

المجلس العالمي للبصمة الكربونية  
GLOBAL CARBON COUNCIL



# Project Verification Report

V3.1 - 2020



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<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 <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>Makasci-1 Solar Power Plant Bundle</b> Version: 2.0 dated 15/05/2023
<b>Title of the project activity</b>	<b>Makasci-1 Solar Power Plant Bundle</b>
<b>Project submission reference no.</b> (as provided by GCC Program during GSC)	S00226
<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> <input type="checkbox"/> Type B1

<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 <sup>3</sup> B2
<b>Date of completion of Local stakeholder consultation</b>	01/02/2022 in Konya and 03/02/2022 in Karaman.
<b>Date of completion and period of Global stakeholder consultation. Have the GSC comments been verified. Provide web-link.</b>	01/06/2022 GSC was conducted between 18/05/2022 - 01/06/2022 <a href="https://www.globalcarboncouncil.com/global-stakeholders-consultation/">https://www.globalcarboncouncil.com/global-stakeholders-consultation/</a> No comments were received during the GSC period.
<b>Name of Entity requesting verification service</b> (can be Project Owners themselves or any Entity having authorization of Project Owners)	Desilyon Danışmanlık Ticaret A.Ş.
<b>Contact details of the representative of the Entity, requesting verification service</b> (Focal Point assigned for all communications)	Desilyon Danışmanlık Ticaret A.Ş. Mustafa Kemal Mah. Dumlupınar Bulv. No:274 B-Blok No:37 Çankaya/Ankara (+90) (312) 473 40 30 serkan.korkmaz@desilyon.com.tr
<b>Country where project is located</b>	Türkiye
GPS coordinates of the Project site(s)	Provided in section A of the report.
<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)
<b>Project Verification Criteria:</b> Mandatory requirements to be assessed	<input checked="" type="checkbox"/> ISO 14064-2. <input checked="" type="checkbox"/> GCC Rules and Requirements <input checked="" type="checkbox"/> Applicable Approved Methodology <input checked="" type="checkbox"/> Applicable Legal requirements /rules of host country <input checked="" type="checkbox"/> National Sustainable Development Criteria (if any) <input checked="" type="checkbox"/> Eligibility of the Project Type <input checked="" type="checkbox"/> Start date of the Project activity <input checked="" type="checkbox"/> Meet applicability conditions in the applied methodology <input checked="" type="checkbox"/> Credible Baseline <input checked="" type="checkbox"/> Additionality <input checked="" type="checkbox"/> Emission Reduction calculations <input checked="" type="checkbox"/> Monitoring Plan

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

	<ul style="list-style-type: none"> <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 “Makasci-1 Solar Power Plant Bundle”.</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 2.0 dated 15/05/2023) 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 124,800 tCO<sub>2e</sub> 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.</li> <li><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:             <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Environmental No-net-harm Label (<b>E<sup>+</sup></b>)</li> <li><input checked="" type="checkbox"/> Social No-net-harm Label (<b>S<sup>+</sup></b>)</li> </ul> </li> <li><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 05 SDGs, with the following<sup>4</sup> SDG certification label (<b>SDG<sup>+</sup></b>):</li> </ul>

<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.

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	<p> <input type="checkbox"/> Bronze SDG Label  <input type="checkbox"/> Silver SDG Label  <input type="checkbox"/> Gold SDG Label  <input checked="" type="checkbox"/> Platinum SDG Label  <input type="checkbox"/> Diamond SDG Label         </p> <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 1.1, v1.2 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         </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>Version 1.2 dated 17/05/2023</p> <p>Ref No: 22058-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</p>  <p>Managing Director</p>

<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:

Makascı-1 Solar Power Plant Bundle consists of 11 individual Unlicensed Solar Power Plants with a capacity of 12.742 MWp / 10.817 Mwe in total, which is formed according to the Law no: 6446 on Electricity Market Law. Solar panels, inverters and power transmission lines were intended to be built on an area of almost 372,367 m<sup>2</sup> in different region of Türkiye which are Konya and Karaman. The purpose of the project is to generate clean energy by using the solar power and providing the energy to the Turkish national grid. By implementing the project, investors also aim to reduce dependency to the fossil fuels thereby reducing the sources of environmental pollution. The project activity will generate greenhouse gas (GHG) emission reductions by avoiding CO<sub>2</sub> emission from electricity generation by fossil fuel power plants connected to Turkish National Power Grid. Total installed capacity is 12.742 Mwe. In 2016 capacity increased differently, there are differences in annual on-grid power because of different commissioning date of plants. For the crediting period, the first year which is 2016 generated energy is expected to be 6,248 MWh. After that, all plants have been commissioned, and then yearly electricity generation is 19,254 MWh. Moreover, the last year generated energy is expected to be 7,458 MWh because end date of crediting period which is between 01/01/2026 and 17/05/2026 for 2026. Therefore, the average annual generated energy is expected to be 19,254 MWh and the project will be able to deliver a reduction in emissions of around 12,480 tCO<sub>2</sub>e (tons of carbon dioxide equivalent) per annual. For the entire crediting period, 124,800 tonnes of CO<sub>2</sub> are expected to be reduced.

#	Name of SPP	Date of Commissioning	Installed Capacity (kWe)	Installed Capacity (kWp)	Coordinates	
					Decimal Degrees Decimal Degrees	Degrees, minutes, seconds
1	Cerrahi	17/05/2016	999	1070.43	37.289580°N 32.855219°E	37°17'22.52"N 32°51'18.82"E
2	Emrullah Er	17/05/2016	999	1070.43	37.290783°N 32.855647°E	37°17'26.82"N 32°51'20.33"E
3	Fatih Er	19/07/2016	999	1070.43	37.290256°N 32.855486°E	37°17'24.92"N 32°51'19.75"D
4	Beril-1	17/11/2016	1000	1166	38.854803°N 31.878978°E	38°51'17.29"N 31°52'44.32"E
5	Beril-2	17/11/2016	1000	1166	38.853306°N 31.878969°E	38°51'11.90"N 31°52'44.29"E
6	Makascı Mühendislik-7	21/06/2016	1000	1196	38.527442°N 31.612900°E	38°31'38.79"N 31°36'46.44"E
7	Makascı Mühendislik-8	21/06/2016	1000	1196	38.527408°N 31.611042°E	38°31'38.67"N 31°36'39.75"E
8	Yunak-1	17/11/2016	990	1166	38.855514°N 31.883328°E	38°51'19.85"N 31°52'59.98"E
9	Yunak-2	17/11/2016	990	1166	38.855108°N 31.881306°E	38°51'18.39"N 31°52'52.70"E
10	Yunak-3	17/11/2016	850	991.1	38.854603°N 31.883417°E	38°51'16.57"N 31°53'0.30" E
11	Yunak-4	17/11/2016	990	1166	38.854278°N 31.881561°E	38°51'15.40"N 31°52'53.62"E
<b>Total (kW)</b>			10,817	12,424.39		

<b>Total (MW)</b>	10.817	12.424		
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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, CDM Tools and other relevant rules and 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
- On-Site 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 “Makasci-1 Solar Power Plant Bundle” 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 1.1, v1.2 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

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	Puratchikkanal	Ma Paa	Central Office	X		X	X
2.	Technical Expert	IR	Puratchikkanal	Ma Paa	Central Office	X		X	X
3.	Team Member	IR	S R	Anand	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	Kumar	Sanjay	Central Office
2.	Approver	IR	R	Chandrakala	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., on site visit, 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: 24/06/2022 (remote audit)				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening Meeting	Office	24/06/2022	

2	Visit to all installations of PSF The local villagers and stakeholders were also interviewed to know on the process of implementation of the project	Project Location	24/06/2022	M.P.Kanal (Remote audit was conducted )
3	Document Review & Closing Meeting	Office	24/06/2022	Anand S R (Remote audit was conducted )

### C.3. Interviews

No.	Interview			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Sezen	Alper	Project Owner Side	24/06/2022	<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>	M.P.Kanal (Remote audit was conducted )
2.	Akdag	Baharsu	Desilyon Side			
3.	Erol	Ceren	Desilyon Side			Anand S R (Remote audit was conducted )
4.	Dilara Kilic	Beyza	Desilyon Side			
5.	Dereli	Bahattin	Local Stakeholder			
6.	Vali	Ayhan	Local Stakeholder			

### 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>	1		-
General description of project activity	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	2	1	-
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>	1		-
- 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>	-	-	-
- Demonstration of additionality including the Legal Requirements test	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	-	1	-
- Estimation of emission reductions or net anthropogenic removals	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>		2	-
- Monitoring plan	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>			-
Start date, crediting period and duration	A <sub>1</sub> , A <sub>2</sub> , B <sub>1</sub> , B <sub>2</sub>	1		-
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>	-		-
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>	-	1	-
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>	-	-	1
CORSIA Eligibility (C <sup>+</sup> )		-	-	-
<b>Total</b>	-			

## 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 01/22/ which is acceptable since the project has not been registered under any GHG program and the program operations started since 17/05/2016 which is the earliest commissioning date commissioning of a bundle from the project activity. The commissioning document/12/ of the project activity has been verified in this regard and found in order by checking the PPA/15/ and commissioning certificates/12/. Further following project meets the Type A2 (Sub-Type 1) project category 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., o Electricity Market Law, Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy, Energy Efficiency Law, Forest Law and Environment Law</li> </ul>
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	<ul style="list-style-type: none"> <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 a Power Purchase Agreement/15/ between Project Owner and a local electricity distribution company 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 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 project verification team.</li> <li>• The project also delivers real, measurable and additional emission reduction of 12,480 tCO<sub>2</sub>e annually/8/ (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>
<b>Findings</b>	CL01 was raised and closed successfully.
<b>Conclusion</b>	<p>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 1.2 which was verified the 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/, Renewable Energy Certificate (REC) Mechanism Website/33/ in India, confirmed that the project was not submitted or registered under any other GHG/Non GHG programs like I-REC/33/ Renewable Energy Certificate 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/Non GHG programmes and non-voluntary non-GHG Programs.</p>

## D.2. General description of project activity

<b>Means of Project Verification</b>	<p>Makascı-1 Solar Power Plant Bundle consists of 11 individual Unlicensed Solar Power Plants with a capacity of 12.742 MWp / 10.817 MWe in total, which is formed according to the Law no: 6446 on Electricity Market Law. Solar panels, inverters and power transmission lines were intended to be built on an area of almost 372,367 m<sup>2</sup> in different region of Türkiye which are Konya and Karaman. The purpose of the project is to generate clean energy by using the solar power and providing the energy to the Turkish national grid. By implementing the project, investors also aim to reduce dependency to the fossil fuels thereby reducing the sources of environmental pollution. The project activity will generate greenhouse gas (GHG) emission reductions by avoiding CO<sub>2</sub> emission from electricity generation by fossil fuel power plants connected to Turkish National Power Grid. Total installed capacity is 12.424 MWe. In 2016 capacity increased differently, there are differences in annual on-grid power because of different commissioning date of plants. For the crediting period, the first year which is 2016 generated energy is expected to be 6,248 MWh. After that, all plants have been commissioned, and then yearly electricity generation is 19,254 MWh. Moreover, the last year generated energy is expected to be 7,458 MWh because end date of crediting period which is between 01/01/2026 and 17/05/2026 for 2026. Therefore, the average annual generated energy is expected to be 19,254 MWh and the project will be able to deliver a reduction in emissions of around 12,480 tCO<sub>2</sub>e (tons of carbon dioxide equivalent) per annual. For the entire crediting period, 124,800 tonnes of CO<sub>2</sub> are expected to be reduced.</p> <p>In addition to generating emission reductions the project activity also qualifies for other voluntary certification labels</p>
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	<p>Achieving the United Nations Sustainable Development Goals – SDG+( Platinum) +5                  Environmental No-net harm – (E+) +5                  Social No-net harm – (S+) +4                  CORSIA – C+</p> <p>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.</p> <p>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 I-REC/33/ Renewable Energy Certificate 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/Non 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/Non GHG program apart from GCC.</p>
<b>Findings</b>	CL02,CL03 and CAR01 was 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 onsite 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 Verification	Project	Applicability criterion as per AMS I.D Version 18.0	Verifier Assessment.
		<p>This methodology is applicable to grid-connected renewable energy power generation project activities that:</p> <ul style="list-style-type: none"> <li>•Install a Greenfield plant;</li> <li>•Involve a capacity addition in (an) existing plant(s);</li> <li>•Involve a retrofit of (an) existing plant(s);</li> <li>•Involve a rehabilitation of (an) existing plant(s)/unit(s); or</li> <li>•Involve a replacement of (an) existing plant(s).</li> </ul>	<p>The project activity involves a new installation of solar power generation plant. Hence the methodology is applicable to the project activity. This has been verified by the commissioning certificates 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> <p>(a) The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</p> <p>(b) The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the</p>	<p>The project activity is NOT a hydro power project. Hence the condition does not apply. This has been verified by the commissioning certificates provided by the project owner.</p>

	<p>project emissions section, is greater than 4 W/m<sup>2</sup>;                  (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 unit shall not exceed the limit of 15 MW.</p>	<p>The project does not have non-renewable components. The project has only renewable components which has installed capacity is 10.817 MW. Therefore, the project activity is small scale. This has been verified by the commissioning certificates provided by the project owner</p>			
	<p>Combined heat and power (co-generation) systems are not eligible under this category</p>	<p>The project does not have combined heat and power systems</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>This project is not a project involving the capacity addition of renewable energy generation units in an existing renewable energy production facility. Accordingly, this condition is not applicable.</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 production with or without electricity” shall be explored.</p>	<p>The project activity is a solar power generation plant, so the condition does not apply.</p>			
	<p>In case biomass is sourced from dedicated plantations, the applicability criteria in the tool “Project emissions from cultivation of biomass” shall apply.</p>	<p>The project activity is a solar power generation plant. Hence the condition does not apply.</p>			
	<p>In the case of retrofit, rehabilitation or replacement, to qualify as a small-scale project, the total output of the retrofitted, rehabilitated or replacement power plant/unit shall not exceed the limit of 15 MW.</p>	<p>The project does not have a process which includes replacement from fossil fuel to renewable energy, retrofit, or rehabilitation at the site.</p>			
	<p><b>Tool 07: Tool to calculate the emission factor for an electricity system</b></p> <table border="1"> <thead> <tr> <th>Applicability criterion</th> <th>Assessment</th> </tr> </thead> <tbody> <tr> <td> <p>1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a</p> </td> <td> <p>According to “Türkiye National Network Emission Factor Data Sheet” document from Ministry of Energy and Natural</p> </td> </tr> </tbody> </table>		Applicability criterion	Assessment	<p>1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a</p>
Applicability criterion	Assessment				
<p>1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a</p>	<p>According to “Türkiye National Network Emission Factor Data Sheet” document from Ministry of Energy and Natural</p>				



	<p>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).</p>	<p>Resources, Operating, Build and Combined Margin Emission Factors have been published in 06/10/2021. The Ministry has calculated the factors as using the “Tool to calculate the emission factor for an electricity system”. Therefore, this document and the emission factor has been used for this project.</p>				
	<p>2. Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two sub-options under the step 2 of the tool are available to the project participants, i.e., option IIa and option IIb. If option IIa is chosen, the conditions specified in “Appendix 1: Procedures related to off-grid power generation” should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid 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.</p>	<p>Off grid power generation data has not been used.</p>				
	<p>3. In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.</p>	<p>Türkiye is in Annex-I countries, however including GS and VSC the emission factor tool has been used.</p>				
	<p>4. Under this tool, the value applied to the CO2 emission factor of biofuels is zero.</p>	<p>Biofuels has not been used.</p>				
<p><b>Tool 20</b></p> <table border="1"> <thead> <tr> <th>Applicability criterion</th> <th>Assessment</th> </tr> </thead> <tbody> <tr> <td> <p>This methodological tool provides a step-wise approach for the determination of the occurrence of debundling for the proposed small-scale project activities and small-scale CPAs</p> </td> <td> <p>: A proposed small-scale project activity shall be deemed to be a debundled component of a large project activity if there is a registered small-scale CDM project activity or an application to register another small-scale CDM project activity:                      (a) With the same project participants;                      (b) In the same project category and technology/measure; and                      (c) Registered within the previous 2 years; and</p> </td> </tr> </tbody> </table>			Applicability criterion	Assessment	<p>This methodological tool provides a step-wise approach for the determination of the occurrence of debundling for the proposed small-scale project activities and small-scale CPAs</p>	<p>: A proposed small-scale project activity shall be deemed to be a debundled component of a large project activity if there is a registered small-scale CDM project activity or an application to register another small-scale CDM project activity:                      (a) With the same project participants;                      (b) In the same project category and technology/measure; and                      (c) Registered within the previous 2 years; and</p>
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		<p>(d) Whose project boundary is within 1 km of the project boundary of the proposed small- scale activity at the closest point.</p> <p>The project is a small-scale project. Therefore, it is not debundled from large scale project There is no other large-scale project in the areas where the facilities in the project are located. This project is the first project financed by the legal owner. Step-wise approach for determining the occurrence of debundling has been applied below, and since the answer for first step which is “Is there a registered SSC PA with the same project owners as the proposed SSC PA?” where SSC PA stands for “a Small Scale CDM Project Activity” is “No” and the result of the Step-wise approach is “The proposed SSC PA is not deemed to be a debundled component of a large project activity, therefore is eligible to use the simplified modalities and procedures for SSC Pas.”. Therefore, it is not debundled from large scale project.</p>						
<p><b>TOOL 21: Demonstration of additionality of small-scale project activities- Version 13.1</b></p>								
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<p><b>Tool 27: Investment Analysis</b></p>								
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	<p>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</p>						
	<p>Common Eligibility Criteria for all Types</p>						
	<table border="1"> <thead> <tr> <th data-bbox="501 640 995 672">Eligibility criterion</th> <th data-bbox="995 640 1497 672">Assessment</th> </tr> </thead> <tbody> <tr> <td data-bbox="501 672 995 1742"> <p>To confirm eligibility for registration under the GCC Program, for both project Types A and B, prior to submitting project documents to the GCC for conducting a Global Stakeholder Consultation (GSC), the Project Owner shall demonstrate that the GHG emission reduction project:</p> <p>(a) Complies with the eligibility requirements of one of the project types allowed under the GCC, as stipulated in section 44 above.</p> <p>(b) Has started operations, and begun generating emission reductions, after 1 January 2016;</p> <p>(c) Complies with the GCC Rules related to:</p> <p>(i) GHG emission reductions (mandatory requirement);</p> <p>(ii) Contributions to the UN SDGs (SDG+ label) (voluntary requirement for selection, but mandatory if selected);</p> <p>(iii) Do-no-net-harm Environmental requirements (E+ label) (voluntary requirement for selection, but mandatory if selected);</p> <p>(iv) Do-no-net-harm requirements for Society (S+ label) (voluntary requirement for selection, but mandatory of selected); and</p> <p>(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).</p> </td> <td data-bbox="995 672 1497 1742"> <p>The project type is Type A, and the project activity started after 1 January 2016. Also, the project meets all GCC Rules. Hence, the criterion is applicable.</p> </td> </tr> <tr> <td data-bbox="501 1742 995 1957"> <p>Project Owners planning to use ACCs for the pilot phase of CORSIA are eligible to apply under project types A1, A2 and B1, and can be registered under the GCC Program provided that they meet all of the GCC Rules and criteria for CORSIA</p> </td> <td data-bbox="995 1742 1497 1957"> <p>The project is Type A2 and Sub-Type 1. Also, the project meets the GCC rules and criteria for CORSIA. Hence, the criterion is applicable.</p> </td> </tr> </tbody> </table>	Eligibility criterion	Assessment	<p>To confirm eligibility for registration under the GCC Program, for both project Types A and B, prior to submitting project documents to the GCC for conducting a Global Stakeholder Consultation (GSC), the Project Owner shall demonstrate that the GHG emission reduction project:</p> <p>(a) Complies with the eligibility requirements of one of the project types allowed under the GCC, as stipulated in section 44 above.</p> <p>(b) Has started operations, and begun generating emission reductions, after 1 January 2016;</p> <p>(c) Complies with the GCC Rules related to:</p> <p>(i) GHG emission reductions (mandatory requirement);</p> <p>(ii) Contributions to the UN SDGs (SDG+ label) (voluntary requirement for selection, but mandatory if selected);</p> <p>(iii) Do-no-net-harm Environmental requirements (E+ label) (voluntary requirement for selection, but mandatory if selected);</p> <p>(iv) Do-no-net-harm requirements for Society (S+ label) (voluntary requirement for selection, but mandatory of selected); and</p> <p>(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).</p>	<p>The project type is Type A, and the project activity started after 1 January 2016. Also, the project meets all GCC Rules. Hence, the criterion is applicable.</p>	<p>Project Owners planning to use ACCs for the pilot phase of CORSIA are eligible to apply under project types A1, A2 and B1, and can be registered under the GCC Program provided that they meet all of the GCC Rules and criteria for CORSIA</p>	<p>The project is Type A2 and Sub-Type 1. Also, the project meets the GCC rules and criteria for CORSIA. Hence, the criterion is applicable.</p>
Eligibility criterion	Assessment						
<p>To confirm eligibility for registration under the GCC Program, for both project Types A and B, prior to submitting project documents to the GCC for conducting a Global Stakeholder Consultation (GSC), the Project Owner shall demonstrate that the GHG emission reduction project:</p> <p>(a) Complies with the eligibility requirements of one of the project types allowed under the GCC, as stipulated in section 44 above.</p> <p>(b) Has started operations, and begun generating emission reductions, after 1 January 2016;</p> <p>(c) Complies with the GCC Rules related to:</p> <p>(i) GHG emission reductions (mandatory requirement);</p> <p>(ii) Contributions to the UN SDGs (SDG+ label) (voluntary requirement for selection, but mandatory if selected);</p> <p>(iii) Do-no-net-harm Environmental requirements (E+ label) (voluntary requirement for selection, but mandatory if selected);</p> <p>(iv) Do-no-net-harm requirements for Society (S+ label) (voluntary requirement for selection, but mandatory of selected); and</p> <p>(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).</p>	<p>The project type is Type A, and the project activity started after 1 January 2016. Also, the project meets all GCC Rules. Hence, the criterion is applicable.</p>						
<p>Project Owners planning to use ACCs for the pilot phase of CORSIA are eligible to apply under project types A1, A2 and B1, and can be registered under the GCC Program provided that they meet all of the GCC Rules and criteria for CORSIA</p>	<p>The project is Type A2 and Sub-Type 1. Also, the project meets the GCC rules and criteria for CORSIA. Hence, the criterion is applicable.</p>						

Specific Eligibility Criteria for Type A Projects	
Eligibility criterion	Assessment
<p>For Type A projects (both A1 and A2), as stipulated in section 44 above, the Project Owner shall demonstrate that the Project Activity:</p> <p>(a) Is not required by a legal mandate and does not implement a legally enforced mandate (government regulation or law);</p> <p>(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;</p> <p>(c) Delivers real, measurable, and additional emission reductions compared to its baseline; and</p> <p>(d) Applies an approved CDM or GCC Baseline and Monitoring Methodology.</p>	<p>The project activity is installation of solar power plant which meets legal requirements and does not implement a legally enforced mandate. Also, the project aims to reduce the measurable emission using an approved CDM Monitoring Methodology (AMS-I.D “Grid connected renewable electricity generation” - Version 18.0). Hence, the criterion is applicable</p>
<b>Findings</b>	CL04 was 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>6</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.

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

<b>Means of Project Verification</b>	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

<sup>6</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)

<b>Means of Project Verification</b>	<p>As per the applied methodology AMS I.D Version 18.0, the spatial extent of the project boundary includes the solar project, sub-stations, grid and all power plant connected to grid. The proposed project activity will evacuate power to the National grid. Therefore, the entire National grid and all connected power plants have been considered in the project boundary for the proposed project activity..</p> <p>The project verification team conducted desk review of the implemented project to confirm the appropriateness of the project boundary identified. The project verification team confirmed that all GHG sources required by the methodology have been included within the project boundary.</p> <p>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.</p>
<b>Findings</b>	No findings raised in this context.
<b>Conclusion</b>	<ul style="list-style-type: none"> <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>AMS-I.D: Grid connected renewable electricity generation, ver 18.0 is the methodology for small scale project activities. Therefore, Makascı-1 Solar Power Plant Bundle follows this methodology. Within the scope of this methodology, “Tool to calculate the emission factor for an electricity system, version 07.0”, “demonstration of additionality of small-scale project activities, version 13.1” and “investment analysis, version 11.0” have been used.</p> <p>The baseline scenario has been stated as “the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources” with respect to the methodology.</p> <p>The project activity includes solar power plant to benefit power of the solar to produce electricity and supply to the Turkish National Grid.</p> <p>Thermal power plants are the most used type in electrical energy production in Türkiye. However, that is not enough since Türkiye is an upper-developing country and there is an increasing demand of electricity. Also, these plants cause a lot of carbon emissions.</p> <p>Because of the slow development of alternative energy sources, thermal power plants will increase in the future to meet the demand of electricity. Furthermore, because the large natural resource availability in Türkiye, thermal power plants has been increased.</p> <p>In the absence of the proposed project activity, the number of thermal power plants would increase in order to meet the electricity demand. The figure below shows Türkiye's maximum electricity demand prediction for the years 2020-2029.</p>
<b>Findings</b>	No findings were raised in this context.
<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 Verification</b>	<b>Project</b>
	<p>The GCC applies the following approach for demonstrating additionality, consisting of two components:</p> <ul style="list-style-type: none"> <li>(a) A Legal Requirement Test</li> <li>(b) An Additionality Test either based on a Positive List test or a projects-specific additionality test.</li> </ul> <p><b>Legal Requirement Test</b></p> <p>Type A projects shall be deemed non-additional if their implementation is required by a law that is enforced. A positive outcome of the legal requirement test ensures that eligible projects (and the GHG emission reductions that they achieve) would not have occurred in order to comply with federal, state or local regulations, or other legally-binding mandates. A project passes the legal requirement test when there are no enforced laws, statutes, regulations, court orders, environmental-mitigation agreements, permitting conditions or other legally-binding mandates requiring its implementation, or requiring the implementation of a similar technology/measure that would achieve equivalent levels of GHG emission reductions. Voluntary commitments/agreements within a sector or by an entity do not constitute the legal requirements.</p> <p>The project is not enforced by law. The project passes the legal requirement test since there are no enforced laws, statutes, regulations, court orders, environmental-mitigation agreements, permitting conditions of other legally binding mandates requiring its implementation. Since voluntary commitments/agreements within a sector or by an entity do not constitute the legal requirement, the project is additional as per paragraph 46 of Project Standard.</p> <p>The proposed project activity meets the criteria for additionality since:</p> <ul style="list-style-type: none"> <li>• The project without carbon credits does not provide benefit financially.</li> <li>• Due to increasing demand of electricity, the proposed project activity is not enough for meeting the demand. Thus, new power plants should be constructed which includes mainly thermal power plants.</li> <li>• Mandatory laws and regulations are present:             <ul style="list-style-type: none"> <li>o Electricity Market Law</li> </ul> <p>Summary: The purpose of the electricity market law is to ensure the establishment of a financially sound, stable and transparent electricity market operating in a competitive environment under, and subject to, private law provisions as well as to ensure the independent regulation and supervision of this market for purposes of providing sufficient, good quality, uninterrupted, low cost and environment-friendly electricity to consumers.</p> </li> <li>o Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy</li> </ul> <p>Summary: The purpose of the law on utilization of renewable energy sources for the purpose of generating electrical energy is to expand the utilization of renewable energy sources for generating electric energy, to benefit from these resources in a secure, economic and qualified manner, to increase the diversification of energy resources, to reduce greenhouse gas emissions, to assess waste products, to protect the environment and to develop the related manufacturing industries for realizing these objectives.</p> <li>o Energy Efficiency Law</li>



	<p>Summary: The purpose of this law is to increase efficiency in using energy sources and energy in order to use energy effectively, avoid waste, ease the burden of energy costs on the economy and protect environment.</p> <ul style="list-style-type: none"> <li>o Forest Law</li> </ul> <p>Summary: The purpose of this law is to protect forest area.</p> <ul style="list-style-type: none"> <li>o Environment Law</li> </ul> <p>Summary: The purpose of the environment law is to protect and improve the environment which is the common asset of all citizens; make better use of, and preserve land and natural resources in rural and urban areas; prevent water, land and air pollution; by preserving the country's vegetative and livestock assets and natural and historical richness, organize all arrangements and precautions for improving and securing health, civilization and life conditions of present and future generations in conformity with economical and social development objectives, and based on certain legal and technical principles.</p> <p>criteria has been decided as "Use regular additionality procedure" because project is not under the positive list of technology Tool 32. Paragraph 10 of "Demonstration of additionality of small-scale project activities (Tool 21) states that "Project participants shall provide an explanation to show that the project activity would not have occurred anyway due to at least one of the following barriers:</p> <ul style="list-style-type: none"> <li>(a) Investment barrier: a financially more viable alternative to the project activity would have led to higher emissions</li> <li>(b) Technological barrier: a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions</li> <li>(c) Barrier due to prevailing practice: prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions</li> <li>(d) Other barriers: without the project activity, for another specific reason identified by the project participant, such as institutional barriers or limited information, managerial resources, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.</li> </ul> <p>Option (a) are chosen.</p> <p>To evaluate economic and financial status of the project activity, the investment analysis is made (Tool 01). There is no public funding in Türkiye for finance of this type of projects. Based on the average market sheets signed with banks, loan conditions are identified.</p> <p><b>Step 0: Demonstration whether the proposed project activity is the first-of its-kind</b></p> <p>The proposed project activity is not the first-of-its-kind.</p> <p><b>Step 1 - Identification of alternatives to the project activity consistent with current laws and regulations</b></p> <p><b>Sub-step 1a - Define alternatives to the project activity:</b></p> <p>The most realistic and reliable alternatives to the project activity are:</p>
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	<ol style="list-style-type: none"> <li>1. Proposed project is not undertaken as a VER or ACC project activity</li> <li>2. Continuation of the current situation-supply of equal amount of electricity by the newly built grid connected power plants</li> </ol> <p>The first alternative, which is the implementation of the project without carbon revenue is not financially attractive as discussed in investment analysis section below. The second alternative (Scenario 2) is the baseline scenario and implementation of the proposed project as a VER or ACC activity would be additional to this scenario. Continuation of the current situation is not considered as a realistic alternative due to increasing electricity demand therefore new power plants should be constructed which includes mainly thermal power plants. Implementation of the project is additional to the baseline scenario which is alternative 2 above and therefore reduces the emissions.</p> <p><b>Outcome of Step 1a</b></p> <p>Continuation of the current situation is not seen as a realistic alternative due to the increasing electricity demand. Therefore, new power plants should be established in order to meet the electricity demand. In order to prevent the establishment of thermal power plants, new power plants should be established using renewable energy. Implementation of the project is in addition to the base scenario alternative 2 above and therefore reduces emissions.</p> <p><b>Sub-step 1b. Consistency with mandatory laws and regulation</b></p> <p>The following applicable mandatory laws and regulations have been identified:</p> <ol style="list-style-type: none"> <li>1. Electricity Market Law</li> <li>2. Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy</li> <li>3. Energy Efficiency Law</li> <li>4. Forest Law</li> <li>5. Environment Law</li> </ol> <p>The resultant alternatives to the project as outlined in Step 1a are in compliance with the applicable laws and regulations.</p> <p><b>Outcome of Step 1b</b></p> <p>Mandatory legislation and regulations for each alternative are taken into account in sub-step 1b. Based on the above analysis, the proposed project activity is not the only alternative amongst the project owners that is in compliance with mandatory regulations. Therefore, the proposed ACC project activity is considered as additional.</p> <p><b>Step 2 - Investment analysis</b></p> <p>The investment analysis has been done in order to make an economic and financial evaluation of the project. No public funding or ODA are available in Türkiye for finance of this type of projects.</p> <p><b>Step 2a – Determine appropriate analysis method</b></p>
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	<p>Three options to identify the analysis methods are as follows:</p> <ul style="list-style-type: none"> <li>• Simple Cost Analysis</li> <li>• Investment Comparison Analysis</li> <li>• Benchmark Analysis</li> </ul> <p>The Simple Cost Analysis is not applicable because the project activity provides economic benefits by selling electricity.</p> <p>There is no alternative investment because the baseline of the project is generation of electricity by the grid.</p> <p>Based on the above situations, the benchmark analysis is chosen for evaluation of the project investment.</p> <p><b>Step 2b – Apply Benchmark Analysis (Option III)</b></p> <p>For the purpose of benchmark analysis pre-tax Project IRR has been chosen as the indicator.</p> <p><b>Local Commercial Lending Rates</b></p> <p>As the tool states local commercial lending rate is convenient benchmarks for a project IRR, therefore it could be chosen as a benchmark. The lending rates for medium term investments are provided by the Strategy and Budget Department of Presidency of the Republic of Türkiye. This project is as a medium-term investment<sup>7</sup> because time frame of the project activity is 25 years.</p> <p>The Strategy and Budget Department publishes “Interest Rates Applied to Loans and Savings<sup>8</sup>” monthly. The interest rate of December 2014 (the investment decision date is 15/12/2014 which is taken from the first system connection agreement of all plant.) is 11.5 % which reflects the banker’s expectations for a similar pre-tax investment.</p> <p>Investment decision date is 15/12/2014 for Makascı-1 SPP Bundle which is taken from the first system connection agreement of all plant. Details about the IRR calculation explained below.</p> <p><b>Sub-step 2c – Calculation and comparison of financial indicators</b></p> <p><b>Table 1. Financial parameters of the Project used for investment analysis</b></p> <table border="1"> <thead> <tr> <th>Parameters</th> <th>Data Value</th> <th>Unit</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Installed Capacity</td> <td>12,424</td> <td>kWp</td> <td rowspan="2">This data has been verified by the Commissioning Certificates of Plants provided by the PO.</td> </tr> <tr> <td>10,817</td> <td>kWe</td> </tr> <tr> <td>PLF Value</td> <td>18.26</td> <td>%</td> <td>Calculated</td> </tr> </tbody> </table>	Parameters	Data Value	Unit	Reference	Installed Capacity	12,424	kWp	This data has been verified by the Commissioning Certificates of Plants provided by the PO.	10,817	kWe	PLF Value	18.26	%	Calculated
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<sup>7</sup> <https://www.investopedia.com/terms/m/mtn.asp>

<sup>8</sup> <https://www.sbb.gov.tr/temel-ekonomik-gostergeler/#1542268521132-a9825b93-fa4c>

	Electricity Generation	19.871	GWh	Feasibility Study Reports of the Plants.														
	Amount of Equity	14,903,380.00	\$	Feasibility Study Reports of the Plants														
	Scrap Value	4,224,490.24	\$	Calculated in the IRR sheet provided by the project owner and has been reviewed and verified.														
	Total Principle Payments	0.00	-	This has been veified by the Opex documents provided by the Project Owner.														
<b>Table 2. Financial parameters used for investment analysis<sup>9</sup></b>																		
<table border="1"> <thead> <tr> <th>Parameters</th> <th>Data Value</th> <th>Unit</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Electricity Tariff for first 10 year</td> <td>13.3</td> <td>¢/kWh</td> <td rowspan="3">This has been verified by the Power Purchase Agreements provided by the Project Owner.</td> </tr> <tr> <td>Market Price after 10 years</td> <td>6</td> <td>¢/kWh</td> </tr> <tr> <td>Expected ACCs price</td> <td>3.5</td> <td>€/tCO<sub>2</sub></td> </tr> </tbody> </table>					Parameters	Data Value	Unit	Reference	Electricity Tariff for first 10 year	13.3	¢/kWh	This has been verified by the Power Purchase Agreements provided by the Project Owner.	Market Price after 10 years	6	¢/kWh	Expected ACCs price	3.5	€/tCO <sub>2</sub>
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<p>According to the investment analysis made for project activity, project Internal Rate of Return (IRR) of the Makascı-1 Solar Power Plant Bundle has been calculated and indicated. IRR at time of investment decision has been calculated 7.52 % referring the parameters given above without considering the carbon revenue.</p> <p>According to the Regulation on Certification and Support of Renewable Energy Resources, the government gave an incentive of 13.3 ¢/kWh for the first 10 years after the facility commissioning, project uses government incentives for electricity generation is assumed still as 9 ¢/kWh after ten years. Average generation has been taken as 19.871 GWh as according to all Feasibility Study Reports of plants.</p>																		
<p><b>Sub-step 2d – Sensitivity Analysis</b></p> <p>Sensitivity analysis has been carried out for three main parameters identified;</p> <ul style="list-style-type: none"> <li>• Investment cost</li> <li>• Operating Cost</li> <li>• Electricity Income</li> <li>• Electricity Generation</li>   <li>• PLF</li> </ul>																		
<b>Table 3. Sensitivity analysis for Makascı-1 SPP Bundle (except carbon revenue)</b>																		
With ±5 fluctuation range up to		% Fluctuation																

<sup>9</sup> <https://www.epdk.gov.tr/Detay/DownloadDocument?id=Z0Yu9X9bM7o=>

	±15 for the above parameters, this table has been generated.	-10	-5	0	+5	+10
	<b>Investment Cost</b>	9.50%	8.46%	7.52%	6.66%	5.87%
	<b>Operating Cost</b>	8.55%	8.05%	7.52%	6.95%	6.35%
	<b>Electricity Income</b>	6.75%	7.15%	7.52%	7.85%	8.17%
	<b>Electricity Generation</b>	4.39%	6.02%	7.52%	8.92%	10.25%
	<b>PLF</b>	4.39%	6.02%	7.52%	8.92%	10.25%

The ACC income will enhance the project’s financial indicators and make it more attractive to investors, according to the investment and sensitivity study. The scenario was examined, and it was discovered that the project is additional in the scenario. Given that the figures above are based on the highest guaranteed price rather than the average price, optimistic estimates for annual generation, and the fact that those figures do not reflect the risk of investment, the role of carbon income is a critical number in allowing the project to move forward and a favorable investment and funding decision to be made. Carbon revenue has a significant effect in this respect in terms of decreasing the period for return on investment and minimizing investment risk.

Investment cost is another key factor that influences equity IRR. However, because the agreements have been signed and the expenses have been realized according to the financial model, there is no way to predict a reduction in the investment cost. Operating expenses have an influence on equity IRR, but it is little and does not result in a substantial change in equity IRR, and the variation percentage required to meet the benchmark is extremely large and unlikely. Based on the above information, it is seen that project is not the most attractive option. Therefore, the project is considered as additional to the baseline scenario.

<b>Findings</b>	No findings raised in this context.
<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>	<p>According to “Türkiye National Network Emission Factor Data Sheet” document from Ministry of Energy and Natural Resources, Operating, Build and Combined Margin Emission Factors have been published. 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. In this published document, the Clean Development Mechanism Tool 07-V07.0 method of the Intergovernmental Panel on Climate Change (IPCC) has been used.</p> <p>The data used for this emission factor are given below.</p> <ul style="list-style-type: none"> <li>• TEİAŞ Türkiye electricity generation-consumption and losses statistics,</li> <li>• Electricity generation (1.A.1.a.i) emission values in the Common Reporting Format (CRF) tables prepared within the scope of Türkiye's National Greenhouse Gas Inventory Report,</li> </ul>
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	<ul style="list-style-type: none"> <li>• Commissioning dates of electricity generation plants in chronological order from TEİAŞ Load Dispatch Department, plant names, fuel types, installed power values, electricity generation amounts for the calculated year,</li> <li>• Voluntary carbon reduction certificate ownership status from the websites of Gold Standard (GS) and Verified Carbon Standard (VCS),</li> <li>• Power plant efficiency figures from Clean Development Mechanism (CDM) Tool 009-V03.0.</li> </ul> <p><b>Calculation of the Operating Margin Emission Factor</b> It's been published as 0.7258 tCO<sub>2</sub>/MWh by the Ministry of Energy and Natural Resources.</p> <p><b>Calculation of the Build Margin Emission Factor</b> It's been published as 0.4153 tCO<sub>2</sub>/MWh by the Ministry of Energy and Natural Resources.</p> <p><b>Calculating of the Combined Margin Emission Factor</b> It's been published as 0.6482 tCO<sub>2</sub>/MWh by the Ministry of Energy and Natural Resources. The combined margin is calculated ex-post and has been fixed for the crediting period.</p> <p><b>Baseline Emission:</b> According to AMS-I.D methodology, emission reductions related to project activities is estimated as follows:</p> $ER_y = BE_y - PE_y - LE_y$ <p>where  ER<sub>y</sub>= emission reductions in year y (tCO<sub>2</sub>/yr)  BE<sub>y</sub>= baseline emissions in year y (tCO<sub>2</sub>/yr)  PE<sub>y</sub>= project emissions in year y (tCO<sub>2</sub>/yr)  LE<sub>y</sub>= leakage emissions in year y (tCO<sub>2</sub>/yr)</p> <p>The baseline emissions are to be calculated as follows:</p> $BE_y = EG_{\text{facility},y} \times EF_{\text{grid,CM},y}$ <p>where  BE<sub>y</sub>= Baseline emissions in year y (tCO<sub>2</sub>/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)  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" (tCO<sub>2</sub>/MWh)</p> <p>According to the calculations average annual net electricity supplies by the project plan is 19,254 MWh/yr. Commissioning dates of the facilities are in same year but in different months, so EG<sub>facility,y</sub>= 19,254 MWh/yr. Also, according to "Türkiye National Network Emission Factor Data Sheet" document from Ministry of Energy and Natural Resources, the emission factor coefficient (EF<sub>grid,CM,y</sub>) could be used as 0.6482 tCO<sub>2</sub>/MWh.</p>
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	<p>Therefore, the baseline emission annually is:</p> $BE_y = (19,254) \times (0.6482) = 12,480 \text{ tCO}_2\text{e/yr}$ <p><b>Project Emission:</b></p> <p>The project activity involves the generation of electricity by development of a solar plant. The generation of electricity does not result in GHG emissions. Therefore,</p> $PE_y = 0$ <p><b>Leakage Emission:</b></p> <p>No leakage is applicable for Makasci-1 Solar Power Plant Bundle under AMS-I.D methodology. Therefore,</p> $LE_y = 0$ <p><b>Baseline Emission:</b></p> <p>The baseline emissions are to be calculated as follows:</p> $BE_y = (EG_{\text{facility},y} - EG_{\text{facility,baseline}}) \times EF_{\text{grid,CM},y}$ <p>Where:</p> <p><math>BE_y</math> = Baseline emissions in year y (tCO<sub>2</sub>/yr)</p> <p><math>EG_{\text{facility},y}</math> = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr)</p> <p><math>EF_{\text{grid,CM},y}</math> = 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” (tCO<sub>2</sub>/MWh)</p> <p><math>EG_{\text{facility,baseline}}</math> = Baseline electricity supplied to the grid in the case of modified or retrofit facilities (MWh). For new power plants this value is taken as zero.</p> <p>The project activity is the installation of a new grid-connected renewable power plant so, <math>EG_{\text{facility,baseline}} = 0</math></p> <p>According to the Masfen-12 Solar Power Plant Bundle, <math>EG_{\text{facility},y} = 19,254</math> MWh/yr. Also, according to calculation, the emission factor coefficient (<math>EF_{\text{grid,CM},y}</math>) is calculated as 0.6482 tCO<sub>2</sub>/MWh.</p> <p>Therefore, the baseline emission annually is:</p> $BE_y = (19,254) \times (0.6482) = 12,480 \text{ tCO}_2\text{e/yr}$ <p>Based on the data above, the emission reduction value for Makasci-1 Solar Power Plant Bundle is:</p>
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	$ER_y = BE_y = 12,480 \text{ tCO}_2\text{e/yr}$
<b>Findings</b>	CAR03 and CAR04 was 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> <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-Standard-v3.0/4/ and Project-Sustainability-Standard-v3.1/5/. 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>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</td> <td>0.4153 tCO<sub>2</sub>/MWh</td> <td>Based on the Türkiye National Network Emission Factor Data Sheet published by Ministry of Energy and Natural Resources. Published on 06/10/2021</td> </tr> <tr> <td>Operating Margin emission factor</td> <td>0.7258 tCO<sub>2</sub>/MWh</td> <td>Based on the Türkiye National Network</td> </tr> </tbody> </table>	Parameter	Value	Source	Build Margin Emission factor	0.4153 tCO <sub>2</sub> /MWh	Based on the Türkiye National Network Emission Factor Data Sheet published by Ministry of Energy and Natural Resources. Published on 06/10/2021	Operating Margin emission factor	0.7258 tCO <sub>2</sub> /MWh	Based on the Türkiye National Network
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			Emission Factor Data Sheet published by Ministry of Energy and Natural Resources. Published on 06/10/2021
	Combined emission factor	Margin	0.6482 tCO <sub>2</sub> /MWh
The parameters that are to be monitored ex-post are:			
1	EG <sub>facility,y</sub>	This parameter is measured in MWh by the electric meter readings on site, annually an average of 19,254 MWh is generated by the Project Activity. These energy readings are taken monthly. The energy meter of 0.5s accuracy level is used in the project activity and it is calibrated every 10 years according to EPDK regulations. Records are taken via remote reading system. The values are cross-check with the on-site meter records. Electricity generation data is recorded by two electricity meters. According to them, the invoices of the electricity are provided. The quantity of electricity supplied by the project activity to the grid and the quantity of electricity delivered to the related area from the grid are measured. Internal consumption from electricity is subtracted from the delivered electricity to calculate the net generation.	
2	CO <sub>2</sub> Emissions	This parameter is measured in tCO <sub>2</sub> e and is calculated by taking the product of Electricity generated by Makascı-1 Solar Power Plant Bundle and the emission factor coefficient. Yearly 12,480 tons of CO <sub>2</sub> is generated annually. This is measured monthly.	
3	PM2.5 and PM10	This parameter is measured in µg/m <sup>3</sup> . The emissions of PM10 and PM2.5 originate from thermal electricity generation. However, Makascı-1 Solar Plant Plant is renewable energy power plant. Therefore, the project will contribute to reductions of both PM2.5 and PM10 by replacing fossil fuels. For 2016, the average PM2.5 and PM10 values are calculated from monitored values. Therefore, the average PM2.5 concentration of Türkiye in 2016 was 27.41 µg/m <sup>3</sup> and the average PM10 concentration of Türkiye in 2016 was 57.48 µg/m <sup>3</sup> . According to the average values, the corresponding PM2.5 reduction from Makascı-1 Solar Power Plant Bundle is calculated as 0.0028 µg/m <sup>3</sup> and the corresponding PM10 reduction from Makascı-1 Solar Power Plant Bundle is calculated as 0.00 µg/m <sup>3</sup> annually these are measured and provided annually by the ministry but the project owner	



		measures for each of the monitoring period. For calculating the PM emission reduction by Makascı-1 Solar Power Plant Bundle, firstly the 'Average PM2.5 Concentration of Türkiye in 2017', and 'Average PM10 Concentration of Türkiye in 2017' are calculated with the values which is taken as the reference websites. Then, 'PM 2.5 emitted for each GWH generation of thermal power plants', and 'PM 10 emitted for each GWH generation of thermal power plants' are calculated to reach values of reduction for Makascı-1 Solar Power Plant Bundle. These are verified by the ER sheet and supporting links provided by the PO.
4	Long Term Jobs (>1 Year) created/lost.	This parameter is measured in the number of employed staff during operation. This is calculated by the employment records which is measured annually. 10 people are employed by the project employees. The employment records provided by the Project Owner is reviewed and verified.
5	New Short-term jobs (< 1 year) created/lost.	This parameter is measured in the number of employed staff during operation. This is calculated by the SGK (Security Institution) records which is measured annually. 10 people are employed by the project employees. The employment records provided by the Project Owner is reviewed and verified.
6	Sources of income generation increased / reduced	This parameter is measured in the number of employed staff during operation. This is calculated by the SGK (Security Institution) records which is measured annually. 10 people are employed by the project employees. The employment records provided by the Project Owner is reviewed and verified.
7	Reducing/increasing accidents.	The Project Owner provides health and safety trainings provided to the employees. This is measured every year.
8	Solid Waste Pollution from hazardous wastes	This parameter is measured by the waste invoices and is generated hazardous waste such as waste oil within the scope of the project may cause soil contamination. A mobile tracking system is being used. The waste is disposed of in a safe manner. These waste invoices provided by the project owner has been reviewed and verified.
9	Solid Waste Pollution from end of life products/equipment	This parameter is measured by the waste invoices and is generated hazardous waste such as solar panel within the scope of the project may cause contamination. A mobile tracking system is being used. The waste is disposed of in a safe manner. These waste invoices provided by the project owner has been reviewed and verified.
10	Solid Waste Pollution from E-waste	This parameter is measured by the waste invoices and is generated due to personnel activities to be carried out during construction and operation phases. The waste declarations are used as the data source. E-wastes will be collected and sent to licensed companies. Amount of e-



			waste generated and disposed of in an environmentally-sound manner. This is measured every year and the waste records provided by the PO has been reviewed and verified.
	11	Replacing fossil fuels with renewable sources of energy	This parameter is measured in tCO <sub>2</sub> e and is reduction of CO <sub>2</sub> emissions due to implementation of the project activity. Energy meters are used for continuous reading but is measured monthly. Electricity generation which is measured and recorded by EPIAS.
	12	Solid Waste Pollution from Batteries	This parameter is measured in waste invoices. The data is taken by the waste declaration provided by the PO which is reviewed and verified. Waste batteries will be collected and sent to licensed companies. Amount of waste battery generated and disposed of in an environmentally-sound manner. There is waste battery formation due to personnel activities to be carried out during the construction and operation phases.
<b>Findings</b>	No findings were raised in this context.		
<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 17/05/2016 which is the earliest commissioning date 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 project 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 18/05/2016, 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>	CL05 raised and closed successfully.
<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>	The project complies with the relevant regulations and laws in Türkiye. In line with Turkish environmental regulations. Solar power plants with less than 1 MW according to Environmental Impact Assessment (EIA) Regulation, an "EIA exemption letter" was approved by the Ministry of Environment, Urbanization and Climate Change for every plant in this bundled project. In addition, for some of the plants, "EIA not required letter" was approved by the Ministry. In line with Turkish environmental regulations, the dates of exemption letters are shown in the Table below.			
	<b>#</b>	<b>Name of SPP</b>	<b>Date of the EIA Exemption</b>	<b>Date of the EIA not required</b>
	1	CERRAHİ	31/10/2013	
	2	EMRULLAH ER	31/10/2013	
	3	FATİH ER	31/10/2013	
	4	BERİL-1	25/02/2014	
	5	BERİL-2	-	24/11/2015
	6	MAKASCI MÜHENDİSLİK-7	-	09/09/2015
	7	MAKASCI MÜHENDİSLİK-8	-	09/09/2015
	8	YUNAK-1	-	24/11/2015
	9	YUNAK-2	-	24/11/2015
	10	YUNAK-3	-	24/11/2015
	11	YUNAK-3	-	24/11/2015
<b>Findings</b>	No findings were raised in this context.			
<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>	<p>According to the Ministry of Environment, Urbanization and Climate, the facilities where the "EIA is not Required" decision is taken are within the scope of Annex-2 list, and Public Participation Meeting is not held in accordance with the regulation. Within the Makascı-1 Solar Power Plant Bundle project, the decision of "EIA is not required" has been made, and a public participation meeting has not been held before. Therefore, the Local Stakeholder meetings were organized by Desilyon Danışmanlık Ticaret A.Ş. for Makascı-1 Solar Power Plant Bundle project. To enhance the participation of all stakeholders several meetings held in the central parts of the provinces. It was arranged at 14:00 on 01/02/2022 Konya and 14:00 on 03/02/2022 Karaman. The meetings were announced orally. Furthermore, announcements were sent to the headmen and coffee houses of the nearby settlements and posted on the board. There were no negative comments in general at the meeting, however the contact information of the facility manager was shared with the stakeholders in order to be able to communicate and comment with the facility manager in the next process, and it was stated that the project owner and the local people would always be in contact. Moreover, feedback from meeting attendees will be reviewed and revised annually (if necessary) during the operational phase,</p>
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	while the grievance mechanism will be reviewed on an ongoing basis. Grievance book has been prepared and it will be delivered to the headman of the nearby village. The complaints will be provided in the Verification process.
<b>Findings</b>	No findings were raised in this context.
<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. For carbon credits issued during 01/01/2016 to 31/12/2020 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 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 Authorization letters signed by the project owners has been verified and also the company registration documents/41/ and project owner valid passports have been checked. Demonstrated by the project owner through the commissioning certificates/12/ power purchase agreement/15/ and Purchase order placed to the major equipment suppliers of the project activity like PV panels, Inverter, Transformer etc. All information were consistent between in these documents and acceptable to the project verification team.
<b>Findings</b>	No findings raised.
<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 18/05/2022-01/06/2022  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>	<p>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 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>Environment – Air- CO<sub>2</sub> emissions.                  Environment- Land- Solid Waste pollution from hazardous waste.                  Environment- Land- Solid Waste Pollution From Batteries.                  Environment- Land- Solid Waste Pollution From end of life products.                  Environment – Natural Resources – Replacing fossil fuels with renewable sources of energy.</p> <p>Few risks identified regarding Solid waste Pollution from PV module waste generated at the end of life or damaged/defunct module generation during operational life of the project activity and project owner provided mitigation plan to reduce the risk is not likely to cause any harm in section B.7.2 of the PSF. The appropriate monitoring plan has been put in place to monitor the elements marked positive and risks identified due to implementation of the project activity and the parameter compliance with local regulations/laws i.e., Solid waste like disposal of Transformer oil and other hazardous, E-Waste generated from the project activity will be also monitored to ensure the compliance of the laws during the crediting period has been provided in Section B.7.1 of the PSF. The detailed matrix has been included in appendix 5 of the report. . The detailed matrix has been included in appendix 5 of the report.</p>
<b>Findings</b>	CAR 06 was raised and closed successfully.
<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>Social-Jobs- Long term jobs (&gt;1 Year) created/lost.                  Social-Jobs- New Short term jobs (&lt;1 Year) created/lost.                  Social-Jobs- Sources of income generation increased / reduced                  Social- Health &amp; Safety- Reducing / increasing accidents</p> <p>An appropriate monitoring plan has been put in place to monitor both the elements. The project verification team cross-check the claims of positive impact of project in society during the site visit and through supporting documents. The detailed matrix providing the project verification team’s assessment has been included in appendix 6 of the verification report.</p>
<b>Findings</b>	No findings were raised in this context.
<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>	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
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	<p>the 17 Goals project activity has no adverse effect on any of the goal and contribute to 05 SDGs:</p> <p>Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all</p> <p>Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p> <p>Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p> <p>Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>Goal 13. Take urgent action to combat climate change and its impacts</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 findings were raised in this context.
<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>	A declaration under section A.5 of the PSF has been included for offsetting the approved carbon credits (ACCs) for the entire crediting period from 18/05/2016 to 17/05/2026.
<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 programmer 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>	<p>The project activity meets the CORSIA Label (C+) eligibility:</p> <p>a) The Project Activity complies with all the requirements for the Emission Unit Criteria of CORSIA</p> <p>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;</p> <p>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., v1.2 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</p> <p>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</p>

	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 UN SDG Certification Labels (Platinum SDG+ Label) for this project activity
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**Section E. Internal quality control**

The 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 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 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 'Desilyon Danışmanlık Ticaret A.Ş.' to undertake verification of the project activity "Makascı-1 Solar Power Plant Bundle". 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 12,480 tCO<sub>2</sub>e/year over the 10 years crediting period starting from 18/05/2016.

4K Earth Science Private Limited has verified and hereby certifies that the GCC Project Activity "Makascı-1 Solar Power Plant Bundle":

- has correctly described the Project Activity in the Project Submission Form (version 2.0, dated 15/05/2023) 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 12,480 tCO<sub>2</sub>e 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 05 SDGs, which is likely to achieve the Platinum 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 1.1, v1.2 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 until 31 December 2020 and the project was found meeting the applicable requirements prescribed by ICAO.

## Appendix 1. Abbreviations

Abbreviations	Full texts
ACC	Approved Carbon Credits
AMS	Approved Methodology for SSC Projects
BE	Baseline Emission
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
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
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Green House Gas
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
OM	Operating Margin
PA	Project Activity.
PSF	Project Submission Form
PE	Project Emission
PLF/CUF	Plant Load Factor/Capacity utilization factor
PO	Project Owner
PS	Project Standard
SDG	Sustainable Development Goal
tCO <sub>2e</sub>	Tonnes of Carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
UPCL	Uttarakhand Power Corporation Ltd
VS	Verification Standard
DISCOM	Distribution Company
SCADA	Supervisory Control And Data Acquisition
LOD	List of Document
BOP	Balance of Plant



## 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>	15-11-2021					
<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/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	Yes	No	No	No
<i>Appointed Date</i>	29-07-2019					
<b>Authorized to work as Technical Expert for:</b>						
<i>Authorized</i>	<b>Sectoral Scope</b>	<b>TA Code</b>	<b>Technical Area within the scope</b>			

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<i>Technical Area</i>	Energy industries (renewable - / non-renewable sources)	1.2	Renewables
	GHG+		
	E+		
	S+		
	SDG+		
<b>Authorized to work as Local Expert for:</b>			
<i>Country/Countries</i>	India		
<b>Compliance check by:</b> M.P. Kanal			

<b>Certificate of Competence</b>						
<b>Name</b>	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	<b>Sanjay Kumar</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	No
<i>Appointed Date</i>	24-11-2022					
<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			
	Energy demand	3.1	Energy demand			
	Construction	6.1	Construction			
	Waste handling and disposal	13.1	Solid waste and wastewater			
	GHG+					
	E+					
	S+					
	SDG+					
<b>Authorized to work as Local Expert for:</b>						
<i>Country/Countries</i>	India and Sri Lanka					
<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	Version 2.0	Publicly available
7	GCC	Project Submission Form (PSF)- Template	Version 3.2	Publicly available
8	Project Owner	ER Sheet related PSF	<a href="#">Weblink</a>	Project Owner
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 21: Demonstration of additionality of small scale project activities.	<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>	Publicly available
12	Project Owner	Work Completion Certificate	Dated 17/05/2016	Project Owner
13	Project Owner	Authorization Letter	18/04/2022	Project Owner
14	Project Owner	Technical Details & Data sheets of Major Equipments involved in the project activity.	-	Project Owner
15	Project Owner	Power purchase agreement	The earliest plant power purchase agreement signed on 15/04/2014	Project Owner
16	Project Owner	Feasibility Study Report	Dec 2015	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 01/02/2022 in Konya and 03/02/2022 in Karaman.	Project Owner
19	Project Owner	Employee Records / HR Records	-	Project Owner
20	Project Owner	Electricity Market Law	<a href="https://www.epdk.gov.tr/Detay/DownloadDocument?id=ln7Z9RT85yM=">https://www.epdk.gov.tr/Detay/DownloadDocument?id=ln7Z9RT85yM=</a>	Project Owner
		Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy	<a href="https://www.mevzuat.gov.tr/MevzuatMetin/1.5.4628.pdf">https://www.mevzuat.gov.tr/MevzuatMetin/1.5.4628.pdf</a>	

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No.	Author	Title	References to the document	Provider
		Energy Efficiency Law	<a href="https://www.mevzuat.gov.tr/MevzuatMetin/1.5.5346.pdf">https://www.mevzuat.gov.tr/MevzuatMetin/1.5.5346.pdf</a>	
		Forest Law	<a href="https://www.mevzuat.gov.tr/MevzuatMetin/1.3.6831.pdf">https://www.mevzuat.gov.tr/MevzuatMetin/1.3.6831.pdf</a>	
		Environment Law	<a href="https://www.mevzuat.gov.tr/MevzuatMetin/1.5.2872.pdf">https://www.mevzuat.gov.tr/MevzuatMetin/1.5.2872.pdf</a>	
21	Project Owner	ODA Declaration	<a href="#">ODA Declaration</a>	Project Owner
22	GCC	Clarification 01	<a href="#">Version 1.2</a>	Publically available
23	GCC	Clarification 02	<a href="#">Version 01.0</a>	Publically available
24	GCC	Project Verification Report Template	<a href="#">Version 03.1</a>	Publically available
25	UNFCCC	Tool 27 : Investment Analysis	<a href="https://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-27-v11.0.pdf">https://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-27-v11.0.pdf</a>	Publically available
26	Project Owner	IRR Sheet	<a href="#">IRR Sensitivity Analysis Makascl-1</a>	Project Owner
27	Project Owner	Generation Details & Invoice raised	-	Project Owner
28	Project Owner	Declaration for Intended use of ACCs	<a href="#">ACC Declaration</a>	Project Owner
29	Project Owner	Environment Social Management System	-	Publically 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>	-	Publically 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>	-	Publically 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>	-	Publically Available
33	I-Rec	I-Rec Standard.	-	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> 04/07/2022
<b>Description of CL</b>				
Project Owner's (PO) is requested to submit the following documents / supporting's:				
<ol style="list-style-type: none"> <li>1. Commissioning Certificates of all the Installations.</li> <li>2. Details of Sanctioned Connected Load / Contract Demand of all the installations.</li> <li>3. Power Purchase Agreements.</li> <li>4. Proof for Start date of project.</li> <li>5. Declaration of intended use of Approved Carbon Credits (ACCs).</li> <li>6. EIA decision proof.</li> <li>7. Local Stakeholder Invitations, Photographs and Minutes of Meeting.</li> <li>8. Company HR Policy to support the claims made in PSF.</li> <li>9. Makasci's Waste management practices and record keeping process.</li> <li>10. ODA declaration</li> <li>11. Details of workers employed during construction stages (both temporary &amp; permanent) and no. of women employed.</li> <li>12. Details of employees employed for the operation of project activity (both temporary &amp; permanent) and no. of women employed.</li> <li>13. Details of Balance of Plant (BOP).</li> <li>14. Calibration certificates for the energy meters.</li> <li>15. Records of training.</li> </ol>				
<b>Project Owner's response</b>				<b>Date :</b> 12/09/2022
<ol style="list-style-type: none"> <li>1. It has been shared in "5-Commissioning Certificates" of LoD.</li> <li>2. It has been shared in "9-Connection Agreement" of LoD.</li> <li>3. It has been shared as Connection Agreement because for SPP in Turkey, the connection agreement can use instead of Power Purchase Agreement "9-Connection Agreement" of LoD.</li> <li>4. It has been mentioned in Commissioning Certificates of all plants. So kindly find the List of Document in "5-Commissioning Certificates".</li> <li>5. It has been shared in "25-ACC Declaration" of LoD.</li> <li>6. It has been shared in "22-EIA Exemption Decision" of LoD.</li> <li>7. It has been shared in "26-LSC Proof" of LoD.</li> <li>8. It has been shared in "27- Company Policy" of LoD.</li> <li>9. It has been shared in "24-Proof for Environmental and Social benefit" of LoD.</li> <li>10. It has been shared in "28-ODA Declaration" of LoD.</li> <li>11. It has been shared in "24-Proof for Environmental and Social benefit" of LoD.</li> <li>12. It has been shared in "24-Proof for Environmental and Social benefit" of LoD.</li> <li>13. It has been shared in "17- Single Line Diagram" of LoD.</li> <li>14. It will be shared when PO will send.</li> <li>15. It has been shared in "24-Proof for Environmental and Social benefit" of LoD.</li> </ol>				
<b>Documentation provided by Project Owner's</b>				
<i>List of Documents</i>				
<b>GCC Verifier assessment</b>				<b>Date:</b> 19/09/2022
The Calibration reports folder and Letter of authorization folder is empty. Photos of the LSC meeting conducted also needs to be included in the LOD. Plant layouts and single line diagrams are to be provided in PDF format.CL01 is still open.				
<b>Project Owner's response</b>				<b>Date :</b> 19/10/2022

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LoA has been shared in LoD-2 documents. LSC meeting photos has been shared in LoD-2. Plant layouts and single line diagrams has been provided as a PSF format in LoD-2.	
<b>Documentation provided by Project Owner's</b>	
LoD-2	
<b>GCC Verifier assessment</b>	<b>Date: 25/04/2023</b>
Calibration certificate of Yunak 4 not received.LSC, plant layouts and single line diagrams. CL01 is open.	
<b>Project Owner's response</b>	<b>Date:26.04.2023</b>
Yunak 4's calibration report, plant layouts and single line diagram has already been sent in LoD2, LSC is added to the LoD3	
<b>Documentation provided by Project Owner's</b>	
LOD 3	
<b>GCC Verifier assessment</b>	<b>Date:03/05/2023</b>
All calibration reports, plant layout and single line diagrams have been reviewed and verified.CL01 is closed.	

<b>CL ID</b>	02	<b>Section no.</b>	A.1 Table 3	<b>Date :</b> 04/07/2022
<b>Description of CL</b>				
PO to clarify what is meant by un-licensed Solar Power Plants? And the difference in the number of inverters ie why more number of inverters used for less area?.				
<b>Project Owner's response</b>				<b>Date :</b> 12/09/2022
According to the article "Solar power plants with a project area of 2 hectares and above or an installed power of 1 MWe and above (excluding roof and facade systems)" in Annex-2 of the Turkish EIA regulation, since each facility in the project is under 1 MW, it is in compliance with this regulation. Therefore, all plants are unlicensed. "EIA Regulation" has been added to the submitted documents from the Regulation file and the mentioned item has been highlighted. Moreover, area values have been fixed in the PSF.				
<b>Documentation provided by Project Owner's</b>				
Revised PSF.				
<b>GCC Verifier assessment</b>				<b>Date:</b> 19/09/2022
The area values for Cerrahi, Emrullah ER and Fatih ER is still incorrect and the huge discrepancy in the number of inverters used still persists PO is to clarify this as soon as possible. CL02 is open.				
<b>Project Owner's response</b>				<b>Date:</b> 18/10/2022
The number of inverters differs according to their capacities. However, the total maximum power capacity of the inverters of all facilities is still 1000 kW. For example, the Surgical facility has an inverter with a capacity of 1000 kW, but Beril-1 has 25 inverters with a maximum power of 25, its total maximum power is 1000 kW. Also, the are values has been deleted.				
<b>Documentation provided by Project Owner's</b>				
Revised PSF.				
<b>GCC Verifier assessment</b>				<b>Date:</b> 26/04/2023
The clarification provided by the project owner is deemed acceptable. In the cover page the reference for standard on avoidance of double accounting is to be included CL02 is open.				
<b>Project Owner's response</b>				<b>Date:</b> 26.04.2023
It has already been added.				
<b>Documentation provided by Project Owner's</b>				
Revised PSF				
<b>GCC Verifier assessment</b>				<b>Date:</b> 03/05/2023
The proper reference for the standard on avoidance of double accounting has been reviewed and verified. CL02 is closed.				

<b>CL ID</b>	03	<b>Section no.</b>	A.3 – Table 3	<b>Date :</b> 04/07/2022
<b>Description of CL</b>				
How is the energy generation value taken in the computations? Please clarify?				

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<b>Project Owner's response</b>	<b>Date : 12/09/2022</b>
In section A.3. electricity generation value is taken as Feasibility Study Reports for all plants.	
<b>Documentation provided by Project Owner's</b>	
<i>FSR in LoD.</i>	
<b>GCC Verifier assessment</b>	<b>Date: 19/09/2022</b>
The plant capacity values and geographical locational values mentioned in the FSR are slightly different than the ones in PSF. Please clarify.CL03 is still open.	
<b>Project Owner's response</b>	<b>Date : 19/10/2022</b>
Since FSR was prepared before project implementation. The plant capacities were not certain at the time. Also, since the installed capacity values in the PSF have been taken from Commissioning Certificates which are given by Ministry of Energy and Natural Resources, the values in the PSF are final validated values. The locations are slightly different so that they have been revised.	
<b>Documentation provided by Project Owner's</b>	
Revised PSF.	
<b>GCC Verifier assessment</b>	<b>Date:26/04/2023</b>
Revisions mentioned above have been reviewed and verified. CL03 is closed.	

<b>CL</b>	04	<b>Section no.</b>	B.2	<b>Date : 04/07/2022</b>
<b>Description of CAR</b>				
Please mention the applicability conditions of AMS-ID as provided in the methodology para and details in the PSF.				
<b>Project Owner's response</b>				<b>Date : 12/09/2022</b>
<i>In section B.2 of PSF, applicability conditions have been already mentioned in detail.</i>				
<b>Documentation provided by Project Owner's</b>				
<i>Revised PSF.</i>				
<b>GCC Verifier assessment</b>				<b>Date: 19/09/2022</b>
The applicability conditions provided in the PSF are reviewed and verified.CL04 is now closed.				

<b>CL</b>	05	<b>Section no.</b>	C.3.2 and C.3.3	<b>Date : 04/07/2022</b>
<b>Description of CAR</b>				
Start date of crediting period need to be clarified. How is this considered as all the commissioning dates are later to it?				
<b>Project Owner's response</b>				<b>Date : 12/09/2022</b>
<i>The first commissioning date has been taken in order to avoid any loss in the credits arising from the first plant. Otherwise, the project owner will lose carbon credit.</i>				
<b>Documentation provided by Project Owner's</b>				
<i>Revised PSF.</i>				
<b>GCC Verifier assessment</b>				<b>Date: 19/09/2022</b>
The start date of the crediting period is now rectified in the PSF. CL05 is closed.				

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

<b>CAR</b>	01	<b>Section no.</b>	A.3	<b>Date : 04/07/2022</b>
<b>Description of CAR</b>				
The following details are not adequately presented:				
<ul style="list-style-type: none"> <li>- Type of PV modules used is not clear (whether Mono / Poly Crystalline Technology)</li> <li>- Details of Inverter</li> <li>- Type of structure used for solar panel mounting</li> </ul>				
<b>Project Owner's response</b>				<b>Date : 12/09/2022</b>
<i>In "Table 2. Technical Details of Modules" and "Table 3. Technical Details of Inverters", all details mentioned above have been added.</i>				



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<b>Documentation provided by Project Owner's</b>	
LoD	
<b>GCC Verifier assessment</b>	<b>Date: 19/09/2022</b>
The dimensions of solar panel modules provided in the PSF are not matching with the ones provided in the technical details of modules and the type of solar panel mounting used in the project is still not given. CAR01 is still open.	
<b>Project Owner's response</b>	<b>Date : 18/10/2022</b>
<i>The dimensions of solar panel modules has been mention in the all commissioning certificates, so kindly ignore the technical brochures. Type of Solar Panel has been mentioned in the PSF as a "Type" in the Table 2.</i>	
<b>Documentation provided by Project Owner's</b>	
<b>GCC Verifier assessment</b>	<b>Date: 26/04/2023</b>
The technical details mentioned in the PSF has been reviewed and verified. CAR01 is closed.	

<b>CAR</b>	02	<b>Section no.</b>	B.5 ,B.7	<b>Date :</b> 04/07/2022
<b>Description of CAR</b>				
The value of Benchmark chosen show's 2009. Please clarify?				
<b>Project Owner's response</b>				<b>Date :</b> 12/09/2022
<i>Because the first commissioning date of the projects is earlier than 2017 so, we couldn't use 2017 Benchmark, instead of that we used 2009 Benchmark.</i>				
<b>Documentation provided by Project Owner's</b>				
<i>Revised PSF.</i>				
<b>GCC Verifier assessment</b>				<b>Date: 19/09/2022</b>
The reasoning for the usage of The 2009 benchmark provided by the PO is found to be adequate. The serial number provided for the meters of Fatih ER are found to be incorrect. CAR02 is still open.				
<b>Project Owner's response</b>				<b>Date :</b> 19/10/2022
The meters of Fatih Er has been checked.				
<b>Documentation provided by Project Owner's</b>				
<i>Revised PSF.</i>				
<b>GCC Verifier assessment</b>				<b>Date:26/04/2023</b>
PO is to provide the reasoning, research, government document or the law which reinforces the fact that as project commissioning was before 2017 a 2009 benchmark can be used. CAR02 is open.				
<b>Project Owner's response</b>				<b>Date :26.04.2023</b>
The benchmark is changed due to previous benchmarks lack of data.				
<b>Documentation provided by Project Owner's</b>				
<i>Revised PSF</i>				
<b>GCC Verifier assessment</b>				<b>Date :03/05/2023</b>
The revisions made in the benchmark calculations have been reviewed and verified. CAR02 is closed.				

<b>CAR</b>	03	<b>Section no.</b>	Excel Sheet (J13, J14 and J15)	<b>Date :</b> 04/07/2022
<b>Description of CAR</b>				
The "Parameters" column states Electricity generation, Reduction of PM2.5 and PM10 for Meldan Solar Power Plant Bundle. Why Meldan SPP Bundle? And on what basis 132.69GWh value have been calculated?				
<b>Project Owner's response</b>				<b>Date :</b> 12/09/2022
<i>The typo mistaken has been corrected.</i>				
<b>Documentation provided by Project Owner's</b>				
<i>Revised ER calculation sheet.</i>				
<b>GCC Verifier assessment</b>				<b>Date: 19/09/2022</b>
The corrections suggested above has been made in the ER sheet and is verified but the calculation method for 132.69GWh is still not given. CAR03 is still open.				

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<b>Project Owner's response</b>	<b>Date :</b> 19/10/2022
132.69GWh is a typo. It has been revised as a project capacity which is 19.254 GWh.	
<b>GCC Verifier assessment</b>	<b>Date:</b> 26/04/2023
The revisions made in the ER have been reviewed and verified.CAR03 is closed.	

<b>CAR</b>	04	<b>Section no.</b>	ER Excel Sheet	<b>Date :</b> 04/07/2022
<b>Description of CAR</b>				
Crediting period selection is not clear? Please Clarify?.				
<b>Project Owner's response</b>				<b>Date :</b> 12/09/2022
According to the Project-Standard-v3.1. of GCC: "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 year17 after the start date of the operations of the GCC Project Activity."				
Link: <a href="http://globalcarboncouncil.com/wp-content/uploads/2021/10/Project-Standard-v3.1.pdf">http://globalcarboncouncil.com/wp-content/uploads/2021/10/Project-Standard-v3.1.pdf</a>				
<b>Documentation provided by Project Owner's</b>				
ER Excel Sheet.				
<b>GCC Verifier assessment</b>				<b>Date:</b> 19/09/2022
The clarification provided is found to be adequate. CAR04 is closed.				

<b>CAR</b>	05	<b>Section no.</b>	IRR Excel Sheet	<b>Date :</b> 04/07/2022
<b>Description of CAR</b>				
Provide the IRR sheets for each PO as per the requirements addressing the investment analysis guidelines. Sensitivity on Generation is not provided. Clarify?				
<b>Project Owner's response</b>				<b>Date :</b> 12/09/2022
<i>Sensitivity analysis for electricity generation has been added in IRR Sheet and also all supporting documents (FSR) for IRR has been shared in LoD.</i>				
<b>Documentation provided by Project Owner's</b>				
20- Feasibility Study Reports of LoD.				
<b>GCC Verifier assessment</b>				<b>Date:</b> 19/09/2022
The sensitivity analysis has been provided in the revised IRR and PSF. CAR05 is closed.				

<b>CAR</b>	06	<b>Section no.</b>	E.1, S.2 and F	<b>Date :</b> 04/07/2022
<b>Description of CAR</b>				
Please provide the following for claims in the PSF: 1. Claims for environmental safeguards in the section E.1 2. Claims for social safeguards in the section S.1 3. And proof for claims on SDGs in section F.				
<b>Project Owner's response</b>				<b>Date :</b> 12/09/2022
<i>All documents are in the relevant folder.</i>				
<b>Documentation provided by Project Owner's</b>				
LoD.				
<b>GCC Verifier assessment</b>				<b>Date:</b> 19/09/2022
1.If PO wants to claim +1 for any waste management then it has to be included in the monitoring plan as a proper parameter with a monitoring plan. 2. Some employees appear to have not undergone the HSE training (Cafer Cao, Mehmet Cap). Please clarify. 3. Photos of the LSC meeting needs to be provided. CAR06 is still open.				
<b>Project Owner's response</b>				<b>Date :</b> 19/10/2022

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<ol style="list-style-type: none"> <li>1. Section B.7.1 has been revised.</li> <li>2. The missing HSE training documents has been shared in LoD-2.</li> <li>3. Photos of the LSC meeting has been shared in LoD-2.</li> </ol>	
<b>Documentation provided by Project Owner's</b>	
LoD-2	
<b>GCC Verifier assessment</b>	<b>Date: 26/04/2023</b>
Photos of LSC meeting and HSE training documents has not been received.CAR06 is open.	
<b>Project Owner's response</b>	<b>Date:26.04.2023</b>
They have been added in LoD3	
<b>Documentation provided by Project Owner's</b>	
LOD-3	
<b>GCC Verifier assessment</b>	<b>Date:03/05/2023</b>
The photos of the meeting and HSE training documents have been reviewed and verified.CAR06 is closed.	

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

<b>FAR ID</b>	01	<b>Section no.</b>		<b>Date:</b> 04/07/2022
<b>Description of FAR</b>				
Verifier should certify CORSIA Label (C+) till 31 Dec 2020. For first or subsequent verifications Host Country Authorization to be provided and same to be verified.				
<b>Project Owner's response</b>				<b>Date:</b> 12/09/2022
<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 Verifiers Conclusion	
		Description of Impact (both positive and negative)	Legal requirement / Limit	Do-No-Harm Risk Assessment			Risk Mitigation Action Plans		Do-No-Harm Residual Risk Assessment		Self-Declaration		3 <sup>rd</sup> Party Audit	
				Not Applicable (No actions required)	Harmless (No actions required)	Harmful (Actions required)	Operational Controls	Program of Risk Management Actions	Re-evaluate Risks	Monitoring	Explanation of Conclusion	The Project Activity will not cause any harm	Verification Process	Will the project activity cause any harm ?
<b>Environmental impacts on the identified categories<sup>10</sup> indicated below.</b>	Indicators for environmental impacts	Describe anticipated environmental impacts, both positive and negative from all sources (stationary and mobile), that may result from the Project Activity, within and outside the project boundary, over which the Project Owner(s) has control, and beyond what would reasonably be expected to occur in the absence of the Project Activity.	Describe the applicable national regulatory requirements /legal limits related to the identified risks of environmental impacts.	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> (No actions required)	If environmental impacts are anticipated, but are expected to be in compliance with applicable national regulatory requirements/ below the legal limits, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as <b>Harmless</b> (No actions required)	If environmental impacts are anticipated that will not be in compliance with the applicable national regulatory requirements or are likely to exceed legal limits, then the Project Activity is likely to cause harm (may be un-safe) and shall be indicated as <b>Harmful</b> (Actions required).	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> .	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 the risk of impacts that have been identified as <b>Harmful</b> .	Re-evaluate risks after Risk Mitigation Action Plans have been developed (refer to previous two columns) for impacts that have been identified as <b>Harmful</b> . Indicate whether the risks have been eliminated or reduced and, where appropriate, indicate them as <b>Harmless</b> (No actions required)	Describe the monitoring approach and the parameters to be monitored for each impact that has been identified as <b>Harmful</b> and described in the PSF (refer to Table 3).	Describe how the Project Owner has concluded that the Project Activity is likely to achieve the identified Risk Mitigation Action Plan targets for managing risks to levels that are unlikely to cause any harm.	Confirm that the Project Activity risks of negative environmental impacts are expected to be managed to levels that are unlikely to cause any harm (Mark +1 for <b>Yes</b> or and -1 for <b>No</b> )	Describe how the GCC Verifier has assessed that the Project Activity has adopted Risk Mitigation Action Plans to mitigate the risks of negative environmental impacts to levels that are unlikely to cause any harm.	Confirm whether the Project Activity is expected to manage risks of negative environmental impacts to levels that are unlikely to cause any harm (Mark +1 for <b>Yes</b> or and -1 for <b>No</b> )
<b>Environmental Safeguards</b>														
	SO <sub>2</sub> emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A			N/A

<sup>10</sup> sourced from the CDM SD Tool and the sample reports are available ( <https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx> )

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Environment - Air	<i>NO<sub>x</sub> emissions</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>CO<sub>2</sub> emissions</i>	The project reduces CO <sub>2</sub> emissions since it reduces the amount of fossil fuel used. Thus, air pollution decreases.	N/A	The project reduces CO <sub>2</sub> emissions in the baseline; hence the project will not cause any harm in this regard	-	-	N/A	N/A	N/A	The electricity generation will be monitored by using electricity meters. Thus, emission reduction will be calculated accordingly	The project is expected to result in lower CO <sub>2</sub> emission than the baseline throughout the crediting period	+1	The project is expected to result in lower CO <sub>2</sub> emission than the baseline throughout the crediting period	+1
	<i>CO emissions</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Suspended particulate matter (SPM) emissions</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Fly ash emissions</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Non-Methane Volatile Organic Compounds (NMVOCs)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Odor emissions</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Noise Pollution</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
Environment - Land	<i>Solid waste Pollution from Plastics</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Solid waste Pollution from Hazardous wastes</i>	Damaged solar panels on site can cause adverse environmental	N/A	N/A	Harmless	-	N/A	N/A	N/A	The details of the damaged and returned solar panel modules will	The project owner undertakes to manage the solar panel	+1	The project owner undertakes to manage the solar panel	+1

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	impacts if not managed well.									be kept in the records for future verifications. Damaged solar panels are disposed by licensed waste transport vehicle, regarding this waste invoices are generated.	module waste in an appropriate manner and in accordance with applicable laws and regulations.		module waste in an appropriate manner and in accordance with applicable laws and regulations.	
<i>Solid waste Pollution from Bio-medical wastes</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A		N/A	
<i>Solid waste Pollution from E-wastes</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A		N/A	
<i>Solid waste Pollution from Batteries</i>	There is no battery pollution which is anticipated during the operation of the project. It will be disposed in the future according to "Turkish Waste Management Regulation".	Turkish Waste Management Regulation	-	Harmless	-	N/A	N/A	N/A	N/A	Disposal of waste is monitored in case of solid waste pollution caused by batteries in the project site. Wastes are disposed by licensed waste transport vehicle, regarding this waste invoices are generated.	The project owner undertakes to manage the battery in compliance to the prevailing laws and regulations.	+1	The project owner undertakes to manage the battery in compliance to the prevailing laws and regulations.	+1
<i>Solid waste Pollution from end of life products/equipment</i>	If the solar panel modules have not been managed well after their end-	Waste Management Regulation <sup>11</sup>	-	Harmless	-	-	Damaged/defective solar module will be stored and	Harmless	Harmless	Details of damaged and returned solar modules will be retained	The project owner undertakes to manage the solar panel	+1	The project owner undertakes to manage the solar panel	+1

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		of-life, they might have negative impact for environment.						disposed of in accordance with national/local laws.		for future verification. Wastes are disposed by licensed waste transport vehicle, regarding this waste invoices are generated.	module waste in an appropriate manner and in accordance with applicable laws and regulations.		module waste in an appropriate manner and in accordance with applicable laws and regulations.	
	<i>Soil Pollution from Chemicals (including Pesticides, heavy metals, lead, mercury)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Soil erosion</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
<b>Environment - Water</b>	<i>Reliability/ accessibility of water supply</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Water Consumption from ground and other sources</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Generation of wastewater</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Wastewater discharge without/with insufficient treatment</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Pollution of Surface, Ground and/or Bodies of water</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Conserving mineral resources</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	



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<b>Environment – Natural Resources</b>	<i>Protecting/enhancing plant life</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Protecting/enhancing species diversity</i>	N/A	N/A	-	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Protecting/enhancing forests</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Protecting/enhancing other depletable natural resources</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Conserving energy</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Replacing fossil fuels with renewable sources of energy</i>	The project replaces fossil fuels with renewable sources of energy since it is a solar power plant.	There is no such legal limit.	N/A	-	-	N/A	N/A	N/A	The electricity generated from solar power will be monitored throughout the crediting period. You can see the data and monitoring records in B.7.1.	The generated electricity by the project activity will be continuously measured and the related CO <sub>2</sub> emission reduction will be calculated according to the applied methodology.	+1	The generated electricity by the project activity will be continuously measured and the related CO <sub>2</sub> emission reduction will be calculated according to the applied methodology.	+1
	<i>Replacing ODS with non-ODS refrigerants</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
<p><b>Note:</b> If the score is: (a) zero or greater, the overall impact is neutral or Negative and there is no net harm; and (b) less than zero, the overall impact is negative and there is net harm to Environment. Score is obtained after adding the individual scores in each of the rows in the last column of the above table.</p>														
<b>Net Score:</b>		<b>+5</b>												
<b>Project Owner's Conclusion in PSF:</b>		The Project Owner confirms that the Project Activity will not cause any net harm to the environment.												

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GCC Project Verifier's Opinion	The GCC Verifier certifies that the Project Activity is not likely to cause any net harm to Environment.	
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**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 Verifier's Conclusion	
		Description of Impact (both Negative and negative)	Legal requirement /Limit	Do-No-Harm Risk Assessment			Risk Mitigation Action Plans		Do-No-Harm Residual Risk Assessment		Self-Declaration		3rd Party Audit	
				Not Applicable (No actions required)	Harmless (No actions required)	Harmful (Actions required)	Operational Controls	Program of Risk Management Actions	Re-evaluate Risks	Monitoring	Explanation of Conclusion	The Project Activity will not cause any harm	Verification Process	Will the Project Activity cause any harm?
<b>Social impacts on the identified categories<sup>12</sup> indicated below.</b>	Indicators for social impacts	Describe the impacts on society and stakeholders, both Negative and negative, that may result from constructing and operating of the Project Activity.	Describe the applicable national regulatory requirements / legal limits related to the identified risks of social impacts.	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> (No actions required)	If social impacts are anticipated, but are expected to be in compliance with applicable national regulatory requirements/ legal limits, then it the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as <b>Harmless</b> (No actions required)	If social impacts are anticipated that will not be in compliance with the applicable national regulatory requirements / legal limits, then the Project Activity is likely to cause harm (may be unsafe) and shall be indicated as <b>Harmful</b>	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> .	Describe the Program of Risk Management Actions (refer to Table 3), focusing on additional actions (e.g., construction of crèche for workers) that will be adopted to reduce the risk of impacts that have been	Re-evaluate risks after Risk Mitigation Actions plans have been developed (refer to previous two columns) for impacts that have been identified as Harmful. Indicate whether the risks have been eliminated or reduced and, where appropriate, indicate them as <b>Harmless</b>	Describe the monitoring approach and the parameters to be monitored for each impact that has been identified as Harmful and to be described in the PSF (refer to Table 3).	Describe how the Project Owner has concluded that the Project Activity is likely to achieve the identified Risk Mitigation Action Plan targets for managing risks to levels that are unlikely to cause any harm.	Confirm that the Project Activity risks of negative social impacts are expected to be managed to levels that are unlikely to cause any		

<sup>12</sup> sourced from the CDM SD Tool and the sample reports are available ( <https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx> )

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						(Actions required).		identified as Harmful.	(No actions required)			harm (Mark +1 for Yes or -1 for No)		
<b>Social Safeguards</b>														
<b>Social - Jobs</b>	<i>Long-term jobs (&gt; 1 year) created/ lost</i>	The project creates long-term job opportunities for the operational period. 10 people have been employed as long-term workers.	Employment is made according to national employment regulations.	N/A	-	-	N/A	N/A	N/A	The number of people employed in the project will be monitored through SGK (Social Security Institution) records or payroll records.	Employment will be monitored and recorded. Labor law protects the employees. In addition, there are signed contracts between the project owner and the employees.	+1	Employment will be monitored and recorded. Labor law protects the employees. In addition, there are signed contracts between the project owner and the employees.	+1
	<i>New short-term jobs (&lt; 1 year) created/ lost</i>	The project creates short term job opportunities during construction.	All employments are done according to the national employment regulations.	N/A	-	-	N/A	N/A	N/A	The number of people employed in the project will be monitored through SGK (Social Security Institution) records or payroll records.	Employment will be monitored and recorded. Labor law protects the employees. In addition, there are signed contracts between the project owner and the employees.	+1	Employment will be monitored and recorded. Labor law protects the employees. In addition, there are signed contracts between the project owner and the employees.	+1

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	<i>Sources of income generation increased / reduced</i>	The project increases income by creating job opportunities	All payments and right comply with the Labor Law. <sup>13</sup>	N/A	-	-	N/A	N/A	N/A	The number of people employed in the project will be monitored through payroll records.	When necessary, statement of employment can be provided. Regarding this, when needed, new employees can be recruited from nearby villages. Therefore, there are signed contracts between the project owner and the employees.	+1	When necessary, statement of employment can be provided. Regarding this, when needed, new employees can be recruited from nearby villages. Therefore, there are signed contracts between the project owner and the employees.	+1
	<i>Avoiding discrimination when hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities</i>	NA	NA	-	NA	-	-	-	-	NA	NA.	NA	NA	NA
<b>Social - Health &amp; Safety</b>	<i>Disease prevention</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Reducing / increasing accidents</i>	Occupational accidents at the site may be occurred.	All trainings and precautions are completed according to	N/A		-	N/A	N/A	N/A	Records of trainings will be provided.	Occupational health and safety training is provided to all	+1	Occupational health and safety training is provided to all employees regularly.	+1

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			the HSE Law <sup>14</sup> .								employees regularly.			
	<i>Reducing / increasing crime</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Reducing / increasing food wastage</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Reducing / increasing indoor air pollution</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Efficiency of health services</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Sanitation and waste management</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Disease prevention</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Other health and safety issues</i>	-	-	-	-	-	-	-	-	-	-	-	No risks identified	
<b>Social - Education</b>	<i>Job related training imparted or not</i>	N/A	-	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Educational services improved or not</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	
	<i>Project-related knowledge dissemination effective or not</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	

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	<i>Other educational issues</i>	-	-	-	-	-	-	-	-	-	-	-	No identified risks	-
<b>Social - Welfare</b>	<i>Improving/deteriorating working conditions</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	No identified risks	0
	<i>Community and rural welfare</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	<i>Poverty alleviation (more people above poverty level)</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	No identified risks	-
	<i>Improving / deteriorating wealth distribution/generation of income and assets</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	No identified risks	-
	<i>Increased or / deteriorating municipal revenues</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	No identified risks	-
	<i>Women's empowerment</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA		-
	<i>Reduced / increased traffic congestion</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	No identified risks	-
	<i>Other social welfare issues</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	No identified risks	-
	<i>Child Labour /Forced Labour</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	No risks identified	0

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	<i>Social inequality</i>	NA	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	No risks identified	0
<p><b>Note:</b> If the score is: (a) zero or greater, the overall impact is neutral or Negative and there is no net harm; and (b) less than zero, the overall impact is negative and there is net harm to society. Score is obtained after adding the individual scores in each of the rows in the last column of the above table.</p>														
<b>Net Score:</b>		+ 4												
<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 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					Project Owner(s)'s Conclusion		GCC Project Verifier's Conclusion (to be included in Project Verification Report only)	
			Project-level SDGs	Project-level Targets/ Actions	Project-level Indicators	Contribution of Project-level Actions to SDG Targets	Monitoring	Explanation of Conclusion	Are Goal/ Targets Likely to be Achieved ?	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.</p> <p><b>For guidance see:</b> Integrating the SDGs into Corporate Reporting- A Practical Guide: <a href="https://www.unglobalcompact.org/docs/publications/Practical_Guide_SD_G_Reporting.pdf">https://www.unglobalcompact.org/docs/publications/Practical_Guide_SD_G_Reporting.pdf</a></p>	<p>Define project-level targets/actions, by suitably modifying and customizing UN/Country-level targets to the project scope. Define the target date by which the Project Activity is expected to achieve the project-level SDG target(s). Refer to the previous column for guidance</p>	<p>Define project-level indicators by suitably modifying and customizing UN/Country-level indicators to the project scope or creating a new indicator(s). Refer to the previous column for guidance</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 and is additional to what would have occurred in the absence of the Project Activity</p>	<p>Describe the monitoring approach and the monitoring parameters to be applied for each project-level SDG target and Indicator</p>	<p>Describe how the Project Owner has concluded 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>		

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			<p><i>Case-study from Coca-Cola and other organizations to develop organization-wide SDGs (page 114):</i>  <a href="https://pub.ige.s.or.jp/pub/realising-transformative-potential-sdgs">https://pub.ige.s.or.jp/pub/realising-transformative-potential-sdgs</a></p>								
<b>Goal 1: End poverty in all its forms everywhere</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Goal 3. Ensure healthy lives and promote well-being for all at all ages</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Goal 5. Achieve gender equality</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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and empower all women and girls												
<b>Goal 6. Ensure availability and sustainable management of water and sanitation for all</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	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. Related indicator: 7.2.1 Renewable energy share in the total final energy consumption.	Yes	Increasing the share of renewable energy sources in the total electricity generation delivered to the national grid	Generate 19,254 MWh clean energy annually.	To increase the share of electricity generation capacity installed from renewable energy sources.	The project increases the share of renewable energy in Türkiye’s energy generation mix by providing clean energy. The plant provides 19,254 MWh of clean energy to the grid annually.	Calculate the share of installed capacity from renewable energy.	The commissioning date of project is 2016. Project continues to produce clean energy without any problems.	Yes	The commissioning date of project is 2016. Project continues to produce clean energy without any problems.	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 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”. Related indicator: 8.5.1 Average	Yes	Generating income and job opportunities	Providing employment opportunities for at least 10 people	Recruitment of at least 10 people, including people with disabilities	The project generate employment for both operation and construction period and created long-term employment for the people working at the construction site.	The number of people employed in the project will be monitored through SGK (Social Security Institution) records or payroll records.	Personnel have been employed by the project owner according to the regulations and the social security payments of the personnel are made regularly.	Yes	Personnel have been employed by the project owner according to the regulations and the social security payments of the personnel are made regularly.	Yes	

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	hourly earnings of female and male employees, by occupation, age and persons with disabilities										
<b>Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</b>	SDG Target 9.4 "By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities". Related indicator: 9.4.1 CO2 emission per unit of value added	Yes	Provides a clean and resilient power generation facility. Project activity deliver zero emission because the infrastructure will be upgraded sustainably by generating and transmitting electricity to the grid using clean and environmentally sound solar technology.	From the start of the project, the project activity will generate electricity with zero emissions. That is, the emission for 1 net MWh of electricity produced will be 0 tCO2.	Providing clean energy and reducing greenhouse gas emissions per year.	The solar power plant contributes directly to the SDG. Because if the project activity did not use renewable energy, it would produce electricity using fossil fuels and this would also prevent the establishment of environmentally sound technology.	The project has produced clean energy by implementing a solar power plant and helps the adaptation of clean and environmentally sound technologies. The net electricity supplied to the grid by the project activity is continuously monitored through main and spare meters. The meters remain under the custody of state utility.	The project owner has been operating the facility since 2016 and complies with the Goal 9 so far.	Yes	The project owner has been operating the facility since 2016 and complies with the Goal 9 so far.	Yes
<b>Goal 10. Reduce inequality within and among countries</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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<p><b>Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable</b></p>	<p>SDG Target 11.6 "By 2030, reduce the adverse per capita environmental impacts of cities, including by paying special attention to air quality and municipal and other waste management." Indicator 11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)</p>	<p>Yes</p>	<p>Decrease the amount of PM2.5 and PM10 emissions in the cities</p>	<p>Reduction of PM2.5 is 0.0028 µg/m<sup>3</sup>. and reduction of PM10 is 0.0060 µg/m<sup>3</sup>.</p>	<p>Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)</p>	<p>As known, fossil fuel emissions are secondary sources of PM2.5 and PM10 in the cities. Since the project reduces the use of fossil fuels, PM2.5 and PM10 formation will be reduced accordingly. Hence, the project helps to improve air quality in cities.</p>	<p>PM2.5 and PM10 have been recorded by Ministry of Environment Urbanization and Climate Change and you can see the ER calculation sheet excel.  PM2.5 and PM10 were measured in implementation of the project activity several times. The measurement will be conducted by project owner after 5 years. Also, General Directorate of Meteorology measures these levels regularly.</p>	<p>Project Owner operates the plant since 2016 and complies with targeted SDGs so far</p>	<p>Yes</p>	<p>Project Owner operates the plant since 2016 and complies with targeted SDGs so far</p>	<p>Yes</p>
<p><b>Goal 12. Ensure sustainable consumption and production patterns</b></p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p><b>Goal 13. Take urgent action to combat climate change and its impacts</b></p>	<p>SDG Target 13.3 "Improve education, awareness-raising and human and</p>	<p>Yes</p>	<p>Eliminate 12,480 tCO<sub>2</sub> annually</p>	<p>Commissioning of 19,254 MWh renewable energy power plant</p>	<p>Reducing greenhouse gas emissions by 12,480 tCO<sub>2</sub></p>	<p>Since wind energy is used in the project, there is no greenhouse gas emission</p>	<p>Calculate avoided GHG emissions every year.</p>	<p>The plant is operated since 2016 by project owner and complied</p>	<p>Yes</p>	<p>The plant is operated since 2016 by project owner and complied</p>	<p>Yes</p>

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	institutional capacity on climate change mitigation, adaptation, impact reduction and early warning". Related indicator: 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions				tons annually.	related to the project activity. Eliminates 12,480 tCO <sub>2</sub> annually.		with targeted SDGs so far.		with targeted SDGs so far.	
<b>Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification,</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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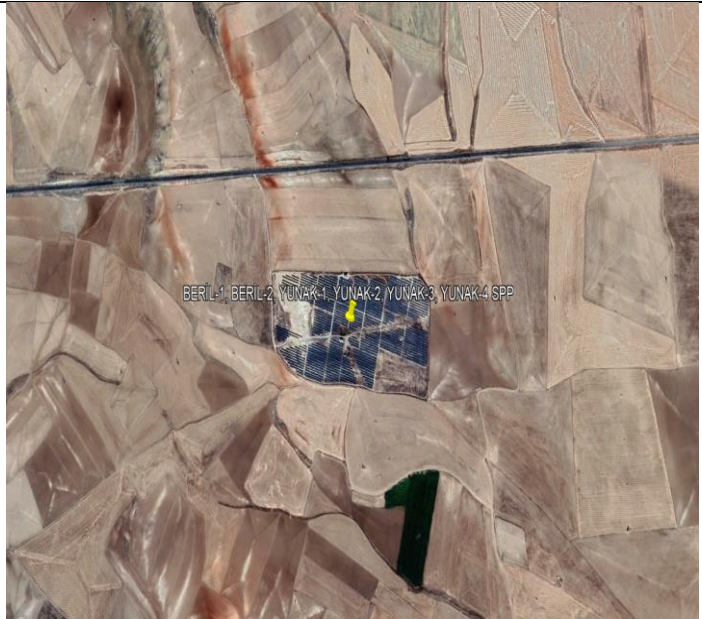
and halt and reverse land degradation and halt biodiversity loss													
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
<b>SUMMARY</b>										<b>Targeted</b>		<b>Likely to be Achieved</b>	
Total Number of SDGs										+3		+3	
Certification label (Bronze, Silver, Gold, Platinum, or Diamond) for the ACCs as defined in the PSF										Silver		Silver	



Appendix 8. Project Implementation and Monitoring Photographs

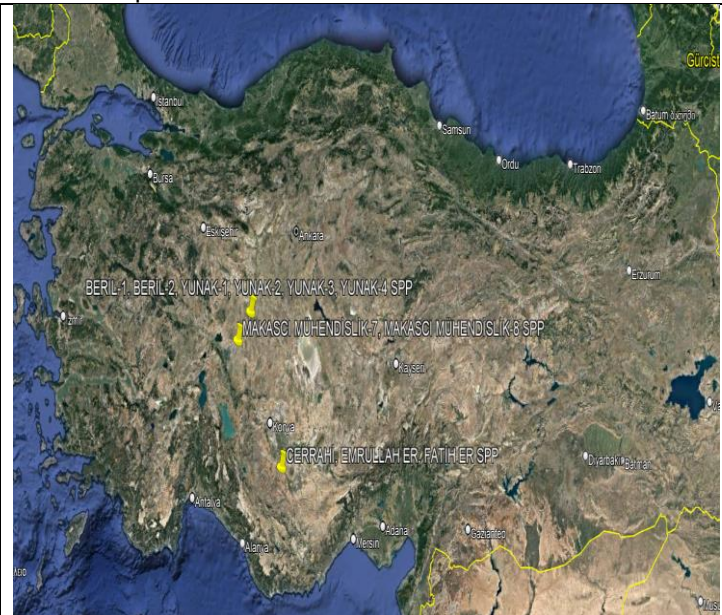


Over all view of Project Installation



Over all view of Project Installation

Project Verification Report



Solar Installation Verification. & Location Verification



Solar Installation Verification. & Location Verification

## 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>15</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>15</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)

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