b>	Landis	Gyr E550	0.5S	37942230	Köhler	AEL.TF.21	0.5S	21004823
<b>Yaveriye 12</b>	Landis	Gyr E550	0.5S	37942231	Köhler	AEL.TF.21	0.5S	21004928
<b>Yaveriye 13</b>	Landis	Gyr E550	0.5S	37942233	Köhler	AEL.TF.21	0.5S	21004972
<b>Çevretepe 2</b>	Landis	Gyr E550	0.5S	37052847	Landis	Gyr E550	0.5S	37052847
<b>Çevretepe 1</b>	Landis	Gyr E550	0.5S	37052843	Landis	Gyr E550	0.5S	37052851
<b>Çevretepe 3</b>	Landis	Gyr E550	0.5S	37052845	Landis	Gyr E550	0.5S	37052842

According to the para 11 of the project standard /2/. The start date of the Crediting Period for such GCC Project Activities shall be on or after 1 Jan 2016 but not more than one year after the start date of the operations of the GCC Project Activity. Since, project activity is already commissioned on 23/11/2017 and is operational. The project activity described as Type A2 (Sub-Type 1) and applied AMS- 1.D: Grid connected renewable electricity generation – Version 18.0 falls into the small-scale category as per CDM methodology/9/.

In addition to generating emission reductions the project activity also qualifies for other voluntary certification labels

Achieving the United Nations Sustainable Development Goals – SDG+( Silver ) +3  
 Environmental No-net harm – (E+) +5  
 Social No-net harm – (S+) +2  
 CORSIA – C+

In the baseline scenario the main source of emission was found to be CO<sub>2</sub> as electricity was generated mainly through fossil-fuel based power plants whereas in project scenario the electricity is generated by the Solar Power plant thereby reducing the CO<sub>2</sub> emissions. Thus, non-application of GWP in this project activity was found to be acceptable as the project boundary does not include any of the GHG emissions in the project scenario as per the applied methodology.

The description in the PSF includes sufficient details and provides clarity on the project activity Further project verification team cross checked the other GHG programmes like Clean Development Mechanism (CDM) Registry /30/, VERRA Registry /31/, Gold Standard (GS) Registry /32/,and voluntary non-GHG Programs like Universal Carbon Registry (UCR)/50/ for the information regarding the consistency of the title of the project activity , GPS coordinates, Legal Ownership of the Project activity to determine if the project was part of any other GHG Program prior to commencement of this verification. It was confirmed that the involved project owners have not submitted the project under any other GHG program apart from GCC.



<b>Findings</b>	CL 02, CAR 01 and CAR 02 are raised and closed successfully
<b>Conclusion</b>	The project description was verified based on the review of document/12/14/. Based on the review of documents and by means of remote audit verification the details provided in the PSF is found acceptable and complete.

### D.3. Application and selection of methodologies and standardized baselines

#### D.3.1 Application of methodology and standardized baselines

Means of Project Verification	Applicability criterion as per AMS 1.D Version 18.0	Verifier Assessment.
	<p>This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <ul style="list-style-type: none"> <li>a) Supplying electricity to a national or a regional grid; or</li> <li>b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.</li> </ul>	<p>The project activity involves the installation of a green-field solar project for renewable electricity generation. In baseline scenario, 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 hence it satisfies this applicability criteria</p>
	<p>Illustration of respective situations under which each of the methodology (i.e. “AMS-I.D.: Grid connected renewable electricity generation”, “AMS-I.F.: Renewable electricity generation for captive use and mini-grid” and “AMS-I.A.: Electricity generation by the user) applies is included in the appendix.</p>	<p>Based on the scope outlined in the appendix of the methodology (as provided below), the project activity is categorized under AMS-I.D. This classification is based on the fact that it involves a solar power plant that provides electricity to the national grid.</p>
	<p>This methodology is applicable to grid-connected renewable power generation project activities that:</p> <ul style="list-style-type: none"> <li>(a) install Greenfield power plant;</li> <li>(b) involve a capacity addition to (an) existing plant(s); (c) involve a retrofit of (an) existing plant(s)/unit(s); (d) involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) involve a replacement of (an) existing plant(s)/unit(s)</li> </ul>	<p>The proposed project activity is a green field, grid connected renewable power plant. Therefore, it confirms to the said criteria. This has been verified from the commissioning certificate provided by the project owner.</p>
	<p>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <ul style="list-style-type: none"> <li>a. The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</li> <li>b. The project activity is implemented in an existing</li> </ul>	<p>The proposed project activity is the installation of a new solar power plant/units. Therefore, the said criteria is not applicable. This has been verified from the commissioning certificate provided by the project owner.</p>

	<p>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<sup>2</sup>.</p> <p>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<sup>2</sup>.</p>	
	<p>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</p> <p>a) unit shall not exceed the limit of 15 MW</p>	<p>The project activity is the installation of a new grid connected 7.63 MWe renewable solar power project. This has been verified from the commissioning certificate provided by the project owner. Hence this is not applicable.</p>
	<p>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.</p>	<p>The project activity is the installation of a new grid connected 7.63 Mwe renewable solar power project. This has been verified from the commissioning certificate provided by the project owner. Hence this is not applicable.</p>
	<p>In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.</p>	<p>There is not retrofit or replacement hence it is not applicable. As this newly commissioned project there is no retrofit or replacement done.</p>
	<p>Combined heat and power (co-generation) systems are not eligible under this category.</p>	<p>The project activity does not involve with co-generation. Hence this criterion is not applicable. The project activity being a solar plant has been verified from the commissioning certificates and the photos provided by the project owner.</p>
	<p>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</p>	<p>The project activity is the installation of a new grid connected 7.63 Mwe renewable solar power project. Hence the criterion is not applicable as it is a solar power plant.</p>

	production with or without electricity” shall be explored.	
	In case biomass is sourced from dedicated plantations, the applicability criteria in the tool “Project emissions from cultivation of biomass” shall apply.	This is solar power project thus there is no biomass used. Hence, this condition is not applicable.
	<b>Tool 07: Tool to calculate the emission factor for an electricity system</b>	
	Applicability criterion	Assessment
	1. Para 3 of the applied Tool: 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).	According to “Türkiye National Network Emission Factor Data Sheet” document from Ministry of Energy and Natural Resources, estimation of OM, BM and CM is carried out by using “Tool to calculate the emission factor for an electricity system, ver 07.0” therefore the tools is applicable.
	2. Para 4 of the applied Tool Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, 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	The Turkish Ministry of Energy and Natural Resources considers only grid connected power plants for emission factor calculations. Therefore, the emission factor considered for emission reduction estimation is obtained from “Türkiye National Network Emission Factor Data Sheet” document from Ministry of Energy and Natural Resources published on 20/09/2022 <sup>8</sup> .
	3. Para 5 of the applied tool: In case of CDM projects the tool is not applicable if the project electricity	The project activity is located in Türkiye, an Annex I country. Since this project is being developed in Global Carbon Council. This criterion is not applicable

8

<https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>

	system is located partially or totally in an Annex I country	
	4. Para 6 of the applied Tool: Under this tool, the value applied to the CO <sub>2</sub> emission factor of biofuels is zero	As per Emission factor of National grid calculation document published by Türkiye Ministry of Energy and Natural Resources there are no grid connected biofuel power plants in the Türkiye, hence the condition is not applicable
	Tool 20 : Assessment of debundling for small-scale project activities”, version 04.1	
	Applicability criterion	Assessment
	This methodological tool is applicable to proposed small-scale project activities and small-scale CPAs in order to check whether they are debundled components of largescale project activities.	The proposed project activity with a cumulative capacity of 7.63 MWe is a small-scale project activity. Therefore, the tool is applicable to assess on whether the proposed small-scale project activities are de-bundled components of largescale project activities.
	TOOL 21: Demonstration of additionality of small-scale project activities- Version 13.1	
	Applicability criterion	Assessment
	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 methodology is approved in CDM and the tool is included by the same approved methodology viz., AMS-I.D version 18.0. Thus, the application of this tool was found to be acceptable, and the applicability criterion is met. The project owner does not propose any new methodologies to demonstrate additionality.
	Tool 27 : Investment Analysis, version 12.0	
	Applicability criterion	Assessment
This methodological tool is applicable to project activities that apply the methodological tool “Tool for the demonstration and assessment of additionality”, the methodological tool “Combined tool to identify the baseline scenario and demonstrate additionality”, the guidelines “Non-binding best practice examples to demonstrate additionality for SSC project activities”, or baseline and monitoring methodologies that use the investment analysis for the demonstration of additionality and/or the identification of the baseline scenario.	Project activity applies “Tool for the demonstration and assessment of additionality”. Hence this tool is applicable.	
In case the applied approved baseline and monitoring methodology contains requirements for the investment analysis that are different from those	Project activity applies “Tool for the demonstration and assessment of additionality”. Hence this tool is applicable.	

	<p>described in this methodological tool, the requirements contained in the methodology shall prevail.</p>	
	<p>General guidelines for SSC CDM methodologies</p>	
	<p>Applicability criterion</p>	<p>Assessment</p>
	<p>This document is applicable to project participants and coordinating/managing entities who apply small-scale CDM methodologies to small-scale CDM project activities and PoAs. This document is, however, not applicable to project participants and coordinating/managing entities using large-scale methodologies for project activities and PoAs that are within the small-scale project activity thresholds.</p>	<p>This project applies small-scale CDM methodology which AMS-I.D. This project does not use large-scale project therefore this is applicable to this project.</p>
	<p>The requirements and procedures specified in the small-scale CDM methodologies have precedence over the provisions in this document unless otherwise specified.</p>	<p>This project applies small-scale CDM methodology which AMS-I.D. therefore this is applicable to this project.</p>
	<p>Default Cost of Equity for Annex I Countries”, version 1.0</p>	
	<p>Applicability criterion</p>	<p>Assessment</p>
	<p>This information note is applicable to project activities that apply the CDM methodological tools “Tool for the demonstration and assessment of additionality” (CDM Tool 01), “Combined tool to identify the baseline scenario and demonstrate additionality” (CDM Tool 02), “Demonstration of additionality of small-scale project activities”(CDM Tool 21), “Demonstration of additionality of microscale project activities”(CDM Tool 19) and or tools and guidelines required in applied baseline and monitoring methodologies that use investment analysis for the demonstration of additionality and/or the identification of the baseline scenario.</p>	<p>This project is a project activity that uses Tool 01 and Tool 21. This project use investment analysis for the demonstration of additionality. Therefore, this document is applicable to this project.</p>
	<p>This document provides information/guidance, supplemental to CDM Tool 27 (version 11.0 and 12.0), to project owners and verifiers for projects located in Annex I Countries and using investment analysis for demonstration of additionality. The Project Owners/Verifiers shall always apply this document together with the CDM Tool 27 (version 11.0 or 12.0). This information note will be revised to</p>	<p>This project uses CDM Tool 27 version 12.0. Türkiye is listed in the GCC document. Therefore, this document is applicable to this project.</p>



	comply with any future revisions of CDM Tool 27.	
	It is not mandatory to use the default cost of equity values provided in this document and the project owners can calculate the cost of equity as per applicable versions of CDM Tool 27.	This document is used by the project to calculate cost of equity of the project.
	<b>Standard on Avoidance of Double Counting, version 1.0</b>	
	<b>Applicability criterion</b>	<b>Assessment</b>
	This document addresses the of avoidance of double claiming as referred in paragraph 3(c) above in line with the requirements of the CORSIA scheme as well as that of article 6.2. This document applies to GCC projects that voluntarily seeks C+ or CA+ market eligibility flags of GCC at the time of registration and/or at the time of issuance of Approved Carbon Credits (ACCs) issued by GCC.	This project voluntarily seeks C+ market eligibility flag of GCC at the time of registration and/or at the time of issuance of Approved Carbon Credits (ACCs) issued by GCC, therefore, this condition is fulfilled.
	C+ is the market eligibility flag denoting that carbon credit is eligible for the use towards meeting carbon neutral growth target of an international airline committed under CORSIA. CA+ is the market eligibility flag denoting that the carbon credit is eligible to be used for other purposes (other than international mitigation purposes of CORSIA or recipient country's NDC target compliance) such as voluntary carbon markets offsetting purposes, where the buyer requires that the issued carbon credit will be included in the corresponding adjustments towards host country NDC target	This project voluntarily seeks C+ market eligibility flag of GCC at the time of registration and/or at the time of issuance of Approved Carbon Credits (ACCs) issued by GCC, therefore, this condition is fulfilled.
	This document is intended to be used by all stakeholders including Project Owners, GCC Verifiers, the GCC Operations Team and the GCC Steering Committee and shall be read in conjunction with Project Standard, Verification Standard and PSF template and instructions therein and other applicable GCC documents.	This document is used by this project and Project Owners, therefore, this condition is fulfilled.
	<b>Common Eligibility Criteria</b>	
	Project Owner has below justified the common eligibility criteria of the proposed project activity as per the section 5.1 of the GCC project standard version 3.1.	
	<b>Applicability criterion</b>	<b>Assessment</b>
(a). Complies with the eligibility requirements of one of the project types allowed under the GCC, as stipulated in section 4 above;	As per the section 4 of the GCC project standard proposed project activity complies with the eligibility requirements of project Type A2	

		category under sub-type 1 with start of operations after 1 <sup>st</sup> January 2016 and before 5 <sup>th</sup> July 2020. Hence complied.				
	(b). Has started operations, and begun generating emission reductions, after 1 January 2016;	Proposed project activity has started the operations and begun generating emission reductions on 23/11/2017 which is after 1 January 2016. Hence Complied.				
	(c). Complies with the GCC rules related to					
	<ul style="list-style-type: none"> <li>(i) GHG emission reductions (mandatory requirement);</li> <li>(ii) Contributions to the UN SDGs (SDG+ label) (voluntary requirement for selection, but mandatory if selected);</li> <li>(iii) Do-no-net-harm Environmental requirements (E+ label) (voluntary requirement for selection, but mandatory if selected);</li> <li>(iv) Do-no-net-harm requirements for Society (S+ label) (voluntary requirement for selection, but mandatory of selected); and</li> <li>(v) Submission of Host Country Attestation on Double Counting as and when required by CORSIA (mandatory requirement for projects that intend to use ACCs for CORSIA).</li> </ul>	<ul style="list-style-type: none"> <li>(i) By generating and supplying the renewable electricity to the national grid Project activity reduces/ avoids the GHG emission reductions by displacing the equivalent amount of electricity in the national grid which would have been generated by consuming the fossil fuels and resulting the GHG emission reductions.</li> <li>(ii) Project Activity in addition to the GHG emission reductions also contributing to SDG 7, SDG 8 and SDG 13.</li> <li>(iii) Conducted Do-no-net-harm Environmental requirements for the project activity and complies with the GCC Environment and Social Safeguards Standard</li> <li>(iv) Conducted Do-no-net-harm requirements for Society for the project activity and complies with the GCC Project Sustainability Standard</li> <li>(v) Such attestation shall be provided during ER verification when the host country provides such provision.</li> </ul> <p>Hence project complied with all conditions.</p>				
<p><b>Specific Eligibility Criteria for Type A Projects</b></p> <p>As per the section 5.2 of the GCC project standard version 3.1 Project owner must justify the below specific eligibility criteria if the proposed project activity is a Type A project.</p> <table border="1"> <thead> <tr> <th>Applicability Criterion</th> <th>Justification</th> </tr> </thead> <tbody> <tr> <td>(a) Is not required by a legal mandate and does not implement</td> <td>This project is not required by a legal mandate and this project does not</td> </tr> </tbody> </table>			Applicability Criterion	Justification	(a) Is not required by a legal mandate and does not implement	This project is not required by a legal mandate and this project does not
Applicability Criterion	Justification					
(a) Is not required by a legal mandate and does not implement	This project is not required by a legal mandate and this project does not					

	a legally enforced mandate (government regulation or law);	implement a legally enforced mandate.
	(b) Complies with all applicable host-country legal requirements with compliance focused at project level scope. The Project Owners shall ensure compliance with legal requirements by demonstrating that the project has either acquired the necessary licenses for their implementation and operation or provide an undertaking that these approvals and the licenses are under process and shall be available prior to start of commercial operations of the project;	<ul style="list-style-type: none"> <li>• the Project Owner is a registered legal entity in the host country which is Türkiye.</li> <li>• Approvals from environmental authority were received on the dates provided in Table 1 in Section A.1. of the PSF, issued by Ministry of Environment, Urbanisation (new name is Ministry of Environment, Urbanisation and Climate Change)</li> <li>• Connection agreement was made on the dates provided in Table 1 in Section A.1. of the PSF, issued by TEİAŞ.</li> <li>• System use agreement was made on the dates provided in Table 1 in Section A.1. of the PSF, issued by TEİAŞ.</li> <li>• Commercial operation partially started first on 23/11/2017 (then on 02/02/2018) with the first commissioning document (provisional acceptance document) issued by Ministry of Energy and Natural Resources of Türkiye. <ul style="list-style-type: none"> <li>• As the dates above and in Section A.1. of the PSF prove, these documents were already available prior to start date of commercial operation of the project.</li> </ul> </li> </ul> <p>Hence complied.</p>
	(c) Delivers real, measurable, and additional emission reductions compared to its baseline; and	By generating and supplying the clean electricity to the national grid from the proposed solar power plant project activity, it delivers real, measurable, and additional emission reductions compared to its baseline
	(d) Applies an approved CDM or GCC Baseline and Monitoring Methodology.	Project Owner has applied approved small scale CDM methodology AMS I.D “Grid-connected renewable electricity generation” Version 18.0. Hence complied.
<b>Findings</b>	CL 03 is raised and closed successfully	
<b>Conclusion</b>	The project verification teams confirms that approved methodology: AMS I.D “small-scale methodology for grid-connected renewable electricity generation”, Version – 18.0 <sup>9</sup> /9/ is applicable to the PSF/26/. All applicability condition of the applied methodology and applicable tools are being met and the PSF/26/ are in line with all the requirements indicated in the methodology. Related eligibility criteria with respect to the applicability of the methodology have been established and met by the PSF of the GCC Project activity.	

<sup>9</sup>[https://cdm.unfccc.int/filestorage/2/P/7/2P7FS6ZQAR84LG3NMKYUH50WI9ODBC/EB81\\_repan24\\_AMS-I.D\\_ver18.pdf?t=bE58cjF3NjBufDAFn9mFEYXv3NGR7RjLViYw](https://cdm.unfccc.int/filestorage/2/P/7/2P7FS6ZQAR84LG3NMKYUH50WI9ODBC/EB81_repan24_AMS-I.D_ver18.pdf?t=bE58cjF3NjBufDAFn9mFEYXv3NGR7RjLViYw)

### D.3.2 Clarification on applicability of methodology, tool and/or standardized baseline

<b>Means of Verification</b>	Project	Since the applicability of methodology was found to be fulfilled, further clarification to the methodology were not required.
<b>Findings</b>		No finding was raised.
<b>Conclusion</b>		Since the applicability of methodology was found to be fulfilled, further clarification to the methodology were not required.

### D.3.3 Project boundary, sources and GHGs

<b>Means of Verification</b>	<b>Project</b>	As per the applied methodology AMS I.D Version 18.0, the spatial extent of the project boundary includes the power plant and all power plants connected physically to the electricity system that the GCC project power plant is connected to. The verification team conducted desk review of the implemented project to confirm the appropriateness of the project boundary identified. The verification 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 project activity will cause any deviation from the applicability of the methodology or accuracy of the emission reductions. The project boundary is verified by the verification team via commissioning certificates of the projects/12/ & power purchase agreement/14/ which is found to be acceptable and appropriate.		
		<b>Project</b>	<b>Project Owner</b>	<b>Location</b>
		Yav eriye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Osmaniye Province / Merkez District / Sakızgediği Neighborhood
		Yav eriye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	
		Yav eriye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	
		Yav eriye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	
		Yav eriye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	
		Çevr etep e 1	SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	Adana Province / Ceyhan District / Çevretepe Neighborhood
		Çevr etep e 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	
		Çevr etep e 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	
<b>Findings</b>		No findings raised in this context.		

<b>Conclusion</b>	<ul style="list-style-type: none"> <li>The baseline scenario identified for the proposed GCC project activity is in accordance with the applicable Project Verification requirements related to the establishment of the baseline scenario in the Verification Standard and Project Standard and AMS-I.D Small-scale Methodology Grid-connected renewable electricity generation, ver 18.0</li> <li>The project verification team was able to assess that complete information regarding the project boundary has been provided in PSF/26/ and could be assured from the line diagram.</li> <li>The project verification team confirms that the identified boundary, selected emissions sources are justified for the project activity.</li> </ul>
-------------------	--

### D.3.4 Baseline scenario

<b>Means of Project Verification</b>	<p>As per the small scale methodology AMS-I.D- Grid connected renewable electricity generation (Version 18.0) para 19: “Baseline scenario for greenfield power plant-The baseline scenario is that the electricity delivered to 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, as reflected in combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system (Version 07.0)”. The project activity involves setting up of bundled solar power projects (comprising of ten individual solar power plants with cumulative capacity of 7.63 MWe) to produce electricity by harnessing renewable energy (solar energy) resource and supply it to the national grid of Türkiye. In the absence of the project activity, the equivalent amount of power would have generated by the operation of grid connected power plants and by the addition of new generation sources. Hence, the baseline for the project activity is the equivalent amount of power of the Türkiye National grid that are displaced due to the project activity.</p> <p>The combined margin (<math>EF_{grid, CM, y}</math>) is the result of a weighted average of two emission factor pertaining to the electricity system: the operating margin (OM) and build margin (BM) Calculation for this combined margin must be based on data from an official source (where available) and made publicly available under “Türkiye National Network Emission Factor Data Sheet” published by Ministry of Energy and Natural Resources. The Operating, Build and Combined Margin Emission Factors have been using the “Tool to calculate the emission factor for an electricity system”. The emission factor coefficient (<math>EF_{grid, CM, y}</math>) could be used as 0.6488 tCO<sub>2e</sub>/MWh.</p>											
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Value</th> <th>Nomenclature</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>EF<sub>grid, CM, y</sub></td> <td>0.6488 tCO<sub>2e</sub>/MWh</td> <td>Combined margin CO<sub>2</sub> emission factor for the project electricity system in year y</td> <td rowspan="2">“Türkiye National Network Emission Factor Data Sheet” published by Ministry of Energy and Natural Resources on 20/09/2022<sup>10</sup>.</td> </tr> <tr> <td>EF<sub>grid, OM, y</sub></td> <td>0.7424 tCO<sub>2e</sub>/MWh</td> <td>Operating margin CO<sub>2</sub> emission factor for the project electricity system in year y</td> </tr> </tbody> </table>	Parameter	Value	Nomenclature	Source	EF <sub>grid, CM, y</sub>	0.6488 tCO <sub>2e</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system in year y	“Türkiye National Network Emission Factor Data Sheet” published by Ministry of Energy and Natural Resources on 20/09/2022 <sup>10</sup> .	EF <sub>grid, OM, y</sub>	0.7424 tCO <sub>2e</sub> /MWh	Operating margin CO <sub>2</sub> emission factor for the project electricity system in year y
Parameter	Value	Nomenclature	Source									
EF <sub>grid, CM, y</sub>	0.6488 tCO <sub>2e</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system in year y	“Türkiye National Network Emission Factor Data Sheet” published by Ministry of Energy and Natural Resources on 20/09/2022 <sup>10</sup> .									
EF <sub>grid, OM, y</sub>	0.7424 tCO <sub>2e</sub> /MWh	Operating margin CO <sub>2</sub> emission factor for the project electricity system in year y										

10

<https://enerji.gov.tr/Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>



	EFgrid,BM,y	0.3680 tCO <sub>2e</sub> /MWh	Build margin CO <sub>2</sub> emission factor for the project electricity system in year y	
<p>During the implementation of the project activity, the relevant national and/or sectoral policies, regulations and circumstances are taken into account. Implementation of solar PV based power generation unit for electricity generation is not mandatory under any law in Türkiye, the project activity is thus a voluntary action.</p> <p>Despite the gradual increase in renewable energy sources (including solar energy) the installed power generation capacity is predominantly based on fossilfuel based energy sources, hence the electricity grid is fed by electricity generated predominantly in fossil-fuel based power plants.</p>				
<b>Findings</b>	CAR 03 is raised and closed successfully.			
<b>Conclusion</b>	<p>The project verification team confirms the following;</p> <ul style="list-style-type: none"> <li>• All assumptions and data used by the project participants are listed in the PSF/26/, including their references and sources;</li> <li>• All documentation used by project participants as the basis for assumptions and source of data for establishing the baseline scenario is correctly quoted and interpreted in the PSF/26/;</li> <li>• The project verification team also concluded that the identified baseline scenario reasonably represents what would occur in the absence of the project activity.</li> </ul>			

### D.3.5 Demonstration of additionality

<b>Means of Project Verification</b>	<p>For demonstrating additionality under GCC the project activity is required to undergo the following tests</p> <p>a) <b>Legal Requirement Test:</b> The project is not required by a law that is enforced. The project passes the legal requirement test since there are no enforced laws, statutes, regulations, court orders, environmental-mitigation agreements, permitting conditions or other legally-binding mandates that are requiring this project’s implementation, or requiring the implementation of a similar technology/measure that would achieve equivalent levels of GHG emission reductions with this project. Voluntary commitments/agreements within a sector or by an entity do not constitute the legal requirements. Hence, the project is additional as per paragraph 46 of Project Standard. The following regulations have been examined and the outcome is that they do not contain any legal force or requirement for this solar power plant project.</p> <p>The assessment team assessed the relevant regulations to confirm that the project meets the legal requirement test:</p> <ul style="list-style-type: none"> <li>• Regulation on Unlicensed Electricity Production in The Electricity Market /34/</li> <li>• Regulation on Electricity Market Connection and System Usage /35/</li> <li>• Regulation on Environmental Impact Assessment /36/</li> <li>• Law On the Use of Renewable Energy Sources for Electric Energy Generation /37/</li> <li>• Environment Law /38/</li> <li>✓ Connection agreement was done on 20/02/2018 (Yaveriye 9-10-11-12-13) and on 06/12/2017 (Çevretepe 1-2-3) issued by Toroslar Elektrik Dağıtım A.Ş (local distribtion company).</li> </ul>
--------------------------------------	--

	<ul style="list-style-type: none"> <li>✓ System use agreement was done on 02/03/2018 (Yaveriyeye 9-10-11-12-13) and on 27/07/2016 (Çevre-tepe 1-2-3) issued by Toroslar Elektrik Dağıtım A.Ş (local distribution company).</li> <li>✓ In line with Turkish environmental regulations, an “Environmental Impact Assessment (EIA) Approval Letter (out of scope)” was approved by the Ministry of Environment and Forestry in 29/04/2015 (Yaveriyeye 9-10-11-12-13) and on 21/07/2015 (Çevre-tepe 1-2-3).</li> <li>✓ With this model, it is aimed to bring small-scale production facilities to our country's economy in order to ensure supply security and to reduce transmission/distribution costs and loss amounts in the electricity grid with the Distributed generation method.<sup>11</sup></li> </ul> <p>In addition to the evidence assessment, a confirmation from the local expert was received which confirmed that the project is meeting the local legal regulations.</p> <p>b) <b>Additionality Tests:</b> According to the CDM tool “Positive lists of Technologies”, version 04.0, section 5.2.3, solar photovoltaic technologies are not included in the positive list that confer automatic additionality to CDM project activities. So, projects-specific additionality test is conducted.</p> <p>As per Section 5, para. 10 of “Demonstration of additionality of small-scale project activities, version 13.1:</p> <p>The PP has adopted the stepwise approach for demonstrating and assessing the additionality of the project activity as follows:</p> <p><b>Step 0: Demonstration whether the proposed project activity is the first-of-its-kind.</b></p> <p>This step is optional and not used for this project.</p> <p><b>Step 1: Identification of alternatives to the project activity consistent with current laws and regulations</b></p> <p>As per the applied methodology, the project activity is the installation of a Greenfield power plant, and 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.” Thus, the baseline scenario is applied as per the methodology and no alternative selection is required as per para 50 of the PS version 3.1/2/.</p> <p>Sub-step 1a: Not applicable</p> <p>Sub-step 1b: Not applicable</p> <p><b>Step 2: Investment analysis</b></p> <p>Under step 2, it is demonstrated that project activity is not economically or financially feasible, without the revenue from the sale of certified emission reductions.</p> <p><b>Sub-step 2a - Determine appropriate analysis method</b></p> <p>There are three options for the determination of analysis method which are:</p> <ul style="list-style-type: none"> <li>• Simple Cost Analysis</li> <li>• Investment Comparison Analysis and</li> </ul>
--	--

<sup>11</sup> Republic of Türkiye Ministry of Energy and Natural Resources: <https://enerji.gov.tr/eigm-yenilenebilir-enerji-uretim-faaliyetleri-lisassiz-elektrik-uretimi#:~:text=2020%20y%C4%B1l%C4%B1n%C4%B1n%20ilk%209%20ay%C4%B1nda,kurulu%20g%C3%BC%C3%A7%20bilgileri%20yer%20almaktad%C4%B1r.>

- Benchmark Analysis

Since project generates economic benefits from sales of electricity, the simple cost analysis is not applicable. Also, since the baseline of the project is generation of electricity by the grid, no alternative investment is considered at issue. So, it has been decided to use benchmark analysis for evaluation of the project investment.

**Sub-step 2b: Option III. Apply benchmark analysis**

For benchmark analysis, "Default Cost of Equity for Annex I Countries", version 1.0 document published by GCC is used. Since this project uses Investment Analysis, version 12, Table 2 in the Default Cost of Equity for Annex I Countries document is used. This project is categorized in Group 1 (Energy Industries) projects mentioned in paragraph 15 of the document. As para 18 of the document "*The default cost of equity values in Table 1 and Table 2 are calculated after taxes and are expressed in percentages in real terms.*"

Therefore, the post-tax equity IRR benchmark for this project is therefore 14.39%.

As per para. 15 of Tool 27, this benchmark is applicable as follows:

The selected benchmark aligns with the specific type of IRR considered, as verified in the Investment Analysis Excel Spreadsheet, which focuses on "Equity IRR" for this project. The justification for this choice lies in the utilization of the "Default Cost of Equity for Annex I Countries, version 1.0" document from GCC, supplying the required/expected returns on equity, thereby validating the appropriateness of this benchmark.

Therefore, selected benchmark value was found to be appropriate for this project and representative of the Host Country Turkey and has been applied by similar projects (renewable energy power generation).

For the Adana (Çevretepe) plant, the investment decision date for the EPC (Engineering, Procurement, and Construction) contract with the contractor was on 25/05/2016. Meanwhile, for the Osmaniye (Yaveriye) plant, the investment decision date for the EPC contract with the contractor was on 21/02/2017.

The installed capacity of the solar power plant is stated as 7.63 MWe (8455 MWm), although it was documented as 8 MW in the Inspection Report by TÜV before the investment decision date. Solar panels were considered to have a depreciation period of 10 years, while the construction was considered to depreciate over 40 years, following the current depreciation list in accordance with Turkish Regulations<sup>12</sup>. The transmission loss value considered in the assessment was based on the latest available year at the time of the investment decision (year 2017). This value was derived from statistics obtained from TEIAS, specifically from the "Annual Development of Electricity Generation-Consumption and Losses in Türkiye."<sup>13</sup>

The electricity price after 10 years was calculated using average prices at the market. The

<sup>12</sup> No: 45.1.9 and No: 45.1.1. (for panels and solar power plants)

<https://www.mevzuat.gov.tr/mevzuatmetin/yonetmelik/9.5.6120%20ek.xls>

<sup>13</sup> TEIAS statistics, <https://webapi.teias.gov.tr/file/512cbf1d-0ca3-4492-b901-3722c7b682f7?download>

<p>average electricity prices (tariff) were calculated using data from database of EPIAS<sup>14</sup>. Dividing the weighted average market clearing price by the average currency (USD) during the year provides the electricity prices on the market, average of the years 2015 and 2016 were considered which results in 4.58 \$cents/kWh after 10 years. Additionally, it's noteworthy that the project does not utilize any Official Development Assistance (ODA) or government incentives.</p>			
<p><b>Main financial parameters used for investment analysis (Adana, Çevretepe)</b></p>			
Item	Value	Unit	Means of verification
Installed Capacity	3	MW	<p>The project capacity has been cross checked from the provisional acceptance which are issued by the Ministry of Energy and Natural Resources issued at the time of commissioning /12/.</p> <p>The project capacity was also cross verified from the Connection Agreement /15/ between PO &amp; users. Further, the same has been confirmed during remote audit by the project verification team and found to be correct.</p>
Grid Connected output	5,080	MWh	<p>Details on the amount of electricity supplied to the grid was verified from calculated based on the EPDK (EMRA) guidelines. The value has been sourced from the inspection reports (dated 08/06/2016 for Adana and dated 08/06/2016 for Osmaniye, which are before the investment decision date) for each plant by TÜV NORD (Hangzhou) Co., Ltd. hence is in accordance with para 3(b) of "Guidelines for the reporting and verification of Plant load factors" EB 48 Annex 11. The PLF value was therefore accepted by the assessment team.</p>
Currency Rate	2.9426	USD / TRY	<p>Central Bank of Republic of Türkiye  <a href="https://www.tcmb.gov.tr/kurlar/kurlar_tr.html">https://www.tcmb.gov.tr/kurlar/kurlar_tr.html</a></p>
Capital Costs	~3,407	1000 \$	<p>The total investment cost is the resultant of all the values available at the time of investment decision date.</p> <p>it is to be noted that the project has been fully commissioned and project developer supplied the corporate tax declaration/31/ of the SPV company. The tax declaration provided is after the plant has been fully commissioned in February 2018.</p> <p>However, the total investment cost has also been analyzed by reducing the total cost by 15% and the equity IRR remains at 13.08%. Hence well within the benchmark, the details</p>

<sup>14</sup> EPIAS database, <https://rapor.epias.com.tr/rapor/xhtml/ptfSmfListeleme.xhtml>

			are covered under the sensitivity analysis. The various cost heads were also cross verified against another solar power project registered under Gold Standard; GS7800. The per MW cost of the concerned project (Astronergy 3) computes to 1.13 million dollars per MW, the cost was also compared to the registered GS solar project where per MW cost was 1 million dollars. The per MW cost of the concerned project activity is much higher than the registered GS project implemented by the same entity. Hence the values considered were found conservative and acceptable.	
	Operational Costs	~111 <sup>15</sup>	1000 \$	The estimated operational and maintenance costs for solar plants in Turkey in comparison to the minimum wage prevailing in the country. So, the operational cost is based on the minimum wage prevailing in the host country. The assessment team also applied sensitivity upto a 50% reduction in the operation cost at which the post-tax equity IRR is still 12.01%. therefore it can be concluded that the benchmark would not be breached even if the O&M cost in actual is reduced by 50%.
	Feed in Tariiff	13.3 <sup>16</sup>	\$cents/kWh	Electricity tariff of 13.3 \$ Cents/kWh for the first 10 years of operation and 4.58 \$ Cents/kWh for the next 10 years. The value used was confirmed by studying Law on the Use of Renewable Energy Resources for the Purpose of Generating electrical energy <sup>17</sup> for feed-in tariffs for electricity generated by solar parks. The estimation of 4.58 \$ Cents/kWh has been based on the real selling prices of electric energy for the period 2015 – 2016 published on the website of the Turkish Transparency Platform/49/ operated by Energy Markets Management Company (EPIAS). The verification team independently studied the electricity tariff from the year 2011 to 2017 and observed that average yearly electricity price from 2011 (which is the earliest data available) to 2017 (investment decision time) has dropped from 80.74 USD/MWh to 46.33 USD/MWh. Based on the price trends in the country the
	Market price after 10 years	4.58 <sup>18</sup>	\$cents/kWh	

<sup>15</sup> Operational costs calculated in “Operational Costs” tab in IRR Excel Spreadsheet

<sup>16</sup> Feed in tariff <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5346&MevzuatTur=1&MevzuatTertip=5>

<sup>17</sup> Feed in tariff <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5346&MevzuatTur=1&MevzuatTertip=5>

<sup>18</sup> Feed in tariff after fixed value has ended after 10 years, calculated in “Electricity Price” tab in IRR Excel Spreadsheet

			assumption taken was found reasonable. The variation in tariff has also been covered under sensitivity analysis.
Corporate Tax	20 <sup>19</sup>	%	it is to be noted that the project has been fully commissioned and project developer supplied the corporate tax declaration/31/ of the SPV company. The tax declaration provided is after the plant has been fully commissioned in February 2018.
Transmission loss factor <sup>20</sup>	2.08	%	The value used in the investment analysis could be confirmed from the electricity Statistics, III-Electric Energy Generation-Consumption-Losses 2017 published by TEIAS <sup>21</sup> . The document lists down the observed percentage of the transmission losses from year 1993 to 2018. The value for the year 2016 is 2.08% and the average value over 26 years has been observed as 2.4%. The value applied could be confirmed from a data available at the Turkish Electricity Transmission Corporation open sources. Hence. the value used was found acceptable by the team. The transmission losses are to be incurred by the project activity albeit these losses represent the losses that would occur after the said electricity/energy is supplied to grid. Therefore, for the purpose of emission reductions, the net supplied to the grid at metering point has been considered. However, for revenue purposes, the transmission losses have been subtracted from annual income.
Depreciation for solar panels	10	years	Depreciation period for solar panel and equipment has been taken as 10 years whereas for construction is 40 years based on the assumptions taken by the project developer. The depreciation value has been added back to the annual cash flow which has been found acceptable based on the inputs from the local expert which is an accepted practice in the host country Turkey.
Depreciation for construction	40	Years	
Equity	100 <sup>22</sup>	%	No loan agreement is present.
<b>Main financial parameters used for investment analysis (Osmaniye, Yaveriye)</b>			
Item	Value	Unit	Means of verification

<sup>19</sup> Corporate tax percentage based on years: <https://www.pwc.com.tr/kurumlar-vergisi-orani>

<sup>20</sup> TEIAS statistics, <https://webapi.teias.gov.tr/file/512cbf1d-0ca3-4492-b901-3722c7b682f7?download>

<sup>21</sup> TEIAS statistics, <https://webapi.teias.gov.tr/file/512cbf1d-0ca3-4492-b901-3722c7b682f7?download>

<sup>22</sup> No bank loans used during investment decision period



	Installed Capacity	5	MW	<p>The project capacity has been cross checked from the provisional acceptance which are issued by the Ministry of Energy and Natural Resources issued at the time of commissioning /12/.</p> <p>The project capacity was also cross verified from the Connection Agreement /15/ between PO &amp; users. Further, the same has been confirmed during remote audit by the project verification team and found to be correct.</p>
	Grid Connected output	8,605	MWh	<p>Details on the amount of electricity supplied to the grid was verified from calculated based on the EPDK (EMRA) guidelines. The value has been sourced from the inspection reports (dated 08/06/2016 for Adana and dated 08/06/2016 for Osmaniye, which are before the investment decision date) for each plant by TÜV NORD (Hangzhou) Co., Ltd. hence is in accordance with para 3(b) of "Guidelines for the reporting and verification of Plant load factors" EB 48 Annex 11. The PLF value was therefore accepted by the assessment team.</p>
	Currency Rate	3.6251	USD / TRY	<p>Central Bank of Republic of Türkiye  <a href="https://www.tcmb.gov.tr/kurlar/kurlar_tr.html">https://www.tcmb.gov.tr/kurlar/kurlar_tr.html</a></p>
	Capital Costs	~5,796	1000 \$	<p>The total investment cost is the resultant of all the values available at the time of investment decision date.</p> <p>it is to be noted that the project has been fully commissioned and project developer supplied the corporate tax declaration/31/ of the SPV company. The tax declaration provided is after the plant has been fully commissioned in February 2018.</p> <p>However, the total investment cost has also been analyzed by reducing the total cost by 15% and the equity IRR remains at 13.08%. Hence well within the benchmark, the details are covered under the sensitivity analysis.</p> <p>The various cost heads were also cross verified against another solar power project registered under Gold Standard; GS7800. The per MW cost of the concerned project (Astronergy 3) computes to 1.15 million dollars per MW, the cost was also compared to the registered GS solar project where per MW cost was 1 million dollars. The per MW cost of the concerned project activity is much higher than the registered GS project implemented by the same</p>

			entity. Hence the values considered were found conservative and acceptable.
Operational Costs	~142 <sup>23</sup>	1000 \$	The estimated operational and maintenance costs for solar plants in Turkey in comparison to the minimum wage prevailing in the country. So, the operational cost is based on the minimum wage prevailing in the host country. The assessment team also applied sensitivity up to a 50% reduction in the operation cost at which the post-tax equity IRR is still 12.24%. therefore, it can be concluded that the benchmark would not be breached even if the O&M cost in actual is reduced by 50%.
Feed in Tariiff	13.3 <sup>24</sup>	\$cents/kWh	Electricity tariff of 13.3 \$ Cents/kWh for the first 10 years of operation and 4.58 \$ Cents/kWh for the next 10 years. The value used was confirmed by studying Law on the Use of Renewable Energy Resources for the Purpose of Generating electrical energy <sup>25</sup> for feed-in tariffs for electricity generated by solar parks. The estimation of 4.58 \$ Cents/kWh has been based on the real selling prices of electric energy for the period 2015 – 2016 published on the website of the Turkish Transparency Platform operated by Energy Markets Management Company (EPIAS). The verification team independently studied the electricity tariff from the year 2011 to 2017 and observed that average yearly electricity price from 2011 (which is the earliest data available) to 2017 (investment decision time) has dropped from 80.74 USD/MWh to 46.33 USD/MWh. Based on the price trends in the country the assumption taken was found reasonable. The variation in tariff has also been covered under sensitivity analysis.
Market price after 10 years	4.58 <sup>26</sup>	\$cents/kWh	
Corporate Tax	20 <sup>27</sup>	%	it is to be noted that the project has been fully commissioned and project developer supplied the corporate tax declaration/31/ of the SPV company. The tax declaration provided is after the plant has been fully commissioned in February 2018.
Transmission	2.09	%	The value used in the investment analysis could

<sup>23</sup> Operational costs calculated in “Operational Costs” tab in IRR Excel Spreadsheet

<sup>24</sup> Feed in tariff <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5346&MevzuatTur=1&MevzuatTertip=5>

<sup>25</sup> Feed in tariff <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5346&MevzuatTur=1&MevzuatTertip=5>

<sup>26</sup> Feed in tariff after fixed value has ended after 10 years, calculated in “Electricity Price” tab in IRR Excel Spreadsheet

<sup>27</sup> Corporate tax percentage based on years: <https://www.pwc.com.tr/kurumlar-vergisi-orani>

	loss factor <sup>28</sup>			be confirmed from the electricity Statistics, III-Electric Energy Generation-Consumption-Losses 2017 published by TEIAS <sup>29</sup> . The document lists down the observed percentage of the transmission losses from year 1993 to 2018. The value for the year 2016 is 2.09% and the average value over 26 years has been observed as 2.4%. The value applied could be confirmed from a data available at the Turkish Electricity Transmission Corporation open sources. Hence, the value used was found acceptable by the team. The transmission losses are to be incurred by the project activity albeit these losses represent the losses that would occur after the said electricity/energy is supplied to grid. Therefore, for the purpose of emission reductions, the net supplied to the grid at metering point has been considered. However, for revenue purposes, the transmission losses have been subtracted from annual income.
	Depreciation for solar panels	10	years	Depreciation period for solar and equipment has been taken as 10 years whereas for construction is 40 years based on the assumptions taken by the project developer. The depreciation value has been added back to the annual cash flow which has been found acceptable based on the inputs from the local expert which is an accepted practice in the host country Turkey.
	Depreciation for construction	40	Years	
	Equity	100 <sup>30</sup>	%	No loan agreement is present.
<p><b>Financial calculation and conclusion</b></p> <p>The post-tax equity IRR calculations were provided in a spreadsheet. The calculation was verified and found to be correct by project verification team; as well as the assumptions used in the calculation were deemed to be correct. The Adana Çevretepe plants have an Internal Rate of Return (IRR) of 9.62%, computed from the provided parameters, excluding any consideration for carbon revenue. Similarly, the Osmaniye Yaveriye plants exhibit an Internal Rate of Return (IRR) of 10.66%, calculated based on the same parameters, also excluding carbon revenue. compared to the benchmark 14.39% is not financially attractive.</p> <p><b>Sub-step 2d: Sensitivity analysis</b></p> <p>A variation of ±15% in the critical assumptions (i.e. total investment, annual O&amp;M cost, and power sales revenues) was considered and presented by the PO however the assessment has been performed at ±15% variation inline to the tool.</p>				

<sup>28</sup> TEIAS statistics, <https://webapi.teias.gov.tr/file/512cbf1d-0ca3-4492-b901-3722c7b682f7?download>

<sup>29</sup> TEIAS statistics, <https://webapi.teias.gov.tr/file/512cbf1d-0ca3-4492-b901-3722c7b682f7?download>

<sup>30</sup> No bank loans used during investment decision period

**Sensitivity analysis;****Sensitivity analysis for Adana, Çevretepe Plants (without carbon revenue)**

%Fluctuation	-15	-10	-5	0	5	10	15
Investment Cost	13.08 %	11.82 %	10.67 %	9.62 %	8.65%	7.75%	6.92%
Operating Cost	9.69%	9.67%	9.64%	9.62 %	9.59%	9.57%	9.55%
Electricity Income	6.67%	7.65%	8.64%	9.62 %	10.59 %	11.57 %	12.53 %
Electricity Generation	6.10%	7.32%	8.49%	9.62 %	10.72 %	11.79 %	12.83 %

**Sensitivity analysis for Osmaniye, Yaveriye Plants (without carbon revenue)**

%Fluctuation	-15	-10	-5	0	5	10	15
Investment Cost	14.18 %	12.89 %	11.72 %	10.66 %	9.67%	8.77%	7.93%
Operating Cost	10.71 %	10.69 %	10.67 %	10.66 %	10.64 %	10.62 %	10.60 %
Electricity Income	7.82%	8.76%	9.71%	10.66 %	11.60 %	12.54 %	13.48 %
Electricity Generation	7.33%	8.47%	9.58%	10.66 %	11.71 %	12.74 %	13.75 %

The likelihood of a project activity surpassing the benchmark IRR, in order to ensure the adequacy of the assumptions used in the investment analysis was performed inline to tool 27.

**Outcome of Step 2:**

The investment and sensitivity analysis shows that the ACC revenues will improve the financial indicators of the Project remarkably. Considering that figures above are based on a higher price rather than the government guaranteed floor price, optimistic estimations for yearly generation and that those figures do not reflect the risk for investment, role of carbon income is a most significant number to enable the project to proceed.

The assessment of the variation is as follows,

Parameter	Variation	Probability of the situation
Investment cost	+/-15	The total investment cost has been subjected to sensitivity and it can be observed from the IRR sheet that the benchmark is not breached even at 15% lower costs. Moreover, the project is implemented and project developer supplied the corporate tax declaration/43/ of the SPV company. Hence the likelihood of the investment cost reducing is unlikely.
Operating cost	+/-15	The assessment team also applied sensitivity up to a 50% reduction in the operation cost at which the post-tax equity IRR is still 12.24%. therefore, it can be concluded that the benchmark would not be breached even if the O&M cost in actual is reduced by 50%.
Electricity sales revenue	+/-15	According to local regulations, electricity price is determined daily according to Market Financial Settlement Centre (MFSC) as defined in the regulations and there exists three

		tariffs during day, peak and night hours. Thermal power plants and HEPPs with storage facilities have flexibility to schedule their generation at peak hours when the tariff is high. However, solar power plants do not have storage facility therefore may not be able to benefit from high prices realized at when demand is high. According to MFSC figures, electricity tariff fluctuated between 4.5 \$c/kWh and 4.9 \$c/kWh between 2015 and 2017. The value does not provide any guarantee about the actual selling price as the control on generation period and tariff is limited and it may not be possible to generate and sell electricity during peak tariff periods. Also, considering that fluctuation in solar radiation exist and fact that a part of the electricity can be sold through bilateral agreements to free consumers with a discount rate over market price, guarantee price has been taken as reference in investment analysis which also provides input for evaluation of financing institutions. An increase in the electricity tariff causes higher IRR as 12.83% (Adana) and 13.75% (Osmaniye), which is very unlikely.
	+/-15	An increase in electricity generation by 15% causes higher IRR as 12.83% (Adana) and 13.75% (Osmaniye). However, the total electricity generation estimated in the IRR is 13,518 MWh/year total, the actual generation has been as follows: 12,257 MWh (2019), 12,308 MWh (2020), 12,852 MWh (2021). Therefore, breaching of the benchmark is not likely at all.
The sensitivity analysis results were found to be appropriate and was found to be calculated in-line with the tool as verified from the IRR sheet.		
<b>Findings</b>	CAR 04 and CAR 06 was raised and closed successfully.	
<b>Conclusion</b>	Based on the information provided in the PSF and guidance by GCC Project Standard version 03.1/2/ and clarification 02/23/ from GCC project verification team confirmed the project activity is deemed additional without any further analysis of the other barriers.	

### D.3.6 Estimation of emission reductions or net anthropogenic removal

<b>Means of Project Verification</b>	As per small scale methodology “Grid connected renewable electricity generation--- Version 18.0”, paragraph 43 emission reduction is estimated as difference between the baseline emission and project emission after factoring into leakage. $ER_y = BE_y - PE_y - LE_y$ As the project activity is a solar project, there won't be any leakage emissions from the project activity. Hence, $LE_y = 0$  Therefore, $ER_y = BE_y - PE_y$  Where:		
	$ER_y$	=	Emission reductions in year y (t CO <sub>2</sub> e/yr)
	$BE_y$	=	Baseline emissions in year y (t CO <sub>2</sub> /yr)

PE <sub>y</sub>	=	Project Emission in year y (t CO <sub>2</sub> e/yr)
LE <sub>y</sub>	=	Leakage Emission in year y (t CO <sub>2</sub> e/yr)
<p>As per small scale methodology “AMS-I.D- Grid connected renewable electricity generation---Version 18.0”, paragraph 22, Baseline Emissions include only CO<sub>2</sub> emissions from electricity generation in in power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing gridconnected power plants and the addition of new grid- connected power plants. The baseline emissions are to be calculated as follows:  <math>BE_y = EG_{PJ,y} \times EF_{grid,CM,y}</math>                      Where</p>		
BE <sub>y</sub>	=	Baseline emissions in year y (t CO <sub>2</sub> /yr)
EG <sub>PJ,y</sub>	=	Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the GCC project activity in year y (MWh/yr)
EF <sub>grid,CM,y</sub>	=	Combined margin CO <sub>2</sub> emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system Version 7.0” (t CO <sub>2</sub> /MWh)
<p>AMS-I.D- Grid connected renewable electricity generation---Version 18.0”,                      If the project activity is the installation of a Greenfield power plant, then:  <math>EG_{PJ,y} = EG_{facility,y}</math></p>		
EG <sub>PJ,y</sub>	=	Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the GCC project activity in year y (MWh/yr)
EG <sub>facility,y</sub>	=	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr)
<p>As per methodology, combined grid emission factor is estimated as per the “Tool to calculate the emission factor for an electricity system” version 07 is presented below: “Türkiye National Network Emission Factor Data Sheet32” published by Ministry of Energy and Natural Resources outlines Operating, Build and Combined Margin Emission Factors for National Grid. The Ministry has calculated the factors as using the “Tool to calculate the emission factor for an electricity system”. Since it’s the latest available data, published by the ministry, these factors have been considered. Approach outlined under the Tool to calculate the emission factor for an electricity system, is being used for the purpose of estimation.</p> <p>Calculation of the Operating Margin Emission Factor:                      For OM factor calculation, chronological order of power generation plants from TEİAŞ Load Dispatch Department with, fuel types, electricity generation for the calculated year were used as input data. By using all the data which were mentioned above,  <b>EF<sub>grid,OMsimple,y</sub> = 0.7424 tCO<sub>2</sub>/MWh</b></p> <p>Calculation of the Build Margin Emission Factor:                      For BM factor calculation, Chronological order of power generation plants from TEİAŞ Load Dispatch Department with commissioning dates, plant names, fuel</p>		



	<p>types, installed power values, electricity generation for the calculated year were used as input data.</p> <p><b>EFgrid,BM,y = 0.3680 tCO2/MWh</b></p> <p>Calculating of the Combined Margin Emission Factor</p> <p>The combined margin emission factor is calculated by using weighted average CM as per tool formula below:</p> $EF_{grid,CM,y} = EF_{grid,OM,y} * w_{OM} + EF_{grid,BM,y} * w_{BM}$ <p>Where:</p> <table border="1"> <tr> <td>EFgrid,BM,y</td> <td>=</td> <td>Build margin CO2 emission factor in year y (tCO2/MWh)</td> </tr> <tr> <td>EFgrid,OM,y</td> <td>=</td> <td>Operating margin CO2 emission factor in year y (tCO2/MWh)</td> </tr> <tr> <td>wOM</td> <td>=</td> <td>Weighting of operating margin emissions factor (%)</td> </tr> <tr> <td>wBM</td> <td>=</td> <td>Weighting of build margin emissions factor (%)</td> </tr> </table> <p>According to the Tool for power generation project activities other than wind and solar; wOM = 0.75 and wBM = 0.25</p> <p>Then:</p> $EF_{grid,CM,y} = 0.7424 \text{ tCO2/MWh} * 0.75 + 0.3680 \text{ tCO2/MWh} * 0.25 = 0.6488 \text{ tCO2/MWh}$ <p>Project Emissions</p> <p>As per para 39 of applied methodology/9/, “For most renewable energy project activities, PEy = 0” Since, the project activity is a solar power plant, no project emissions has been considered which is found to be acceptable.</p> <p>Hence, PEy = 0.</p> <p>The emission reduction calculation for 1st year is provided below:</p> $ERy = BEy - PEy - LEy$ <p>Since, PEy and LEy is zero</p> $ERy = BEy$ <p>The baseline emissions are calculated as: BEy = EGfacility × EFgrid,CM,y = 13,518 (MWh) × 0.6488 tCO2/MWh = 8,879 tCO2e per annum.</p> <p>Hence ERy = 8,879 tCO2e</p> <p>The emission reduction calculation was assessed by the verification team against the requirements of the applied methodology/9/ and found to be in compliance with the same.</p> <p>The ex-ante estimates given in the PSF/6/ are conservative and all the input parameters have been separately validated.</p>	EFgrid,BM,y	=	Build margin CO2 emission factor in year y (tCO2/MWh)	EFgrid,OM,y	=	Operating margin CO2 emission factor in year y (tCO2/MWh)	wOM	=	Weighting of operating margin emissions factor (%)	wBM	=	Weighting of build margin emissions factor (%)
EFgrid,BM,y	=	Build margin CO2 emission factor in year y (tCO2/MWh)											
EFgrid,OM,y	=	Operating margin CO2 emission factor in year y (tCO2/MWh)											
wOM	=	Weighting of operating margin emissions factor (%)											
wBM	=	Weighting of build margin emissions factor (%)											
<b>Findings</b>	CAR 07 is raised and closed successfully.												
<b>Conclusion</b>	<p>The project Verification team confirm that the algorithms and formulae proposed to calculate project emissions, baseline emissions, leakage and emission reductions in the PSF is in line with the requirements of the selected methodology AMS I.D, version 18.0</p> <p>For ex-ante calculation, the assessment team confirms that</p> <ul style="list-style-type: none"> <li>• All assumptions and data used by the project participants are listed in the PSF including their references and sources.</li> <li>• All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PSF</li> <li>• All values used in the PSF/26/ are considered reasonable in the context of the proposed project activity</li> <li>• The baseline methodology and the applicable tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;</li> </ul>												

	<ul style="list-style-type: none"> <li>• All estimates of the emissions can be replicated using the data and parameter values provided in the PSF/26/.</li> <li>• All calculations are complete and without any omissions.</li> </ul>
--	---

### D.3.7 Monitoring plan

<b>Means of Project Verification</b>	<p>The monitoring plan described in the PSF is in compliance with the applied methodology AMS-I. D Version 18.0. The monitoring plan has been found to be in compliance with the requirements of the applied methodology for calculation of GHG emission reductions, GCC Environment and-Social-Safeguards-Standardv2.0/4/ and Project-Sustainability-Standard-v2.1/5/. The assessment team has reviewed all the parameters in the monitoring plan against the requirements of the applied methodology and confirmed that monitoring parameters are applied in line with the requirement of the methodology and relevant in the context of the program. The procedures have been reviewed by the assessment team through document review and interviews with the respective monitoring personnel. The information provided has allowed the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the project owner. Specifically, these points include the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the project. Therefore, the project owner will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified</p> <p>There are no set of rules and regulations for the installation of the solar power plant in Turkey. The project was installed on the non-vegetation land which not a part of forest as well. Hence, no negative impact has happened to the natural purposes, such as wildlife habitat, open space, or vegetation cover due to the implementation of this solar project activity.</p> <p>The parameters that are fixed ex-ante are:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Parameter</th> <th style="text-align: left;">Value</th> <th style="text-align: left;">Source</th> </tr> </thead> <tbody> <tr> <td>Build Margin Emission factor (<math>EF_{grid, BM, y}</math>)</td> <td>0.3680 tCO<sub>2</sub>/MWh</td> <td>Based on latest CO<sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources published on 20/09/2022<sup>31</sup>.</td> </tr> <tr> <td>Operating Margin emission factor (<math>EF_{grid, OM, y}</math>)</td> <td>0.7424 tCO<sub>2</sub>/MWh</td> <td>Based on latest CO<sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources published on 20/09/2022<sup>32</sup>.</td> </tr> <tr> <td>Combined Margin CO<sub>2</sub> emission factor (<math>EF_{CO_2}</math>)</td> <td>0.6488 tCO<sub>2</sub>/MWh</td> <td>Based on latest CO<sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources</td> </tr> </tbody> </table>	Parameter	Value	Source	Build Margin Emission factor ( $EF_{grid, BM, y}$ )	0.3680 tCO <sub>2</sub> /MWh	Based on latest CO <sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources published on 20/09/2022 <sup>31</sup> .	Operating Margin emission factor ( $EF_{grid, OM, y}$ )	0.7424 tCO <sub>2</sub> /MWh	Based on latest CO <sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources published on 20/09/2022 <sup>32</sup> .	Combined Margin CO <sub>2</sub> emission factor ( $EF_{CO_2}$ )	0.6488 tCO <sub>2</sub> /MWh	Based on latest CO <sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources
Parameter	Value	Source											
Build Margin Emission factor ( $EF_{grid, BM, y}$ )	0.3680 tCO <sub>2</sub> /MWh	Based on latest CO <sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources published on 20/09/2022 <sup>31</sup> .											
Operating Margin emission factor ( $EF_{grid, OM, y}$ )	0.7424 tCO <sub>2</sub> /MWh	Based on latest CO <sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources published on 20/09/2022 <sup>32</sup> .											
Combined Margin CO <sub>2</sub> emission factor ( $EF_{CO_2}$ )	0.6488 tCO <sub>2</sub> /MWh	Based on latest CO <sub>2</sub> Baseline Database by Ministry of Energy and Natural Resources											

31

<https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>

32

<https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>

		published on 20/09/2022 <sup>33</sup> .
The parameters that are to be monitored ex-post are:		
1	EG <sub>PJ, facility, y</sub> (SDG-7)	<p><b>Quantity of net electricity displaced in year y in MWh/y</b></p> <p>The monitoring parameter will be continuously monitored by means of energy meter which is located delivery point of individual project plant. The monitoring parameter will be recorded for emission reduction on monthly basis. Annually 13,518 MWh is produced Energy meters of 0.5s are used for measuring energy and every 10 years calibration is done. Records are taken via remote meter reading system. The values are crosscheck with the meter records.</p> <p>Net Electricity = Export - Import</p> <p>Electricity generation data is recorded by two electricity meters. According to meter reading, the invoices of the electricity are provided. The quantity of electricity supplied by the project activity to the grid are measured. Internal consumption from electricity is subtracted from the delivered electricity to calculate net generation.</p> <p>Data will be archived in paper &amp; electronically for a period of 2 years beyond the end of crediting period or of the last issuance of credits for this project activity, whichever occurs later.</p>
2	SDG 13- Urgent action to combat climate change and its impacts	The parameter is the emission reductions achieved per year and is measured in tCO <sub>2</sub> /Year. This is estimated from ER sheet and results are obtained from ER sheet. This is measured yearly. The baseline emissions are estimated as the product of electrical energy generated and the grid emission factor. Since project emission and leakage is nil the baseline emission is equivalent to emission reduction from the project activity. Data will be archived in paper & electronically for a period of 2 years beyond the end of crediting period or of the last issuance of credits for this project activity, whichever occurs later.
3	Long-term jobs (> 1 year) created/ lost	This parameter is to provide long term employment due to the implementation of the project activity A minimum of 3 people will be employed during the crediting period. This parameter is measured yearly and attendance register and the salary slips are used for the monitoring.
4	Solid waste Pollution from	As per monitoring plan, Solid waste Pollution from Hazardous wastes like transformer oil disposal / replacement or any other oil hazardous from the project activity will be disposed as per guidance given in the Regulation on Waste Management <sup>34</sup> which is the applicable

<sup>33</sup>

<https://enerji.gov.tr/Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>

<sup>34</sup> Regulation on Waste Management:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5>

		Hazardous wastes	laws/regulations in the host country. This will be monitored by means of the records by the project owner in the installation site as and when there is a need of disposal/replacement of transformer oil. This data is being continuously monitored since commissioning of the project activity. This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
	5	Solid waste Pollution from E-wastes	As per monitoring plan E-waste generated from the project activity shall be stored and disposed-off as per the guidance of E-waste management and Handling Rules in the host country. The Regulation on Electrical and Electronic Waste Control <sup>35</sup> , which is the applicable laws/regulations in the host country. As per the guidance the E-waste generated from the project activity will be collected by the dealer of authorized producer or dismantler or recycler or through the designated take back service provider of the producer to authorized dismantler or recycler. This will be continuously monitored by means of the records by the project owner in the all the installation sites. This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
	6	Solid waste Pollution from end-of-life products/equipment	The parameter to reduce the environment impact identified with the generation of solid waste at the end-of-life-products/equipment. The project owner will dispose the recyclable material to the recycling vendor and dispose the rest of materials to the third-party licensed vendors in compliance with the prevailing rules at the end of life time. This will be monitored continuously and waste will disposed/recycled as and when generated. This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
	7	Solid waste Pollution from Batteries	The parameter to reduce the environment impact identified with the generation of solid waste pollution from batteries. The project currently operates without utilizing any batteries. Nevertheless, if there are plans to incorporate batteries in the future, this parameter must be closely monitored according to national laws and regulations such as Regulation on Waste Management. This will be monitored continuously and waste will disposed/recycled as and when generated. This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.

<sup>35</sup> <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16159&MevzuatTur=7&MevzuatTertip=5>

	8	Reducing / increasing accidents	The purpose of the parameter is to reduce the accidents via providing EHS training. There is no associated environment /social/ SDG risk. Total number of persons trained on operational and safety protocols will be assessed from training record. The parameter is measured yearly. The Law on Occupational Health and Safety (No. 28648) published in the Official Gazette on 15/05/2013 and its guidelines are followed and is monitored via EHS trainings provided.
	9	SDG 8- Average earning of females and male employees engaged in the project and segregated by age and persons with disabilities	The parameter ensure that average hourly earnings of employees, by sex, age, occupation, and persons with disabilities. The project activity achieve minimum of 10 full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. The data will be based on the Employment Records and Organization Policies. This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
<b>Findings</b>	CAR 05 is raised and closed successfully.		
<b>Conclusion</b>	<p>The project verification team confirms that,</p> <ul style="list-style-type: none"> <li>• The verification team confirms that the monitoring plan based on the approved monitoring methodology is correctly applied to the PSF.</li> <li>• The monitoring plan will give opportunity for real measurements of achieved emission reductions. The project verification team considers that monitoring arrangements described in the monitoring plan is feasible within the project design.</li> <li>• The means of implementation of the monitoring plan are sufficient to ensure that the emission reduction and other voluntary labels achieved from the project activity is verifiable and thereby satisfying the requirement of Verification Standard.</li> <li>• The monitoring plan will give opportunity for real measurements of achieved emission reductions. There are no host country requirements pertaining to monitoring of any sustainable development indicators. Therefore, there are no such parameters identified in the PSF.</li> </ul>		

#### D.4. Start date, crediting period and duration

<b>Means of Project Verification</b>	<p>The Start date of the project activity is 23/11/2017. This is the earliest commissioning date among all the solar projects included in the bundle. The Commissioning certificates/13/ of the installation of the project activity has been verified and confirmed start date as per PSF is found correct and acceptable to verification team.</p> <p>A crediting period of a maximum length of 10 years has been selected by project owner. The start date of the crediting period is stated as 23/11/2017, which is appropriate as per paragraph 40(b) of the Project Standard version 03.1.</p> <p>The expected lifetime of the project activity is 25 years which is verified by the technical details/14/ of the PV panels and confirmed based on the sectoral expertise.</p>
<b>Findings</b>	No finding is raised in this context.

<b>Conclusion</b>	The start dates and the crediting period type & length have been verified and found to be in accordance with GCC project standard version 03.1
-------------------	--

## D.5. Environmental impacts

<b>Means of Project Verification</b>	<p>The project activity does not involve any major construction activity. It primarily requires the installation of the solar PV panels, inverters, and interface with National Grid of Türkiye by setting up HT transmission lines and installation of other accessories.</p> <p>The plants within the collection have received approval for their environmental impact assessments that fall outside the defined scope, with dates specified in Table 1 of this document. Consequently, since no official environmental impact assessment has been conducted, this particular section does not apply.</p> <p>These projects, constituting solar power plants of less than 1 MW each, fall beyond the scope outlined for environmental impact assessments and are excluded from the list of plants requiring an EIA assessment. According to Regulation No: 39647 on Environmental Impact Assessment, Annex-1, which delineates the projects subject to environmental impact assessment, solar projects under 1 MW are not included. Therefore, solar projects with a capacity under 1 MW do not necessitate an EIA. As there were no official environmental impact assessments conducted, this section remains irrelevant.</p>	
	<b>Project</b>	<b>EIA Approval</b>
	Yave riye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
	Yave riye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
	Yave riye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
	Yave riye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
	Yave riye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ
	Çevr etep e 1	SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.
	Çevr etep e 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.
	Çevr etep e 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.
<b>Findings</b>	No finding is raised.	
<b>Conclusion</b>	In the opinion of the assessment team, in the project activity environmental impacts is not significant as per host country legislation. Further analysis not required in this context.	



#### D.6. Local stakeholder consultation

<b>Means of Project Verification</b>	LSC was conducted between 04/2022 to 06/2022 in Erzincan and Osmaniye Provinces via information sheets provided to the local stakeholders by the project employees in person. Information about the project and the GCC Standard was provided verbally as well. People with different occupations were contacted in the process. The consultation was performed to meet the requirement of the GCC since there are no Host country requirement to conduct consultation for such projects. The verification team confirms that the local stakeholder consultation process was performed by the project owner before the submission of the project activity for global stakeholder consultation. The objective of the local stakeholder consultation carried out to comply with GCC requirements and identify the comments/concerns that might be required to be addressed by project owner. The stakeholder consultation responses/19/ were received by the assessment team. The verification team confirmed by review of the stakeholder responses that the summary of stakeholders' comments reported in PSF was accurate. There was no negative feedback received. The list of the relevant stakeholders who were requested for feedback is also provided in the PSF.
<b>Findings</b>	No finding is raised.
<b>Conclusion</b>	The project verification team confirms that the summary of stakeholders' comments reported in PSF is complete. In the opinion of the team, the local stakeholder consultation process was adequately conducted by the project participant considering the ongoing pandemic to receive unbiased comments from the all the stakeholders. The project verification team confirms that the local stakeholder consultation process performed for the project activity fulfils the requirements and all the LSC documents /18/ are verified and found acceptable.

#### D.7. Approval and Authorization- Host Country Clearance

<b>Means of Project Verification</b>	As per the GCC program guidelines the submission of HCA on double counting is required by CORSIA labelled project after 31/12/2020 as verified under section D.13 of this report. The project Owner has applied for CORSIA eligibility. Paragraph 33(d) of GCC Program Process requires Project Owner to submit the HCLOA together with the project documentation required for submission of request for registration of the project activity can be displayed as having market eligibility flag (C+) on the GCC Project website and GCC registry. However, Para 16 of Standard on Avoidance of Double Counting, version 1.0 also allows project owners to submit the HCLOA at the time of issuance stage provided they make a declaration under the PSF. For carbon credits issued during 01/01/2016 to 31/12/2020 the HC approval is not required. Thus, for this project activity Host country clearance is not required at the time of project verification.
<b>Findings</b>	FAR 01 raised.
<b>Conclusion</b>	The project verification team confirms that no Host Country approval is required by the CORSIA labelled project activity and the HCA will be required during the first or subsequent verification, when the issuance of carbon credit is considered beyond 1 <sup>st</sup> Jan 2021.

#### D.8. Project Owner- Identification and communication

<b>Means of Project Verification</b>	The information and contact details of the project owner and project owners themselves has been appropriately incorporated in Appendix 1 of the PSF which was checked. The Nomination letters and Authorization letters signed by the project owners has been verified and also the company registration documents and project
--------------------------------------	--

	owner valid passports have been checked. All information was consistent between these documents.		
	Project	Project Owner	Location
	Yav eriye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	Osmaniye Province / Merkez District / Sakızgediği Neighborhood
	Yav eriye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	
	Yav eriye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	
	Yav eriye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	
	Yav eriye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ	
	Çevr etep e 1	SILANUR ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	
	Çevr etep e 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	
	Çevr etep e 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	
08 nos. of solar project have 8 nos. of legal owners as listed in above table which is verified from the LOA/15/, Power Purchase agreements/14/ and provisional acceptance letters/12/. All information were consistent between in these documents and acceptable to the project verification team.			
<b>Findings</b>	CAR 08 is raised and closed successfully.		
<b>Conclusion</b>	The project verification team confirm that the information of the project owners has been appended as per the template and the information regarding of the project owner stated in the PSF/26/ and authorization letter/13/ were found to be consistent.		

#### D.9. Global stakeholder consultation

<b>Means of Project Verification</b>	The PSF was made available through the dedicated interface on the GCC website.  The duration of the period for submission of comments for the global stakeholder consultation was from 29/11/2022 to 13/12/2022 /42/.  There were no comments received during this period
<b>Findings</b>	No findings raised.
<b>Conclusion</b>	The PSF had been made public for receiving stakeholder feedback and no comments were raised during the GSC process

#### D.10. Environmental Safeguards (E+)

<b>Means of Project Verification</b>	The Project owner has chosen to apply for the Environmental No-net-harm Label (E+). The assessment of the impact of the project activity on the environmental safeguards has been carried out in section E.1 of the PSF. Out of all the safeguards
--------------------------------------	--

	<p>no risks were identified to the environment due to the project implementation and operation. And the following have been indicated as positive impacts</p> <p><b>Positive Impacts identified as ‘Harmless’ as regulatory complied OR mitigated:</b></p> <ul style="list-style-type: none"> <li>i. Environmental – Air - CO<sub>2</sub> emissions: The project activity being renewable power generation avoids CO<sub>2</sub> emissions that would have occurred in baseline scenario due to the electricity generation in thermal power plants. The impacts is being monitored through parameter ‘CO<sub>2</sub> emissions’ and is verified under section D.3.7 of this report.</li> <li>ii. Solid waste Pollution from Hazardous wastes: This is covered to monitor impacts from disposal transformer oil. The impacts are being monitored through parameters ‘Project Waste’ and discussed under section D.3.7 of this report. Proper mitigation action has been implemented for waste management/17/.</li> <li>iii. Solid waste Pollution from E- waste: - E-Waste shall be generated in the form of damaged electronic and communication equipment. The generated waste shall be discarded in accordance with host country regulation. The parameter is being monitored as ‘Project Waste’ and validated under section D.3.7 of this report. Proper mitigation action has been implemented for waste management/17/.</li> <li>iv. Solid waste Pollution from Batteries: - Waste generated from Batteries shall be discarded in accordance with host country regulation. The parameter is being monitored as ‘Project Waste’ and validated under section D.3.7 of this report. Proper mitigation action has been implemented for waste management/17/.</li> <li>v. Solid waste Pollution from end-of-life products/ equipment: - Waste generated after end of lifecycle of a product shall be discarded in accordance with host country regulation. The parameter is being monitored as ‘Project Waste’ and validated under section D.3.7 of this report. Proper mitigation action has been implemented for waste management/17/.</li> </ul> <p><b>Negative Impacts:</b> No negative impacts identified or verified for the project activity, which cannot be mitigated.</p> <p>An appropriate monitoring plan has been put in place for the elements marked positive. The detailed matrix has been included in appendix 5 of the report.</p>
<b>Findings</b>	No finding is raised.
<b>Conclusion</b>	Based on the documentation review the project verification team can confirm that Project Activity is not likely to cause any negative harm to the environment but would have a positive impact, hence, is eligible to achieve additional E+ certifications

#### D.11. Social Safeguards (S+)

<b>Means of Project Verification</b>	<p>The Project owner has chosen to apply for the Social No-net-harm Label (S+). The assessment of the impact of the project activity on the social safeguards has been carried out in section E.2 of the PSF. Out of all the safeguards no risks were identified to the society due to the project implementation and operation. Only positive impacts identified by the Project owner which is not likely to cause any harm. The following have been identified as positive impacts of the project activity.</p> <p><b>Impacts identified as ‘Harmless’ as regulatory complied OR mitigated:</b></p> <ul style="list-style-type: none"> <li>i. Long-term Jobs: The impacts being monitored throughout crediting period by parameter ‘Quantitative employment’ and is verified under section D.3.7 of this report.</li> </ul>
--------------------------------------	---

	<p>ii. Reducing / increasing accidents/incidents/fatality: - The impact is not significant since there are no heavy machines or trucks are involved in the operation of the project activity. This parameter will be based on the Company EHS policy and verified under section D.3.7 of this report.</p> <p><b>Negative Impacts:</b> No negative impacts identified or verified for the project activity, which cannot be mitigated.</p> <p>An appropriate monitoring plan has been put in place for the elements marked positive. The detailed matrix has been included in appendix 6 of the report.</p>
<b>Findings</b>	No finding is raised.
<b>Conclusion</b>	Based on the documentation review the project verification team can confirm that Project Activity is not likely to cause any negative harm to the society but would have a positive impact, hence, is eligible to achieve additional S+ certifications

### D.12. Sustainable development Goals (SDG+)

<b>Means of Project Verification</b>	<p>The assessment of the contribution of the project activity on United Nations Sustainable Development Goals has been carried out in section F of the PSF. Out of the 17 Goals project activity has no adverse effect on any of the goal and contribute to 03 SDGs:</p> <p>Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all: SDG Target 7.2, The project activity contributes towards this goal by replacing the generation of fossil fuel dominated grid in baseline by renewable solar-based power generation. The contribution towards SDG goal is being monitored by the parameter 'EG<sub>facility,y</sub>', quantity of net electricity generation supplied by the project plants/ units to the grid in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.</p> <p>Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: SDG Target 8.5, The contribution towards SDG goal is by providing employment: The project activity achieve minimum of 10 full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. This has been discussed under section D.3.7 of this report.</p> <p>Goal 13. Take urgent action to combat climate change and its impacts: SDG Target 13.2 "Integrate climate change measures into national policies, strategies and planning", the contribution towards SDG goal is being monitored by the parameter 'CO<sub>2</sub> emissions' in the monitored plan and is found adequate. This has been discussed under section D.3.7 of this report.</p> <p>An appropriate monitoring plan has been put in place to monitor the elements. The detailed matrix has been included in appendix 7 of the verification report. The project activity has achieved a certification label of silver.</p>
<b>Findings</b>	No finding is raised.
<b>Conclusion</b>	Based on the documentation review the project verification team can confirm that Project Activity will contribute to the United Nations Sustainable Development Goals and would have a positive impact, hence, is eligible to achieve additional SDG+ certifications

### D.13. Authorization on Double Counting from Host Country (for CORSIA)

<b>Means of Project Verification</b>	As per the GCC program guidelines the submission of HCA on double counting is required by CORSIA labelled project after 31/12/2020 as verified under section D.13 of this report. For carbon credits issued during 23/11/2017 to 22/11/2027 the host country approval is not required. Thus, for this project activity Host country clearance is not required at the time of project verification.
<b>Findings</b>	FAR 01 was raised.
<b>Conclusion</b>	The project owner has clarified the intent of use of carbon credits for CORSIA hence no double counting will take place.

#### D.14. CORSIA Eligibility (C+)

<b>Means of Project Verification</b>	The project activity meets the CORSIA Eligibility since the crediting period is after 01/01/2016 and the project is applying for registration under GCC which is one of the approved programmes for eligibility. It was also confirmed that the project activity does not fall under the excluded unit types, methodologies, programmer elements, and/or procedural classes. The Project Activity does not cause any net harm to the environment and/or society and therefore achieves Environmental No-net-harm Label (E+) and Social No-net-harm Label (S+) as per the Environmental and Social Safeguards Standard also make contributions for achieving United Nations Sustainability Development Goals (SDGs) to achieving at least three SDGs as per Project Sustainability Standard to achieve SDG+ Label
<b>Findings</b>	FAR 01 was raised.
<b>Conclusion</b>	The project activity meets the CORSIA Label (C+) eligibility: a) The Project Activity complies with all the requirements for the Emission Unit Criteria of CORSIA b) A written attestation from the host country's national focal point on double counting is not required for Emission units till 31 <sup>st</sup> December 2020; c) The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.3 paragraph 21-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project d) The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard and will achieve Environmental No-net-harm Label (E+), Social Nonet-harm Label (S+) for this project activity e) The Project Activity is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), complies with the Project Sustainability Standard and will achieve United Nations Sustainable Development Goals (SDGs) Certification Labels (Silver SDG+ Label) for this project activity

### Section E. Internal quality control

The project verification report prepared by team leader is reviewed by an independent technical reviewer (having competence of relevant technical area himself/herself or through an independent technical area expert) to confirm the internal procedures established by 4KES are duly followed and the Project Verification report/opinion is reached in an objective manner and complies with the applicable GCC requirements.

The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the project verification team. The independent technical reviewer(s) may approve or reject the draft project verification report. The findings may be identified even at this stage, which needs to be

satisfactorily resolved, before submit final report to GCC. The final approval decision is taken by the Head of DOE/Director.

## Section F. Project Verification opinion

4K Earth Science Private Limited has been contracted by 'Astronergy Solar Turkey Enerji A.Ş.' to undertake verification of the project activity "Astronergy Solar Turkey 3". The verification was performed based on rules and requirements defined by GCC for the project activity.

The project activity is a solar power project, which results in reductions of CO<sub>2</sub>e emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario and the emission reductions attributable to the project are, hence, additional to any that would occur in the absence of the project activity. The project correctly applies the approved baseline and monitoring AMS-I.D. version 18.0 and is assessed against latest valid PS, VS and Environment and Social Safeguards Standard, Project-Sustainability-Standard and/or other applicable GCC/CDM Decisions/Tools/Guidance/Forms.

The project activity is likely to achieve the anticipated emission reductions stated in the PSF provided the underlying assumptions do not change. The expected emission reductions (annual average) from the project activity are estimated to be 8,879 tCO<sub>2</sub>e/year over the 10 years crediting period starting from 23/11/2017.

4K Earth Science Private Limited has verified and hereby certifies that the GCC Project Activity "Astronergy Solar Turkey 3":

- has correctly described the Project Activity in the Project Submission Form (version 8.0, dated 28/11/2023) including the applicability of the approved methodology AMS I.D, version 18.0 and meets the methodology applicability conditions, is additional and is expected to achieve the forecasted real, measurable and additional GHG emission reductions, complies with the monitoring methodology, has appropriately conducted local and global stakeholder consultation processes and has calculated emission reduction estimates correctly and conservatively;
- is likely to generate GHG emission reductions amounting to the estimated 87,704 tCO<sub>2</sub>eq over the crediting period, as indicated in the PSF, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2 and therefore requests the GCC Program to register the Project Activity
- is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard, and therefore requests the GCC Program to register the Project Activity, which is likely to achieve the requirements of the Environmental No-net-harm Label (E+) and the Social No-net-harm Label (S+); 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, which is likely to achieve the silver SDG certification label (SDG+).
- The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.3 paragraph 21-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project
- is likely to contribute to CORSIA Eligible Emission Units and has CORSIA Label (C+) certification valid till 31 December 2020. A written attestation from the Host country on double counting is not required



Project Verification Report

until 31 December 2020 and the project was found meeting the applicable requirements prescribed by ICAO.

## Appendix 1. Abbreviations

Abbreviations	Full texts
AC	Alternate Current
ACC	Approved Carbon Credits
AMS	Approved Methodology for SSC Projects
BE	Baseline Emission
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CL	Clarification Request
CM	Combined Margin
CPCB	Central Pollution Control Board
CO <sub>2</sub>	Carbon dioxide
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CP	Crediting Period
CUF	Capacity Utilization Factor
DC	Direct Current
DVR	Draft Verification Report
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GCC	Global Carbon Counsel
GHG	Green House Gas
GSC	Global Stakeholder Consultation
GW	Giga Watt
GWh	Giga Watt hour
IPCC	Intergovernmental Panel on Climate Change
kW	kilo Watt
kWh	kilo Watt hour
LSC	Local Stakeholder Consultation
MoV	Means of Verification
MP	Monitoring Plan
MW	Mega Watt
MWh	Mega Watt hour
ODA	Official Development Assistance
OM	Operating Margin
PA	Project Activity.
PLF	Plant Load Factor
PSF	Project Submission Form
PE	Project Emission
PLF/CUF	Plant Load Factor/Capacity utilization factor
PO	Project Owner
PPA	Power Purchase Agreement
PS	Project Standard
PV	Photovoltaic
SDG	Sustainable Development Goal
tCO <sub>2e</sub>	Tonnes of Carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VS	Verification Standard
LOD	List of Document
BOP	Balance of Plant
4KES	4K Earth Science Private Limited

## Appendix 2. Competence of team members and technical reviewers

<u>Certificate of Competence</u>						
<b>Name</b>	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	<b>Ma Paa Puratchikkanal</b>				
<b>Qualification Procedure</b>	Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.					
<b>Appointed to work as:</b>						
	<b>CDM Validator/Verifier</b>	<b>Team Leader</b>	<b>Team Member</b>	<b>Technical Expert</b>	<b>Technical Reviewer</b>	<b>Financial Expert</b>
<i>Appointed</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Appointed Date</i>	15-07-2023					
<b>Authorized to work as Technical Expert for:</b>						
<i>Authorized Technical Area</i>	<b>Sectoral Scope</b>	<b>TA Code</b>	<b>Technical Area within the scope</b>			
	Energy industries (renewable - / non-renewable sources)	1.1	Thermal energy generation			
	Energy industries (renewable - / non-renewable sources)	1.2	Renewables			
	Energy demand	3.1	Energy demand			
	Construction	6.1	Construction			
	Waste handling and disposal	13.1	Solid waste and wastewater			
	Waste handling and disposal	13.2	Manure			
	Agriculture	15.1	Agriculture			
	GHG+					
	E+					
	S+					
	SDG+					
<b>Authorized to work as Local Expert for:</b>						
<i>Country/Countries</i>	India, Sri Lanka, Indonesia, Vietnam, Turkey, Thailand, Brazil, Myanmar					
<b>Compliance check by:</b> Anand S. R.						

<u>Certificate of Competence</u>						
<b>Name</b>	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	<b>Anand S.R</b>				
<b>Qualification Procedure</b>	Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG/GCC Projects.					
<b>Appointed to work as:</b>						
	<b>CDM Validator/Verifier</b>	<b>Team Leader</b>	<b>Team Member</b>	<b>Technical Expert</b>	<b>Technical Reviewer</b>	<b>Financial Expert</b>
<i>Appointed</i>	Yes	Yes	Yes	Yes	No	No
<i>Appointed Date</i>	15-07-2023					
<b>Authorized to work as Technical Expert for:</b>						
<i>Authorized Technical Area</i>	<b>Sectoral Scope</b>	<b>TA Code</b>	<b>Technical Area within the scope</b>			
	Energy industries (renewable - /non-renewable sources)	1.2	Renewables			

Project Verification Report

	GHG+		
	E+		
	S+		
	SDG+		
<b>Authorized to work as Local Expert for:</b>			
Country/Countries	India		
<b>Compliance check by:</b> Ma Paa Puratchikkanal			

<b>Certificate of Competence</b>						
<b>Name</b>	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	<b>Rohit Badaya</b>				
<b>Qualification Procedure</b>	Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.					
<b>Appointed to work as:</b>						
	<b>CDM Validator/Verifier</b>	<b>Team Leader</b>	<b>Team Member</b>	<b>Technical Expert</b>	<b>Technical Reviewer</b>	<b>Financial Expert</b>
Appointed	Yes	Yes	Yes	Yes	Yes	No
Appointed Date	15/07/2023					
<b>Authorized to work as Technical Expert for:</b>						
<b>Authorized Technical Area</b>	<b>Sectoral Scope</b>	<b>TA Code</b>	<b>Technical Area within the scope</b>			
	Energy industries (renewable - /non-renewable sources)	1.1	Thermal energy generation			
	Energy industries (renewable - /non-renewable sources)	1.2	Renewables			
	Energy distribution	2.1	Energy distribution			
	Energy demand	3.1	Energy demand			
	Waste handling and disposal	13.1	Solid waste and wastewater			
	Waste handling and disposal	13.2	Manure			
	GHG+					
	E+					
	S+					
	SDG+					
<b>Authorized to work as Local Expert for:</b>						
Country/Countries	India					
<b>Compliance check by:</b> Anand S. R.						

**Certificate of Competence**

Project Verification Report

<b>Name</b>	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	<b>Gürcan ÖZKAN</b>				
<b>Qualification Procedure</b>	Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.					
<b>Appointed to work as:</b>						
	<b>CDM Validator/Verifier</b>	<b>Team Leader</b>	<b>Team Member</b>	<b>Technical Expert</b>	<b>Technical Reviewer</b>	<b>Financial Expert</b>
<i>Appointed</i>	No	No	No	No	No	No
<i>Appointed Date</i>	15/07/2023					
<b>Authorized to work as Technical Expert for:</b>						
<i>Authorized Technical Area</i>	<b>Sectoral Scope</b>	<b>TA Code</b>	<b>Technical Area within the scope</b>			
<b>Authorized to work as Local Expert for:</b>						
<i>Country/Countries</i>	Turkey					
<b>Compliance check by:</b> Anand S. R.						

## Appendix 3. Document reviewed or referenced

No.	Author	Title	References to the document	Provider	
1	GCC	GCC Program Manual	<a href="#">Version 03.1</a>	Publicly available	
2	GCC	Project Standard	<a href="#">Version 03.1</a>	Publicly available	
3	GCC	Verification Standard	<a href="#">Version 03.1</a>	Publicly available	
4	GCC	Environment-and-Social - Safeguards-Standard	<a href="#">Version 3.0</a>	Publicly available	
5	GCC	Project-Sustainability-Standard	<a href="#">Version 3.0</a>	Publicly available	
6	GCC	Project Submission Form	<a href="#">Version 01.1</a>	Publicly available	
7	GCC	Project Submission Form (PSF)-Template	<a href="#">Version 3.2</a>	Publicly available	
8	Project Owner	ER Sheet related PSF Version 3	Dated 29/08/2023	Project Owner	
		ER Sheet related PSF Version 4	Dated 23/10/2023		
		ER Sheet related PSF Version 7	Dated 22/11/2023		
		ER Sheet related PSF Version 8	Dated 28/11/2023		
9	UNFCCC	Methodology: AMS-I. D version 18.0	Version 18.0	Publicly available	
10	UNFCCC	Tool to calculate the emission factor Version 7.0	<a href="#">Weblink</a>	Publicly available	
11	UNFCCC	Tool 27- investment analysis, version 12.0	<a href="#">Tool 27</a>	Publicly available	
12	Project Owner	Work Completion Certificate (Commissioning certificates) provisional acceptance letter of all 08-installation issued by		Project Owner	
		<b>Project</b>	<b>Project Owner</b>		<b>Provisional Acceptance (commissioning)</b>
		Yaveriye 9	VATAN GÜNEŞİ 8 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ		02/02/2018
		Yaveriye 10	VATAN GÜNEŞİ 9 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ		02/02/2018
		Yaveriye 11	VATAN GÜNEŞİ 10 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ		02/02/2018
		Yaveriye 12	VATAN GÜNEŞİ 11 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ		02/02/2018
		Yaveriye 13	VATAN GÜNEŞİ 12 ENERJİ ÜRETİM SAN. VE TİC. LTD. ŞTİ		02/02/2018
		Çevretepe 1	SILANUR		23/11/2017



Project Verification Report

No.	Author	Title	References to the document	Provider
			ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	
		Çevretepe 2	NURGÖZDE ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	23/11/2017
		Çevretepe 3	KARS ELEKTRİK ÜRETİM SAN. VE TİC. LTD. ŞTİ.	23/11/2017
13	Project Owner	Letter of Authorization (LoA) for the project	-	Project Owner
14	Project Owner	Technical Details: Manufacturer's specification	<a href="https://www.mgi.com.uy/images/pdf/paneles-poly-cristalin/20151014_CHS_M6610P_3BB_40mm_frame.pdf">https://www.mgi.com.uy/images/pdf/paneles-poly-cristalin/20151014_CHS_M6610P_3BB_40mm_frame.pdf</a>	Project Owner
		Industry standard	<a href="http://storage.googleapis.com/wzukusers/user-22877132/documents/577d99aded6b09BhIRAj/TP672M.pdf">http://storage.googleapis.com/wzukusers/user-22877132/documents/577d99aded6b09BhIRAj/TP672M.pdf</a>	
15	Project Owner	System connection agreement	Dated 31/03/2016	Project Owner
16	Project Owner	Detail Project Report	-	Project Owner
17	Project Owner	Solid Waste Records/Register	-	Project Owner
18	Project Owner	Local Stakeholder Consultation documents like invitation, Notes on LSC, Meeting Photos, MOM	Dated	Project Owner
19	Project Owner	Employee Records / HR policy	-	Project Owner
20	Project Owner	Job related Training / maintenance related training/ Accident/ incidents register	-	Project Owner
21	Project Owner	ODA Declaration	-	Project Owner
22	GCC	Clarification 01	<a href="#">Version 1.3</a>	Publicly available
23	GCC	Clarification 02	<a href="#">Version 01.0</a>	Publicly available
24	GCC	Project Verification Report Template	<a href="#">Version 03.1</a>	Publicly available
25	Ministry of Energy and Natural Resources	Türkiye National Electricity Grid Emission Factor Information Sheet	<a href="https://enerji.gov.tr/Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/T%C3%BCrkiyeUlusaiElektrik%C5%9EbekeEmisyonFakt%C3%B6r%C3%BC/Belgeler/EK-2.pdf">https://enerji.gov.tr/Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/T%C3%BCrkiyeUlusaiElektrik%C5%9EbekeEmisyonFakt%C3%B6r%C3%BC/Belgeler/EK-2.pdf</a>	Publicly available

Project Verification Report

No.	Author	Title	References to the document	Provider
26	Project Owner	PSF Version 03	Dated 29/08/2023	Project Owner
		PSF Version 04	Dated 23/10/2023	
		PSF Version 07	Dated 22/11/2023	
		PSF Version 08	Dated 28/11/2023	
27	Project Owner	Generation Details & Invoice raised	-	Project Owner
28	Project Owner	Declaration for Intended use of ACCs	Dated 29/07/2022	Project Owner
29	Project Owner	Environment Social Management System	-	Publicly available
30	CDM	CDM Website <a href="https://cdm.unfccc.int/Projects/projectsearch.html">https://cdm.unfccc.int/Projects/projectsearch.html</a> <a href="https://cdm.unfccc.int/Projects/Validation/index.html">https://cdm.unfccc.int/Projects/Validation/index.html</a>	-	Publicly Available.
31	VERRA	Verra Registry <a href="https://registry.verra.org/app/search/VCS/All%20Projects">https://registry.verra.org/app/search/VCS/All%20Projects</a>	-	Publicly Available.
32	Gold Standard	GS Website <a href="https://registry.goldstandard.org/projects?q=&amp;page=1">https://registry.goldstandard.org/projects?q=&amp;page=1</a>	-	Publicly Available
33	REC	Renewable Energy Certificate Registry <a href="https://www.recregistryindia.nic.in/index.php/publics/registered_regen_s">https://www.recregistryindia.nic.in/index.php/publics/registered_regen_s</a>	-	Publicly Available
34	ProjectOwner	Regulation on Unlicensed Electricity Production In The Electricity Market	<a href="https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=31502&amp;MevzuatTur=7&amp;MevzuatTertip=5">https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=31502&amp;MevzuatTur=7&amp;MevzuatTertip=5</a>	Publicly Available
35	ProjectOwner	Regulation on Electricity Market Connection And System Usage	<a href="https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=19357&amp;MevzuatTur=7&amp;MevzuatTertip=5">https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=19357&amp;MevzuatTur=7&amp;MevzuatTertip=5</a>	Publicly Available
36	ProjectOwner	Regulation on Environmental Impact Assessment	<a href="https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=39647&amp;MevzuatTur=7&amp;MevzuatTertip=5">https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=39647&amp;MevzuatTur=7&amp;MevzuatTertip=5</a>	Publicly Available
37	ProjectOwner	Law On The Use Of Renewable Energy Sources For Electric Energy Generation	<a href="https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5346&amp;MevzuatTur=1&amp;MevzuatTertip=5">https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5346&amp;MevzuatTur=1&amp;MevzuatTertip=5</a>	Publicly Available

Project Verification Report

No.	Author	Title	References to the document	Provider
38	ProjectOwner	Environment Law	<a href="https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=2872&amp;MevzuatTur=1&amp;MevzuatTertip=5">https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=2872&amp;MevzuatTur=1&amp;MevzuatTertip=5</a>	Publically Available
39	Project Owner	Company Registration certificate and Passport Details of the Project Owner	-	Publically Available
40	Project Owner	Calibration certificates for all meters of the project.	-	Project Owner
41	Project Owner	Company Health and Safety	-	Project Owner
42	GCC	Global Stakeholder Consultation Period	<a href="https://www.globalcarbouncil.com/global-stakeholders-consultation-6/">https://www.globalcarbouncil.com/global-stakeholders-consultation-6/</a>	Publically Available
43	President of revenue Management	Corporate Tax Declaration	-	Project Owner
44	Project owner	IRR Version 03	Dated 29/08/2023	
		IRR Version 04	Dated 23/10/2023	
		IRR Version 07	Dated 22/11/2023	
45	UNFCCC	Tool 20 Assessment of debundling for small-scale project activities version 04.0	<a href="https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-20-v1.pdf">https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-20-v1.pdf</a>	Publically available
46	UNFCCC	Tool 21 : "Demonstration of additionality of smallscale project activities", Version 13.1	<a href="https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-21-v13.1.pdf">https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-21-v13.1.pdf</a>	Publically available
47	UNFCCC	General guidelines for SSC CDM methodologies	<a href="https://cdm.unfccc.int/sunsets/cms/storage/contents/stored-file-20210211212225226/MethodSSC_Guid25ver23.1.pdf">https://cdm.unfccc.int/sunsets/cms/storage/contents/stored-file-20210211212225226/MethodSSC_Guid25ver23.1.pdf</a>	Publically available
48	UNFCCC	GCC Default Cost of Equity for Annex I Countries, version 1.0	<a href="https://www.globalcarbouncil.com/wp-content/uploads/2023/11/default-cost-of-equity-for-annex-i-countries-v1.0.pdf">https://www.globalcarbouncil.com/wp-content/uploads/2023/11/default-cost-of-equity-for-annex-i-countries-v1.0.pdf</a>	Publically available
49	UNFCCC	GCC Standard on Avoidance of	<a href="https://www.globalcarbo">https://www.globalcarbo</a>	Publically

Project Verification Report

No.	Author	Title	References to the document	Provider
		Double Counting, version 1.0	<a href="https://www.ncouncil.com/wp-content/uploads/2022/03/Standard-on-Avoidance-of-Double-Counting-V1-1.pdf">ncouncil.com/wp-content/uploads/2022/03/Standard-on-Avoidance-of-Double-Counting-V1-1.pdf</a>	available
50	UCR	UCR registry: <a href="https://www.ucarbonregistry.io">https://www.ucarbonregistry.io</a>	-	Publically Available

## Appendix 4. Clarification request, corrective action request and forward action request

**Table 1.** CLs from this Project Verification

<b>CL ID</b>	01	<b>Section no.</b>		<b>Date :</b> 04/05/2023
<b>Description of CL</b>				
<p>Project Owner's (PO) is requested to submit the following documents / supporting's:</p> <ol style="list-style-type: none"> <li>1. Final Commissioning certificate for all the installations.</li> <li>2. Details of Sanctioned Connected Load / Contract Demand of all installations.</li> <li>3. Power Purchase Agreements (if you are referring to connection agreement, please provide the translated copy of the document in English. Else, provide the said power purchase agreement.)</li> <li>4. Proof for Start date of project.</li> <li>5. Declaration of intended use of Approved Carbon Credits (ACCs).</li> <li>6. Local Stakeholder Invitations, Photographs and Minutes of Meeting.</li> <li>7. Company HR Policy to support the claims made in PSF.</li> <li>8. Waste management practices and record keeping process.</li> <li>9. ODA declaration</li> <li>10. Details of workers employed during construction stages (both temporary &amp; permanent) and no. of women employed.</li> <li>11. Details of employees employed for the operation of project activity (both temporary &amp; permanent) and no. of women employed.</li> <li>12. Details of Balance of Plant (BOP).</li> <li>13. Calibration certificates for the energy meters.</li> <li>14. Records of training.</li> </ol>				
<b>Project Owner's response</b>				<b>Date :</b> 29/08/2023

<ol style="list-style-type: none"> <li>1. Commissioning documents are provided.</li> <li>2. Can you please clarify the required document?</li> <li>3. As proof of electricity selling, invoices to distribution company (Enerjisa Toroslar) are provided. Since the projects are unlicensed, they do not have purchase agreements with EPIAS. The projects have connection and system use agreements which have been provided.</li> <li>4. Commissioning documents are provided (Proof for start date of project).</li> <li>5. Declaration is provided.</li> <li>6. Please refer to Section G of the PSF.</li> <li>7. Company follows national standards. Türkiye has ratified ILO convention 100, 111, 122 and 142, which provides gender equality.<sup>36</sup></li> <li>8. Declaration is provided.</li> <li>9. Declaration is provided.</li> <li>10. Since the contractor's employees took part in the construction and not Project Owner's employees, no other evidence could be provided. Also as per explanation provided by the Project Owner: "As Astronergy, we continue our activities as an investment firm in Turkey. For this reason, installations in SPPs are not done by us. Progress payments are made by the contractor companies in return for the contract. For this reason, how many people did the contractor company employ in the field during the construction phase. We cannot have a general opinion on the issues. We only have a contract with the contractor. There are also contractors who went bankrupt during the period and we could not reach." Therefore, "New short-term jobs (&lt; 1 year) created/ lost (SJ02)" is not scored in Section E.2. of the PSF.</li> <li>11. Official long term employment records are provided. There is no temporary employment.</li> <li>12. Details of Balance of Plant (BOP) is provided.</li> <li>13. Calibration documents are provided.</li> <li>14. Will be provided.</li> </ol>	
<b>Documentation provided by Project Owner's</b>	
Revised List of document	
<b>GCC Verifier assessment</b>	<b>Date: 21/10/2023</b>
PO is to provide the Connection agreement and records of training as soon as possible.	
<b>Project Owner's response</b>	<b>Date : 23/10/2023</b>
Connection agreements and training records are provided.	
<b>Documentation provided by Project Owner's</b>	
Connection agreements and training records	
<b>GCC Verifier assessment</b>	<b>Date: 30/10/2023</b>
the above document has been revised and found to be ok. Thus, the CL 01 is closed.	

<b>CL ID</b>	02	<b>Section no.</b>	A.1	<b>Date :</b> 04/05/2023
<b>Description of CL</b>				
Proper subscript to be used to denote the chemical formulae of carbon dioxide throughout the PSF.				
<b>Project Owner's response</b>				<b>Date :</b> 29/08/2023
CO <sub>2</sub> has been written corrected throughout the PSF.				
<b>Documentation provided by Project Owner's</b>				
Revised PSF				
<b>GCC Verifier assessment</b>				<b>Date: 21/10/2023</b>

<sup>36</sup> [https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-ankara/documents/genericdocument/wcms\\_645631.pdf](https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-ankara/documents/genericdocument/wcms_645631.pdf)



The above correction has been revised and found to be ok. CL 02 is closed.
--

<b>CL ID</b>	03	<b>Section no.</b>	B.1	<b>Date :</b>	04/05/2023	
<b>Description of CL</b>						
All the calculation tools used in the project activity are to be mentioned here.						
<b>Project Owner's response</b>					<b>Date :</b>	29/08/2023
All tools' applicability conditions have been provided in Section B.1.						
<b>Documentation provided by Project Owner's</b>						
Revised PSF						
<b>GCC Verifier assessment</b>					<b>Date:</b>	21/10/2023
PO is to demonstrate the common eligibility criteria in section B.2 of the PSF. The CL 03 is open						
<b>Project Owner's response</b>					<b>Date :</b>	23/10/2023
Common and specific eligibility is demonstrated in Section B.2. of the PSF.						
<b>Documentation provided by Project Owner's</b>						
Revised PSF						
<b>GCC Verifier assessment</b>					<b>Date:</b>	30/10/2023
The common and specific eligibility has been revised and found to be accepted. The CL 03 is closed.						

**Table 2.** CARs from this Project Verification

<b>CAR</b>	01	<b>Section no.</b>		<b>Date :</b>	04/05/2023	
<b>Description of CAR</b>						
Proof for the PLF as per the CDM Annex 11 guidelines is to be provided.						
<b>Project Owner's response</b>					<b>Date:</b>	29/08/2023
<i>PLF has been calculated using actual generation of the project. The method from an approved project S00132 on GCC portal has been used.</i>						
<b>Documentation provided by Project Owner's</b>						
<i>Revised PSF</i>						
<b>GCC Verifier assessment</b>					<b>Date:</b>	21/10/2023
Since PLF is a major factor for the annual electricity generation, PO to provide the details of PLF which is prepared by the Third party as per the CDM Annex 11. CAR 01 is open.						
<b>Project Owner's response</b>					<b>Date :</b>	23/10/2023
GCC accepts (also other Verifiers that we are working with) actual generation to be used for PLF calculation for already commissioned projects. As an approved GCC project was also provided in our previous response, please continue with the review as it is and during GCC observations process, we can get GCC opinion to close the CAR.						
<b>Documentation provided by Project Owner's</b>						
<i>Revised PSF</i>						
<b>GCC Verifier assessment</b>					<b>Date:</b>	09/11/2023
We are not following the approved projects or other verifiers. As per the CDM EB 48 Annex 11, The plant load factor shall be defined ex-ante in the CDM-PDD according to one of the following three options: (a) The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval; (b) The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company);						
<b>Project Owner's response</b>					<b>Date:</b>	10/11/2023
<i>Please find attached the revised PSF, ER sheet, supporting documents showing the PLF (by a third party contracted by PO</i>						
<b>Documentation provided by Project Owner's</b>						
<i>Revised Document</i>						
<b>GCC Verifier assessment</b>					<b>Date:</b>	12/11/2023

Project Verification Report

The above document has been revised.
--------------------------------------

<b>CAR</b>	02	<b>Section no.</b>	A.5	<b>Date :</b>	04/05/2023	
<b>Description of CAR</b>						
Crediting period mentioned here is one month less than 10 years.						
<b>Project Owner's response</b>					<b>Date:</b>	29/08/2023
<i>The crediting period is 23/11/2017 – 22/11/2027, fixed as 10 years. It has been revised in Section A.5.</i>						
<b>Documentation provided by Project Owner's</b>						
<i>Revised PSF</i>						
<b>GCC Verifier assessment</b>					<b>Date:</b>	21/10/2023
The above correction has been revised and found to be ok. CAR 02 is closed						

<b>CAR</b>	03	<b>Section no.</b>	B.4	<b>Date :</b>	04/05/2023	
<b>Description of CAR</b>						
Since its unlicensed project how do you get the annual electricity generation value? Year of publication of the benchmark and the type of the benchmark (equity or project) is to be provided.						
<b>Project Owner's response</b>					<b>Date:</b>	29/08/2023
<i>Solar models were done to estimate electricity generation. The model reports are provided to the VVB.</i>						
<i>Benchmark has been published on 19/06/2017. The benchmark type is equity IRR as Table 3.3. on page 40 shows.</i>						
<b>Documentation provided by Project Owner's</b>						
<i>Revised PSF</i>						
<b>GCC Verifier assessment</b>					<b>Date:</b>	21/10/2023
The clarification has been revised and found to be ok. CAR 03 is closed.						

<b>CAR</b>	04	<b>Section no.</b>	B.5 Table 5	<b>Date :</b>	04/05/2023	
<b>Description of CAR</b>						
Sensitivity on electricity generation is to be provided.						
<b>Project Owner's response</b>					<b>Date:</b>	29/08/2023
<i>Sensitivity on electricity generation has been provided in the IRR sheet and the PSF.</i>						
<b>Documentation provided by Project Owner's</b>						
<i>Revised PSF</i>						
<b>GCC Verifier assessment</b>					<b>Date:</b>	21/10/2023
For applying benchmark, PO has not provided adequate justification of using 25% as appropriate benchmark as per para 15 of the investment analysis tool. Also PO needs to clarify how taking the commercial lending rates at the time of investment decision is appropriate for 20 year cash flow without considering inflation rates.						
<b>Project Owner's response</b>					<b>Date :</b>	23/10/2023
Para. 15 of Tool 27 is provided in section B.5 of the PSF. The cash flow is prepared by using the currency USD and not TRY. The costs and electricity selling tariff are also in USD currency, therefore, the inflation rates are insignificant in the Equity IRR calculations for this project.						
<b>Documentation provided by Project Owner's</b>						
<i>Revised PSF</i>						
<b>GCC Verifier assessment</b>					<b>Date:</b>	30/10/2023
The above clarification has been revised and found to be ok. The CAR 04 is closed.						

Project Verification Report

<b>CAR</b>	05	<b>Section no.</b>	B.7	<b>Date :</b> 04/05/2023
<b>Description of CAR</b>				
The parameters mentioned in the monitoring plan is not consistent with the parameters selected in the Safeguard tables.				
<b>Project Owner's response</b>				<b>Date:</b> 29/08/2023
<i>The parameters in B.7.1, E.1 and E.2 are made consistent.</i>				
<b>Documentation provided by Project Owner's</b>				
<i>Revised PSF</i>				
<b>GCC Verifier assessment</b>				<b>Date:</b> 21/10/2023
the above correction has been revised and found to be ok. The CAR 05 is closed				

<b>CAR</b>	06	<b>Section no.</b>	IRR	<b>Date :</b> 04/05/2023
<b>Description of CAR</b>				
.PO is to provide the following				
<ul style="list-style-type: none"> <li>• Agreement copy</li> <li>• Tariff Proof</li> <li>• Generation Proof</li> <li>• License Agreement</li> <li>• OPEX Document</li> <li>• Interest proof</li> <li>• Total annual expenses</li> <li>• Salvage value</li> </ul>				
<b>Project Owner's response</b>				<b>Date:</b> 29/08/2023
<ul style="list-style-type: none"> <li>• <i>Agreement copy is provided.</i></li> <li>• <i>Tariff proof is provided.</i></li> <li>• <i>Generation proof is provided (solar simulations). Actual generation proof are also provided (invoices of electricity selling).</i></li> <li>• <i>The project is unlicensed therefore there is no licence agreement.</i></li> <li>• <i>OPEX estimation documents are provided.</i></li> <li>• <i>Since the project was funded by equity, there is no interest proof.</i></li> <li>• <i>Annual expenses are estimated on "Operational Cost" tab in the Excel Spreadsheet.</i></li> <li>• <i>Salvage value is calculated in cell D15.</i></li> </ul>				
<b>Documentation provided by Project Owner's</b>				
<i>Revised documents</i>				
<b>GCC Verifier assessment</b>				<b>Date:</b> 21/10/2023
the above document has been revised and found to be ok. CAR 06 is closed.				

<b>CAR ID</b>	07	<b>Section no.</b>	ER Sheet	<b>Date :</b> 04/05/2023
<b>Description of CL</b>				
ER Calculations sheet specifies the dates from 23/10/2017 - 31/12/2017 (70 days) are taken during the period of 2017 for the purpose of calculation of Emission Reductions. However, in calculation of the number of days the dates are taken as 23-11-2017- 31/12/2017 (39 days). Please clarify.				
<b>Project Owner's response</b>				<b>Date :</b> 29/08/2023
The correct dates are 23/11/2017 – 31/12/2017 for the year 2017. Therefore it has been revised to 39 days in the ER sheet and the PSF.				
<b>Documentation provided by Project Owner's</b>				
<i>Revised ER sheet</i>				
<b>GCC Verifier assessment</b>				<b>Date:</b> 21/10/2023

Project Verification Report

the above correction has been revised and found to be ok. Thus, the CAR 07 is closed.

<b>CAR ID</b>	08	<b>Section no.</b>	A.1	<b>Date :</b>	04/05/2023	
<b>Description of CL</b>						
All the pages of the Letter of Authorization shall be sealed and signed by all the authorized signatories.						
<b>Project Owner's response</b>					<b>Date :</b>	29/08/2023
All parties has signed the LOA and sealed.						
<b>Documentation provided by Project Owner's</b>						
Revised						
<b>GCC Verifier assessment</b>					<b>Date:</b>	21/10/2023
PO is to provide the LOA for verification.						
<b>Project Owner's response</b>					<b>Date :</b>	23/10/2023
LOA is provided.						
<b>Documentation provided by Project Owner's</b>						
LOA						
<b>GCC Verifier assessment</b>					<b>Date:</b>	09/11/2023
The above document has been revised and found to be ok. CAR 08 is closed.						

**Table 3.** FARs from this Project Verification

<b>FAR ID</b>	01	<b>Section no.</b>		<b>Date:</b>	04/05/2023	
<b>Description of FAR</b>						
<i>Project Owners shall demonstrate the compliance to CORSIA requirements for the credits claimed beyond 31 December 2020 with respect to double counting and HCLOA requirements and also future CORSIA requirements applicable time to time for the project activity</i>						
<b>Project Owner's response</b>					<b>Date:</b>	DD/MM/YYYY
<b>Documentation provided by Project Owner</b>						
<b>GCC Project Verifier assessment</b>					<b>Date:</b>	DD/MM/YYYY

## Appendix 5. >> Matrix for Identifying Environmental Impacts, Establishing Safeguards and Performing Do-No-Harm Risk Assessments in the PSF and GCC Verifier's conclusion

Impact of Project Activity on		Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards							Project Owner's Conclusion		GCC Project Verifier's Conclusion  (To be included in Project Verification Report only)		
		Description of Impact <i>(positive or negative)</i>	Legal/voluntary corporate requirement / regulatory/voluntary corporate threshold Limits	Do-No-Harm Risk Assessment (choose which ever is applicable)			Risk Mitigation Action Plans for aspects marked as Harmful		Performance indicator for monitoring of impact		Ex-ante scoring of environmental impact	Explanation of the Conclusion	3 <sup>rd</sup> Party Audit
				Not Applicable	Harmless	Harmful	Operational Controls	Program of Risk Management Actions	Monitoring parameter frequency and of	Ex- Ante scoring of the environmental impact (as per scoring matrix Appendix-02)			
<p><b>Environmental Aspects on the identified categories</b><sup>37</sup> <b>indicated below.</b></p>	<p>Indicators for environmental impacts</p>	<p>Describe and identify anticipated and actual significant environmental impacts, both positive and negative from all sources (stationary and mobile) during normal and abnormal/emergency conditions, that may result from the construction and operations of the Project Activity, within and outside the project boundary, over which the Project Owner(s) has/have control.</p>	<p>Describe the applicable national regulatory requirements / legal limits / voluntary corporate limits related to the identified risks of environmental impacts.</p>	<p>If no environmental impacts are anticipated, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as <b>Not Applicable</b></p>	<p>If environmental impacts exist but are expected to be in compliance with applicable national regulatory /stricter voluntary corporate requirements and will be within legal/voluntary corporate limits by way of plant design and</p>	<p>If negative environmental impacts exist that will not be in compliance with the applicable national legal/ regulatory requirements or are likely to exceed legal limits, then the Project Activity is likely to cause harm</p>	<p>Describe the operational controls and best practices, focusing on how to implement and operate the Project Activity, to reduce the risk of impacts that have been identified as <b>'Harmful'</b> at least to a level that is in compliance with applicable legal/regulatory requirements or industry best practice or stricter voluntary corporate requirements</p>	<p>Describe the Program of Risk Management Actions (refer to Table 3), focusing on additional actions (e.g., installation of pollution control equipment) that will be adopted to reduce or eliminate the risk of impacts that have been identified as <b>Harmful</b>.</p>	<p>Describe the monitoring approach and the parameters (KPI) to be monitored for each impact irrespective of whether it is harmless or harmful. The frequency of monitoring to be specified as well including the data source.</p>	<p>-1 0 +1</p>	<p>Confirm the score of environmental impact of the project with respect to the aspect and its monitored value in relation to legal /regulatory limits (if any) including basis of conclusion.</p>	<p>Describe how the GCC Verifier has assessed that the impact of the Project Activity against the particular aspect and in case of "harmful impacts" how has the project adopted Risk Mitigation Action Plans to mitigate the risks of negative environmental impacts to levels that are unlikely to cause any harm as well as the net positive impacts of the project with respect to the most likely baseline alternative.</p>	

<sup>37</sup> sourced from the CDM SD Tool and the sample reports are available ( <https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx> )

Project Verification Report

					operating principles, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as <b>Harmless</b> //If the project has a positive impact on the environment mark it as "harmless" as well.	(may be un-safe) and shall be indicated as <b>Harmful</b>						
<b>Reference to paragraphs of Environmental and Social Safeguards Standard</b>		Paragraph 12 (a)	Paragraph 13 (c)	Paragraph 13 (d) (i)	Paragraph 13 (d) (ii)	Paragraph 13 (d) (iii)	Paragraph 13 (e) (i)	Paragraph 13 (e) (ii)	Paragraph 12 (c) and Paragraph 13 (f)	Paragraph 22		Paragraph 24 and Paragraph 26 (a) (i)
<b>Environment - Air</b>	SO <sub>x</sub> emissions (EA01)	-	-	-	-	-	-	-	-	-		N/A.
	NO <sub>x</sub> emissions (EA02)	-	-	-	-	-	-	-	-	-		N/A.
	CO <sub>2</sub> emissions (EA03)	The project reduces CO <sub>2</sub> emissions since it reduces the amount of fossil fuel used. In case of "no project", stated amount of electricity would be generated from fossil fuels and cause air pollution.	None	-	Harmless  The overall impact is positive with respect to the baseline alternative.	-	-	-	GHG emission reduction (tonnes of CO <sub>2</sub> e/year) , the parameter will be monitored continuously, and recorded on a monthly basis.	+1	Electricity generated by the power plant will be used to calculate emission reductions achieved by the project.	In the baseline scenario (grid) some of the fossil fuel power plants may have emitted CO <sub>2</sub> emissions, which has been calculated by the combined margin emission factor as mentioned in the PSF. Therefore, emission reductions are expected to be reduced which will be regularly monitored and verified expost.



Project Verification Report

													There is not legal/regulatory limit for this aspect. The GHG emission.
	CO emissions (EA04)	-	-	-	-	-	-	-	-	-	-	-	N/A.
	Suspended particulate matter (SPM) emissions (EA05)	-	-	-	-	-	-	-	-	-	-	-	N/A.
	Fly ash generation (EA06)	-	-	-	-	-	-	-	-	-	-	-	N/A.
	Non-Methane Volatile Organic Compounds (NMVOCs) (EA07)	-	-	-	-	-	-	-	-	-	-	-	N/A.
	Odor (EA08)	-	-	-	-	-	-	-	-	-	-	-	N/A.
	Noise Pollution (EA09)	-	-	-	-	-	-	-	-	-	-	-	N/A.
	Others (EA10)	-	-	-	-	-	-	-	-	-	-	-	N/A.
	Add more rows if required and corresponding notation with EA as prefix)												N/A.
													N/A.

Project Verification Report

Environ- ment - Land	Solid waste Pollution from Plastics (EL-01)	This is a solar power project and hence this aspect has no impact on the project activity. Wasted generated during O&M activities are taken care of by the technician that conducts the O&M activities.	-	-	-	-	-	-	-	-	-	N/A.
	Solid waste Pollution from Hazardous wastes (EL02)	Hazardous wastes are not expected to be generated on-site.	Hazardous wastes might be generated due to operation of the transformer for the solar power plant. However, solar panels do not require or generate waste oil in their operation. Therefore, only source can be transformer oil, which is handled by the transformer company and not the project owner.	Any hazardous wastes will be handled according to the national regulations: Regulation on Waste Management <sup>38</sup> because Regulation on the Control of Hazardous Wastes is no longer in action.	-	-	-	-	Quantity of the waste oil or solid hazardous wastes generated on project sites will be monitored annually and recorded. Disposal records will be kept if shared with the PO. Only source of waste oil is from transformer which is transformer oil. However, the project owner does not apply any handling to the transformers as the transformer company does the maintenance of the transformers and the waste oil if generated. The waste oil is handled by their employees and disposal is their responsibility only.	+1	No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes.	The project owner undertakes to manage solar PV modules waste in an appropriate manner and in compliance to the prevailing laws and regulations. This aspect will be monitored throughout the entire crediting period and the monitoring measures for the same has been incorporated in section B.7.1
	Solid waste Pollution from Bio-medical wastes (EL03)	-	-	-	-	-	-	-	-	-	-	N/A.

<sup>38</sup> Regulation on Waste Management: <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5>

## Project Verification Report

<p><i>Solid waste Pollution from E-wastes (EL04)</i></p>	<p>E-waste might be generated due to operation of the solar power plant in terms of damaged electronic equipment, computers etc.</p>	<p>In case any e-waste is generated, they will be handled according to national laws and regulations such as Regulation on Electrical and Electronic Waste Control<sup>39</sup>,</p>	<p>-</p>	<p>Harmless</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>Quantity of the e-waste generated on project sites will be monitored annually and recorded. Disposal records will be kept. Any e-waste which requires to be disposed will be taken from the power plant by a licenced company or, they will be taken by the plant's staff to the correct disposal center.</p>	<p>+1</p>	<p>No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes.</p>	<p>Although generation of e-waste is not anticipated from the project, the project owner has ensured that in case e-waste is generated the same will be stored and disposed off as per the applicable E-waste rules.</p>
<p><i>Solid waste Pollution from Batteries (EL05)</i></p>	<p>The project does not use any batteries. However, in case any batteries will be used in the future, this parameter is to be monitored.</p>	<p>In case any battery waste is generated, they will be handled according to national laws and regulations such as Regulation on Waste Management.</p>	<p>-</p>	<p>Harmless</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>Quantity of the waste from batteries generated on project sites will be monitored annually and recorded. Disposal records will be kept. Any battery which requires to be disposed will be taken from the power plant by a licenced company or, they will be taken by the plant's staff to the correct disposal center.</p>	<p>+1</p>	<p>No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes.</p>	<p>Although generation of batteries waste is not anticipated from the project, the project owner has ensured that in case Batteries waste is generated the same will be stored and disposed off as per the applicable waste rules.</p>
<p><i>Solid waste Pollution from end-of-life products/equipment (EL06)</i></p>	<p>Solid waste Pollution from end of life equipment might be generated due to operation of the solar power plant in terms of damaged electronic equipment, computers, broken solar panels etc. to be discarded.</p>	<p>In case any e-waste is generated, they will be handled according to national laws and regulations such as Regulation</p>	<p>-</p>	<p>Harmless</p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>Quantity of the waste from batteries generated on project sites will be monitored annually and recorded. Disposal records will be kept. Any battery which requires to be disposed will be taken from the power plant by a</p>	<p>+1</p>	<p>No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes.</p>	<p>Project Owner is responsible to maintain records and dispose all products after ending lifecycle as per applicable law. Project owner will be responsible to maintain records and filling of record as per applicable law and will not have</p>

<sup>39</sup> <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16159&MevzuatTur=7&MevzuatTertip=5>

Project Verification Report

			on Waste Management. However, there is no legal legislation and regulation for the recycling of solar panels in Türkiye.						licenced company or, they will be taken by the plant's staff to the correct disposal center.			no significant impact. This aspect will be monitored throughout the entire crediting period and the monitoring measures for the same has been incorporated in section B.7.1.
	Soil Pollution from Chemicals (including Pesticides, heavy metals, lead, mercury) (EL07)	-	-	-	-	-	-	-	-	-		N/A.
	land use change (change from cropland /forest land to project land) (EL08)	Project area is not prone to erosion. The project area was arid land. The project is not located on cropland. Therefore, there has not been any adverse effects of the project on land.	-	-	-	-	-	-	-	-		N/A.
	Others (EL09)	-	-	-	-	-	-	-	-	-		N/A.
	Add more rows if required	-	-	-	-	-	-	-	-	-		N/A.
		-	-	-	-	-	-	-	-	-		N/A.
<b>Environment - Water</b>	Reliability/ accessibility of water supply (EW01)	-	-	-	-	-	-	-	-	-		N/A.
	Water Consumpti	The project does not use ground water during	-	-	-	-	-	-	-	-		N/A.

Project Verification Report

	<i>on from ground and other sources (EW02)</i>	operation. Groundwater was not used during construction phase as well. In case of water requirement, water supply tanks can be used.										
	<i>Generation of wastewater (EW03)</i>	No wastewater is generated on the project sites during operation	-	-	-	-	-	-	-	-		N/A.
	<i>Wastewater discharge without/with insufficient treatment (EW04)</i>	No wastewater is generated on the project sites, therefore, wastewater is not discharged without insufficient treatment.	-	-	-	-	-	-	-	-		N/A.
	<i>Pollution of Surface, Ground and/or Bodies of water (EW05)</i>		-	-	-	-	-	-	-	-		N/A.
	<i>Discharge of harmful chemicals like marine pollutants / toxic waste (EW06)</i>		-	-	-	-	-	-	-	-		N/A.
	<i>Others (EW07)</i>		-	-	-	-	-	-	-	-		N/A.
	<i>Add more rows if required</i>		-	-	-	-	-	-	-	-		N/A.
			-	-	-	-	-	-	-	-		N/A.
<b>Environment – Natural Resources</b>	<i>Conserving mineral resources (ENR01)</i>		-	-	-	-	-	-	-	-		N/A.
	<i>Protecting/enhancing</i>		-	-	-	-	-	-	-	-		N/A.

Project Verification Report

	<i>plant life (ENR02)</i>												
	<i>Protecting/enhancing species diversity (ENR03)</i>	-	-	-	-	-	-	-	-	-	-		N/A.
	<i>Protecting/enhancing forests (ENR04)</i>	-	-	-	-	-	-	-	-	-	-		N/A.
	<i>Protecting/enhancing other depletable natural resources (ENR05)</i>	-	-	-	-	-	-	-	-	-	-		N/A.
	<i>Conserving energy (ENR06)</i>	-	-	-	-	-	-	-	-	-	-		N/A.
	<i>Replacing fossil fuels with renewable sources of energy (ENR07)</i>	-	-	-	-	-	-	-	-	-	-		N/A.
	<i>Replacing ODS with non-ODS refrigerants (ENR08)</i>	-	-	-	-	-	-	-	-	-	-		N/A.
	<i>Others (ENR09)</i>	-	-	-	-	-	-	-	-	-	-		N/A.
	<i>Add more rows if required</i>												N/A.
<b>Net Score:</b>			<b>+5</b>										



Project Verification Report

<b>Project Owner's Conclusion in PSF:</b>		The Project Owner confirms that the Project Activity will not cause any net harm to Environment.
<b>GCC Project Verifier's Opinion:</b>		The GCC Verifier certifies that the Project Activity [is not likely to cause any] or [is likely to cause] net harm to the environment...

**Appendix 6. Matrix for Identifying Environmental Impacts, Establishing Safeguards and Performing Do-No-Harm Risk Assessments in the PSF and GCC Verifier's conclusion**

Impact of Project Activity on	Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards						Project Owner's Conclusion	GCC project Verifier's Conclusion  (To be included in Project Verification Report only)				
	Description of Impact <i>(positive or negative)</i>	Legal requirement /Limit, Corporate policies / Industry best practice	Do-No-Harm Risk Assessment (Choose which ever is applicable)			Risk Mitigation Action Plans (for aspects marked as Harmful)			Performance indicator for monitoring of impact.	Ex-ante scoring of environmental impact	Explanation of the Conclusion	3 <sup>rd</sup> Party Audit
			Not Applicable	Harmless	Harmful							

## Project Verification Report

<p><b>Social Aspects on the identified categories<sup>40</sup> indicated below.</b></p>	<p>Indicators for social impacts</p>	<p>Describe and identify actual and anticipated impacts on society and stakeholders, both positive or negative, from all sources during normal and abnormal/emergency conditions that may result from constructing and operating of the Project Activity within or outside the project boundary, over which the project Owner(s) has/have control</p>	<p>Describe the applicable national regulatory requirements / legal limits or organizational policies or industry best practices related to the identified risks of social impacts</p>	<p>If no social impacts are anticipated, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as <b>Not Applicable</b></p>	<p>If social impacts exist but are expected to be in compliance with applicable national regulatory requirements / stricter voluntary corporate limits by way of plant design and operating principles then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as <b>Harmless</b>, project having positive impact on society. To the BAU / baseline scenario must also mark their aspect as "harmless"</p>	<p>If negative social impacts exist that will not be in compliance with the applicable national legal/ regulatory requirements or are likely to exceed legal limits, then the Project Activity is likely to cause harm and shall be indicated as <b>Harmful</b></p>	<p>Describe the operational or management controls that can be implemented as well as best practices, focusing on how to implement and operate the Project Activity, to reduce the risk of impacts that have been identified as <b>Harmful</b>.</p>	<p>Describe the monitoring approach and the parameters (KPI) to be monitored for each impact irrespective of whether it is harmless of harmful. The frequency of monitoring to be specified as well. Monitoring parameters can be quantitative or qualitative in nature along with the data source</p>	<p>-1 0 +1</p>	<p>Confirm the score of the social impacts of the project with respect to the aspect and its monitored value in relation to legal/regulatory limits (if any) including basis of conclusion</p>	<p>Describe how the GCC Verifier has assessed that the impact of Project Activity on social aspects (based on monitored parameters, quantitative or qualitative) and in case of "harmful" aspects how has the project owner adopted Risk Mitigation Action / management actions plans and policies to mitigate the risks of negative social impacts to levels that are unlikely to cause any harm.  Also describe the positive impacts of the project on the society as compared to the baseline alternative or BAU scenario.</p>
<p><b>Reference to paragraphs of Environmental and Social Safeguards Standard</b></p>		<p>Paragraph 12 (a)</p>	<p>Paragraph 13 (c)</p>	<p>Paragraph 13 (d) (i)</p>	<p>Paragraph 13 (d) (ii)</p>	<p>Paragraph 13 (d) (iii)</p>	<p>Paragraph 13 (e) (i)</p>	<p>Paragraph 12 (c) and Paragraph 13 (f)</p>	<p>Paragraph 23</p>	<p>Paragraph 24 and Paragraph 26 (a) (ii)</p>	
<p><b>Social - Jobs</b></p>	<p>Long-term jobs (&gt; 1 year) created/ lost (SJ01)</p>	<p>The project creates long term job opportunities. All employments are done according to the national employment regulations.</p>	<p>-</p>	<p>-</p>	<p>Harmless  As the impact is positive in nature</p>	<p>-</p>	<p>-</p>		<p>+1</p>	<p>Employees working under the main company ASTRONERGY SOLAR TURKEY ENERJİ A.Ş. works for the projects in the bundle. They are employed also to work</p>	<p>The project operation has created new job opportunities in the area during operational phase of the</p>

<sup>40</sup> sourced from the CDM SD Tool and the sample reports are available ( <https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx> )

Project Verification Report

										in the other bundles of the main company as shifting.	project activity. The number of persons employed would be monitored through HR records and payroll records. This will be monitored as per monitoring plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the Project Verification Report.
	<i>New short-term jobs (&lt; 1 year) created/ lost (SJ02)</i>	-	-	-	-	-	-	-			N/A.
	<i>Sources of income generation increased / reduced (SJ03)</i>	-	-	-	-	-	-	-			N/A.
	<i>Avoiding discrimination when hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities (SJ04)</i>  <i>(Human rights)</i>	-	-	-	-	-	-	-			N/A.
<b>Social - Health &amp; Safety</b>	<i>Disease prevention (SHS01)</i>	-	-	-	-	-	-	-			N/A.
	<i>Occupational health hazards (SHS02)</i>	-	-	-	-	-	-	-			N/A.
	<i>Reducing / increasing accidents/incidents/fatality (SHS03)</i>	The project owner provides HSE training for employees.	According to "Regulation on the Procedures	-	Harmless	-	-	HSE training will be provided to personnel.	+1	HSE trainings will be provided to the staff.	The project activity Cause of physical hazards in

Project Verification Report

			and Principles of Employee's OHS Training <sup>41</sup> in official gazette No. 28648 on 15/05/2013					The HSE training record will be stored in by the project owner during operation period.			project sites due to human intervention or technical failure or emergency. This will be monitored as per monitoring plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the Project Verification Report.
	<i>Reducing / increasing crime (SHS04)</i>	-	-	-	-	-	-	-			N/A.
	<i>Reducing / increasing food wastage (SHS05)</i>	-	-	-	-	-	-	-			N/A.
	<i>Reducing / increasing indoor air pollution (SHS06)</i>	-	-	-	-	-	-	-			N/A.
	<i>Efficiency of health services (SHS07)</i>	-	-	-	-	-	-	-			N/A.
	<i>Sanitation and waste management (SHS08)</i>	-	-	-	-	-	-	-			N/A.
	<i>Other health and safety issues (SHS09)</i>	-	-	-	-	-	-	-			N/A.
	<i>Add more rows if required</i>	-	-	-	-	-	-	-			N/A.
<b>Social - Education</b>	<i>specialized training / education to local personnel (SE01)</i>	-	-	-	-	-	-	-			N/A.
	<i>Educational services improved or not (SE02)</i>	-	-	-	-	-	-	-			N/A.

<sup>41</sup> <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=18371&MevzuatTur=7&MevzuatTertip=5>

## Project Verification Report

	<i>Project-related knowledge dissemination effective or not (SE03)</i>	-	-	-	-	-	-	-			N/A.	
	<i>Other educational issues (SE03)</i>	-	-	-	-	-	-	-			N/A.	
	<i>Add more rows if required (SE04)</i>	-	-	-	-	-	-	-			N/A.	
<b>Social - Welfare</b>	<i>Improving/ deteriorating working conditions (SW01)</i>	-	-	-	-	-	-	-			N/A.	
	<i>Community and rural welfare (indigenous people and communities) (SW02)</i>	-	-	-	-	-	-	-			N/A.	
	<i>Poverty alleviation (more people above poverty level) (SW03)</i>	-	-	-	-	-	-	-			N/A.	
	<i>Improving / deteriorating wealth distribution/ generation of income and assets (SW04)</i>	-	-	-	-	-	-	-			N/A.	
	<i>Increased or / deteriorating municipal revenues (SW05)</i>	-	-	-	-	-	-	-			N/A.	
	<i>Women's empowerment (SW06)</i> <i>(Human rights)</i>	The PO prioritizes inclusion and participation of both men and women, therefore there will not be social inequality.	Türkiye has ratified ILO convention 100, 111, 122 and 142, which provides gender equality.	-	-	-	-	-	All the workers are socially secured by the PO and protected by employment agreements.	0	In case of employment, women will have the same opportunities and rights as men do, their employment will be done according to national laws and regulations on employment and equal opportunities for men and women	N/A.
	<i>Reduced / increased traffic congestion (SW07)</i>	-	-	-	-	-	-	-				N/A.

## Project Verification Report

<p><i>Exploitation of Child labour</i> (Human rights) (SW08)</p>	PO will never be complicit in violence or human rights abuses or child/forced labor.	Türkiye has ratified ILO convention 100, 111, 122 and 142, which provides gender equality.	-	-	-	-	All the workers are socially secured by the PO and protected by employment agreements.	0	If any complaint is received by the PO, they will act on the issue right away throughout the lifetime of project activity	N/A.
<p><i>Minimum wage protection</i> (Human rights) (SW09)</p>	-	-	-	-	-	-	-			N/A.
<p><i>Abuse at workplace. (With specific reference to women and people with special disabilities / challenges)</i> (Human rights) (SW10)</p>	-	-	-	-	-	-	-			N/A.
<p><i>Other social welfare issues</i> (SW11)</p>	-	-	-	-	-	-	-			N/A.
<p><i>Avoidance of human trafficking and forced labour</i> (Human rights) (SW12)</p>	-	-	-	-	-	-	-			N/A.
<p><i>Avoidance of forced eviction and/or partial physical or economic displacement of IPLCs</i> (Human rights) (CW13)</p>	-	-	-	-	-	-	-			N/A.
<p><i>Provisions of resettlement and human settlement displacement</i> (Human rights) (CW14)</p>	-	-	-	-	-	-	-			N/A.

Project Verification Report

	<i>Add more rows if required</i>											N/A.
<b>Net Score:</b>		+2										
<b>Project Owner's Conclusion in PSF:</b>		The Project Owner confirms that the Project Activity will not cause any net harm to society.										
<b>GCC Project Verifier's Opinion:</b>		The GCC Verifier certifies that the Project Activity [is not likely to cause any] or [is likely to cause] net harm to society.										



## Appendix 7. Matrix for Demonstration of Contribution of Project to Sustainable Development

UN-level SDGs	UN-level Target	Declared Country-level SDG	Defining Project-level SDGs				GCC Project Verifier's Conclusion  (To be included in Project Verification Report only)	
			Project-level SDGs	Project-level Targets/Actions	Contribution of Project-level Actions to SDG Targets	Monitoring	Verification Process	Are Goal/Targets Likely to be Achieved ?
<p><b>Describe UN SDG targets and indicators</b></p> <p>See: <a href="https://unstats.un.org/sdgs/indicators/indicators-list/">https://unstats.un.org/sdgs/indicators/indicators-list/</a></p>	<p>Describe the UN-level target(s) and corresponding indicator no(s)</p>	<p>Has the host country declared the SDG to be a national priority? Indicate Yes or No</p>	<p>Define project-level SDGs by suitably modifying and customizing UN/ Country-level SDGs to the project scope or creating a new indicator(s). Refer to previous column for guidance.</p>	<p>Define project-level targets/actions in line with need project level indicators chosen. Define the target date by which the project Activity is expected to achieve the project-level SDG target(s).</p>	<p>Describe and justify how actions taken under the Project Activity are likely to result in a direct positive effect that contributes to achieving the defined project-level SDG targets</p>	<p>Describe the monitoring approach and the monitoring parameters to be applied for each project-level SDG indicator and its corresponding target, frequency of monitoring and data source</p>	<p>Describe how the GCC Verifier has verified the claims that the project is likely to achieve the identified Project level SDGs target(s).</p>	<p>Describe whether the project-level SDG target(s) is likely to be achieved by the target date (Yes or no)</p>
<p><b>Goal 1: End poverty in all its forms everywhere</b></p>	-	-	-	-	-	-	N/A.	N/A.

Project Verification Report

<b>Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 3. Ensure healthy lives and promote well-being for all at all ages</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 5. Achieve gender equality and empower all women and girls</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 6. Ensure availability and sustainable management of water and sanitation for all</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all</b>	SDG Target 7.2 “By 2030, increase substantially the share of renewable energy in the global energy mix” by the utilization of solar power as a renewable energy source.” Indicator 7.2.1 Renewable energy share in the total final energy consumption	Yes	Increase the share of renewables in the total installed power capacity connected to the national grid.	Annually generate around 13,518 MWh of renewable energy using solar energy. Enhance the share of installed electricity generation capacity from renewable energy sources	Amount of renewable energy supplied to grid for consumption. Provide 13,518 MWh clean energy annually.	The project increases the renewable energy share in Türkiye’s energy production mix. It provides 13,518 MWh annual clean energy to the grid.	The project fully commissioned and generates electricity from a clean resource without any problem.	Increase the share of renewables in the total installed power capacity connected to the national grid.	Yes
<b>Goal 8. Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all</b>	SDG Target 8.5 “By 2030, achieve full and productive	Yes	Generated job opportunity and income	Provide a long term employment	Employees will be recruited including all levels.	The project created job opportunity for both construction	Project owner employs people according to the	Number of employment as a part of project activity	Yes

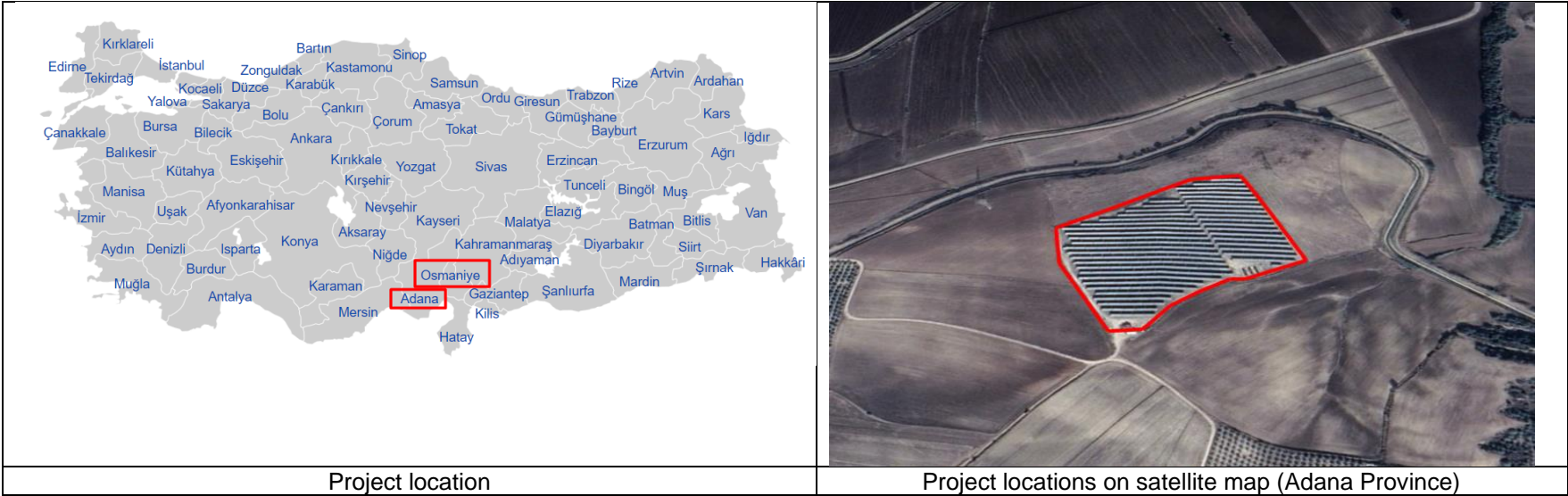
Project Verification Report

	employment and decent work for all women and men, including for young people and persons with disabilities and equal pay for work of equal value". Indicator 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities			opportunity		and operation period. It created long term employment for people directly working at the site.	regulations. Social security payments are done regularly. Check employment records.		
<b>Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 10. Reduce inequality within and among countries</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 11. Make cities and human settlements inclusive, safe, resilient, and sustainable</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 12. Ensure sustainable consumption and production patterns</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 13. Take urgent action to combat climate change and its impacts</b>	SDG 13 Climate Change: SDG Target 13.2 "Integrate climate	Yes	Amount of emission reduction achieved by project under UNFCCC/GC	Reduction in emissions around 8,879 tCO <sub>2</sub> /year	The project has been implemented as per design spec and is likely to provide	The project has been implemented as per design spec and is likely to provide	Calculation of amount of actual emission reduction achieved by the project,	Quantum of GHG avoided due to the project activity	Yes

Project Verification Report

	change measures into national policies, strategies and planning".  Related indicator: 13.2.2 Total greenhouse gas emission per year		C market mechanism		clean renewable energy of around 13,518 MWh per year thus resulting in around 8,879 tCO <sub>2</sub> e emission reduction per year.	clean renewable energy of around 13,518 MWh per year thus resulting in around 8,879 tCO <sub>2</sub> e emission reduction per year	measurement of monthly energy generation from project.		
<b>Goal 14. Conserve and sustainably use the oceans, seas, and marine resources for sustainable development</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 15. Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, and inclusive institutions at all levels</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development</b>	-	-	-	-	-	-	-	N/A.	N/A.
<b>SUMMARY</b>						<b>Targeted</b>		<b>Likely to be Achieved</b>	
<b>Total Number of SDGs</b>						<b>3</b>		<b>3</b>	
<b>Certification label (Bronze, Silver, Gold, Platinum, or Diamond) for the ACCs as defined in the PSF</b>						<b>Silver</b>		<b>Silver</b>	

Appendix 8. Project Implementation and Monitoring Photographs



Project location

Project locations on satellite map (Adana Province)

Project Verification Report



Project locations on satellite map (Adana Province)



Project locations on satellite map (Osmaniye Province)

## DOCUMENT HISTORY

Version	Date	Comment
V 3.1	31/12/2020	<ul style="list-style-type: none"> <li>▪ The name of GCC Program’s emission units has been changed from “Approved Carbon Reductions” or ACRs to “Approved Carbon Credits” or ACCs.</li> </ul>
V 3.0	23/08/2020	<ul style="list-style-type: none"> <li>▪ Revised version released on approval by the Steering Committee as per the GCC Program Process;</li> <li>▪ Revised version contains the following changes:               <ul style="list-style-type: none"> <li>○ Change of name from Global Carbon Trust (GCT) to Global Carbon Council (GCC);</li> <li>○ Considered and addressed comments raised by the Steering Committee:                   <ul style="list-style-type: none"> <li>➤ during physical meeting (SCM 01, dated 29 Oct 2019, Doha Qatar); and</li> <li>➤ electronic consultations EC01-Round 04 (17.08.2020 – 22.08.2020).</li> </ul> </li> </ul> </li> <li>▪ Feedback from the Technical Advisory Board (TAB) of ICAO on GCC submissions for approval under CORSIA<sup>42</sup>;</li> </ul>
V 2.0	25/06/2019	<ul style="list-style-type: none"> <li>▪ Revised version released for approval by the GCC Steering Committee.</li> <li>▪ This version contains details and information to be provided, consequent to the latest worldwide developments (e.g., CORSIA EUC).</li> </ul>
v1.0	01/11/2016	<ul style="list-style-type: none"> <li>▪ Initial version released for approval by the GCC Steering Committee under GCC Program Version 1</li> </ul>

<sup>42</sup>See ICAO recommendation for conditional approval of GCC at [https://www.icao.int/environmental-protection/CORSIA/Documents/TAB/Excerpt\\_TAB\\_Report\\_Jan\\_2020\\_final.pdf](https://www.icao.int/environmental-protection/CORSIA/Documents/TAB/Excerpt_TAB_Report_Jan_2020_final.pdf)



المجلس العالمي للبصمة الكربونية  
GLOBAL CARBON COUNCIL

A member of

