المجلس العالمي للبصمة الكربونية
GLOBAL CARBON COUNCIL

Project Verification Report

V3.1 - 2020

CONTENTS

COVER PAGE Project Verification Report Form (PVR)	
BASIC INFORMATION	
Name of approved GCC Project Verifier / Reference No. (also provide weblink of approved GCC Certificate)	4K Earth Science Private Limited https://www.globalcarboncouncil.com/wp-content/uploads/2021/12/GCCV005-00_4KES_GCC-Verifier-Certificate_13122021.pdf
Type of Accreditation	☐ Individual Track[1] ☒ CDM Accreditation (Active accreditation from United Nations Framework Convention on Climate Change valid till 14.06.2024 Ref. Number CDM-E-0069 https://cdm.unfccc.int/DOE/list/DOE.html?entityCode=E-0069) ☐ ISO 14065 Accreditation
Approved GCC Scopes and GHG Sectoral scopes for Project Verification	GHG Sectoral Scope: Scope 1 - Energy (renewable/non-renewable sources) GCC Scopes: Environmental No-harm (E+) Social No-harm (S+) Sustainable Development Goals (SDG+)
Validity of GCC approval of Verifier	13/12/2021 to 12/12/2023.
Title, completion date, and Version number of the PSF to which this report applies	**Makascı-9 Solar Power Plant Bundle** Version: 1.5 dated 16/05/2023
Title of the project activity	**Makascı-9 Solar Power Plant Bundle**
Project submission reference no. (as provided by GCC Program during GSC)	S00224
Eligible GCC Project Type[2] as per	☒ **Type A:** ☐ Type A1 ☒ Type A2 (Sub-Type 1)

[1] **Note:** GCC Verifier under Individual tack is not eligible to conduct verifications for the GCC project that intends to supply carbon credits (ACCs) for CORSIA requirements.

[2] Project Types defined in Project Standard and Program Definitions on GCC website.

<table>
<tr><td>the Project Standard
(Tick applicable project type)</td><td>☐ Type B – De-registered CDM Projects:
☐ Type B1
☐ Type[3] B2</td></tr>
<tr><td>Date of completion of Local stakeholder consultation</td><td>21/04/2022</td></tr>
<tr><td>Date of completion and period of Global stakeholder consultation. Have the GSC comments been verified. Provide web-link.</td><td>31/05/2022 GSC was conducted between 17/05/2022 to 31/05/2022
https://www.globalcarboncouncil.com/global-stakeholders-consultation/
No comments were received during the GSC period.</td></tr>
<tr><td>Name of Entity requesting verification service
(can be Project Owners themselves or any Entity having authorization of Project Owners)</td><td>Desilyon Danışmanlık Ticaret A.Ş. On behalf of Esyel Global Elektrik Üretim A.Ş.</td></tr>
<tr><td>Contact details of the representative of the Entity, requesting verification service
(Focal Point assigned for all communications)</td><td>Mr. Serkan KORKMAZ,
Desilyon Danışmanlık Ticaret A.Ş.,
Mahall Ankara B-Blok No:37, Mustafa Kemal Mah. Dumlupınar Bulv. No:274, B-Blok No:37 Çankaya/Ankara.
Mobile: +90 531 280 80 40
Tel: +90 312 473 4030
Email: serkan.korkmaz@desilyon.com.tr</td></tr>
<tr><td>Country where project is located</td><td>Türkiye</td></tr>
<tr><td>GPS coordinates of the Project site(s)</td><td>
<table>
<tr><th>#</th><th>Name of SPP</th><th>Coordinates (Decimal Degrees)</th><th>Coordinates (Degrees, minutes, seconds)</th></tr>
<tr><td>1</td><td>GÜMÜŞLÜER ENERJİ-3 GES</td><td>38.468018°
34.717850°</td><td>38°28'4.86"N
34°43'4.26"E</td></tr>
<tr><td>2</td><td>ORHANİYE-5 GES</td><td>38.494700°
30.870300°</td><td>38°29'40.92"N
30°52'13.08"E</td></tr>
<tr><td>3</td><td>GÜMÜŞLÜER ENERJİ-5 GES</td><td>38.467505°
34.716274°</td><td>38°28'3.02"N
34°42'58.59"E</td></tr>
<tr><td>4</td><td>AKŞEHİR YSR-2 GES</td><td>38.028500°
30.806700°</td><td>38° 1'42.60"N
30°48'24.12"E</td></tr>
<tr><td>5</td><td>HAYIT GES</td><td>38.160180°
33.178482°</td><td>38° 9'36.65"N
33°10'42.54"E</td></tr>
<tr><td>6</td><td>DERİN ENERJİ-2 GES</td><td>38.468634°
34.716522°</td><td>38°28'7.08"N
34°42'59.48"E</td></tr>
</table>
</td></tr>
</table>

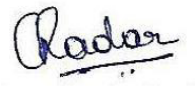
[3] GCC Project Verifier shall conduct Project Verification for all project types except B_2.

	7	LARİVA ENERJİ-1 GES	38.468393° 34.714915°	38°28'6.21"N 34°42'53.69"E
	8	AHH ENERJİ GES	37.715507° 33.354223°	37°42'55.82"N 33°21'15.20"E
	9	AAB ENERJİ GES	37.714869° 33.354310°	37°42'53.53"N 33°21'15.52"E
	10	GÜMÜŞLÜER ENERJİ-2 GES	38.466837° 34.714560°	38°28'0.61"N 34°42'52.42"E
	11	GİTAŞ GIDA GES	37.714954° 33.353965°	37°42'53.83"N 33°21'14.27"E
	12	AYD ENERJİ GES	37.715248° 33.353515°	37°42'54.89"N 33°21'12.65"E
	13	GİTAŞ ENERJİ GES	37.714238° 33.353871°	37°42'51.26"N 33°21'13.93"E
	14	GORA GES	37.834100° 38.280300°	37°50'2.76"N 38°16'49.08"E
	15	ORHANİYE-2 GES	38.495500° 30.869300°	38°28'4.86"N 34°43'4.26"E

Applied methodologies (approved methodologies of GCC or CDM can be used)	AMS-I.D: "Grid-connected electricity generation from renewable sources" (Version 18.0)
GHG Sectoral scopes linked to the applied methodologies	GHG-SS: Scope 1 Energy (renewable/non-renewable sources)
Project Verification Criteria: Mandatory requirements to be assessed	☒ ISO 14064-2, ISO 14064-3 ☒ GCC Rules and Requirements ☒ Applicable Approved Methodology ☒ Applicable Legal requirements /rules of host country ☒ National Sustainable Development Criteria (if any) ☒ Eligibility of the Project Type ☒ Start date of the Project activity ☒ Meet applicability conditions in the applied methodology ☒ Credible Baseline ☒ Additionality ☒ Emission Reduction calculations ☒ Monitoring Plan ☒ No GHG Double Counting ☒ Local Stakeholder Consultation Process ☒ Global Stakeholder Consultation Process ☒ United Nations Sustainable Development Goals (Goal No 13- Climate Change) ☐ Others (please mention below)

Project Verification Criteria: Optional requirements to be assessed	☒ Environmental Safeguards Standard and do-no-harm criteria ☒ Social Safeguards Standard do-no-harm criteria ☒ United Nations Sustainable Development Goals (in additional to SDG 13) ☒ CORSIA requirements
Project Verifier's Confirmation: The *GCC Project Verifier* has verified the GCC project activity and therefore confirms the following:	The GCC Project Verifier 4K Earth Science Private Limited certifies the following with respect to the GCC Project Activity "Makascı-9 Solar Power Plant Bundle". ☒ The Project Owner has correctly described the Project Activity in the Project Submission Form (version 1.5 dated 16/05/2023) including the applicability of the approved methodology *AMS-I.D Version 18.0* 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. ☒ The Project Activity is likely to generate GHG emission reductions amounting to the estimated 141,468 tCO_{2e} over the crediting period of ten years, as indicated in the PSF, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2 and ISO 14064-3. ☒ 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: ☒ Environmental No-net-harm Label (**E⁺**) ☒ Social No-net-harm Label (**S⁺**) ☒ 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[4] SDG certification label (**SDG⁺**): ☐ Bronze SDG Label ☐ Silver SDG Label ☐ Gold SDG Label ☒ Platinum SDG Label ☐ Diamond SDG Label ☒ The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.3 paragraph 21-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project

[4] 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.

	☒ The Project Activity complies with all the applicable GCC rules[5] and therefore recommends GCC Program to register the Project activity with above mentioned labels.
Project Verification Report, reference number and date of approval	1.2, dated 16/05/2023 Ref No: 22066-GCC-PV
Name of the authorised personnel of GCC Project Verifier and his/her signature with date	Chandrakala R  Managing Director

[5] "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-9 Solar Power Plant Bundle consists of 15 individual Unlicensed Solar Power Plants with a capacity of 14.861 MWp (DC) / 13.883 MWe (AC) 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 in different regions of Nevşehir, Afyonkarahisar, Isparta, Konya and Adıyaman provinces in Türkiye. 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_2 emission from electricity generation by fossil fuel power plants connected to Turkish National Power Grid. Total installed capacity is 13.883 MWe. Until 2020 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 8,312 MWh. For 2017, generated energy is expected to be as 8,980 MWh, and for 2018 generated energy is expected to be as 21,404 MWh. For 2019, generated energy is expected to be as 22,360 MWh. According to the calculations after 2019, the annual net electricity supplies by the project plan is 23,777 MWh/yr. Moreover, the last year generated energy is expected to be 14,527 MWh because end date of crediting period which is between 01/01/2026 and 11/08/2026 for 2026. Therefore, the average annual generated energy is expected to be 21,825 MWh after all of the plants are activated. The project will be able to deliver a reduction in emissions of around 14,147 tCO_2e (tons of carbon dioxide equivalent) per annum averagely. For the entire crediting period, 141,468 tons of CO_2e are expected to be reduced.

The Location details of each project locations are below,

Address and geodetic coordinates of the physical site of the Project Activity				
#	**Name of SPP**	**Physical address**	**Coordinates (Decimal Degrees)**	**Coordinates (Degrees, minutes, seconds)**
1	GÜMÜŞLÜER ENERJİ-3 GES	Nevşehir Province Merkez District Kaymaklı Village	38.468018° 34.717850°	38°28'4.86"N 34°43'4.26"E
2	ORHANİYE-5 GES	Afyonkarahisar Province Çay District Orhaniye Village	38.494700° 30.870300°	38°29'40.92"N 30°52'13.08"E
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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
- Remote audit assessment, background investigation and follow-up interviews with personnel of the project owner and its representatives.
- Draft verification reporting based on the audit findings and desk review of the PSF.
- Resolution of corrective actions (if any)
- Final Verification report based on the closure of corrective actions
- Technical review of the final verification opinion along with other documents by the independent competent technical review team
- Final approval of the final verification opinion

Conclusion:

The review of the PSF, supporting documentation and the subsequent follow-up interviews have provided 4KES with sufficient evidence to determine the project's fulfillment of all the stated criteria. In our opinion, the project activity "Makascı-9 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., v1.3 paragraph 21-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during

all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project

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	Acharya	Swati S	Central Office	X	-	X	X

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of GCC Project Verifier or outsourced entity)
1.	Technical reviewer	EI	Badaya	Rohit	Central Office
2	Approver	IR	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., remote audit, electronic (telephone or e-mail) interviews) and also the review of the applicable approved methodological and relevant tools, guidance and GCC decisions. Additionally, the cross checks were performed for information provided in the PSF using information from sources other than the verification sources, the project verification team's sectoral or local expertise and, if necessary, independent background investigations

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

C.2. On-site inspection

Duration of Remote Audit: 24/06/2022				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	Opening Meeting	-	24/06/2022	M. P. Kanal (Remote audit was conducted)
2	Verification of Installation and monitoring procedure of the project activity.		24/06/2022	
3	Document Review & Closing Meeting		24/06/2022	Swati S Acharya (Remote audit was conducted)

According to paragraph 29 of Verification Standard/3/, on-site visit is not mandatory for the Project Activities if the estimated average annual GHG emission reductions or net anthropogenic GHG removals are less than 100,000 t $CO_{2\,eq}$ and there is no pre-project information that is relevant to the registration requirements for the project activity and may not be traceable after the registration since the project has been operational since 11/08/2016

Project Verification team performed the Google Meet remote interview on 24/06/2022 and interviewed PO representative/ Consultant and reviewed documents to achieve a reasonable level of assurance in the verification. The interview details are provided in the section C.3.

C.3. Interviews

No.	Interview			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Sezen	Alper	PO side	24/06/2022	• Project Implementation status • Project Boundary • Methodology Eligibility criteria • Host country Requirements • Monitoring Plan • Project activity start date and Crediting period • Roles and responsibilities of the project owner • Baseline assumptions • Emission reduction calculations • Additionality • Training to the Monitoring personnel • Legal Ownership of the project activity • Double counting of the carbon credits of the project activity • E+, S+, SDG+ and CORSIA aspects as per the PSF and GCC requirements	M. P. Kanal (Remote audit was conducted) Swati S Acharya (Remote audit was conducted)
2.	Akdag	Baharsu	Desilyon side			
3.	Erol	Ceren	Desilyon side			
4.	Dilara Kilic	Beyza	Desilyon side			
5.	Topal	Mustafa	Local Stakeholder			
6.	Sağlam	Adem	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
Green House Gas (GHG)				
Identification and Eligibility of project type	A_1, A_2, B_1, B_2	1	3	-
General description of project activity	A_1, A_2, B_1, B_2	2	1	-
Application and selection of methodologies and standardized baselines	A_1, A_2, B_1, B_2	-	-	-
- Application of methodologies and standardized baselines	A_1, A_2, B_1, B_2	-	1	-
- Deviation from methodology and/or methodological tool	A_1, A_2, B_1, B_2	-	-	-
- Clarification on applicability of methodology, tool and/or standardized baseline	A_1, A_2, B_1, B_2	-	-	-
- Project boundary, sources and GHGs	A_1, A_2, B_1, B_2	-	-	-

- Baseline scenario	A_1, A_2, B_1, B_2	-	-	-
- Demonstration of additionality including the Legal Requirements test	A_1, A_2, B_1, B_2	-	-	-
- Estimation of emission reductions or net anthropogenic removals	A_1, A_2, B_1, B_2		-	-
- Monitoring plan	A_1, A_2, B_1, B_2	-	-	-
Start date, crediting period and duration	A_1, A_2, B_1, B_2	-		-
Environmental impacts	A_1, A_2, B_1, B_2	-	-	-
Local stakeholder consultation	A_1, A_2, B_1	-	-	-
Approval & Authorization- Host Country Clearance	A_1, A_2, B_1, B_2	-	-	-
Project Owner- Identification and communication	A_1, A_2, B_1, B_2	-	-	-
Global stakeholder consultation	A_1, A_2, B_1	-	-	-
Others (please specify)	A_1, A_2, B_1, B_2	-	-	-
VOLUNTARY CERTIFICATION LABELS				
Environmental Safeguards (E^+)	A_1, A_2, B_1	-	1	-
Social Safeguards (S^+)	A_1, A_2, B_1		-	
Sustainable development Goals (SDG^+)	A_1, A_2, B_1	-	1	-
Authorization on Double Counting from Host Country (only for CORSIA)	A_1, A_2, B_1	-	-	1
CORSIA Eligibility (C^+)		-	-	-
Total	-	3	7	1

Section D. Project Verification findings

D.1. Identification and eligibility of project type

Means of Project Verification	The project is eligible under Type A2 (Sub-Type1) category as per GCC Project standard/2/ and Clarification No 01/25/ which is acceptable since the project has not been registered under any GHG program and the program operations started since 11/08/2016 which is the earliest commissioning date of the solarpower plant involved in the project activity. The commissioning documents/15/ of all the solar power plants involved in the project activity has been verified in this regard and found in order. Further following project meets the Type A2 (Sub-Type 1) project category as: • 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., Electricity Market Law/42/, Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy/43/, Energy Efficiency Law/44/, Forest Law/45/, Environment Law/46/. • It complies with all the applicable host country legal requirements and it ensures compliance with legal requirements. The project is a renewable energy project activity and meets the host country requirements of sustainable development criteria. According to the Energy and Natural Resources Ministry, each solar power plant owners at the time of commissioning by Turkey Distribution Corporation General Electricity Department 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. • The project also delivers real, measurable and additional emission reduction of 141,468 tCO_2e (entire crediting period) as compared to the baseline scenario • Project applies an approved CDM monitoring and baseline methodology AMS I.D: “Grid-connected electricity generation from renewable sources” (Version 18.0)

Findings	CL 01 is raised and closed successfully.
Conclusion	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 of GCC Version 1.2 /25/ which was verified from the documents submitted by the project owner. Further project verification team cross checked the Clean Development Mechanism (CDM) website/34/, VERRA website/11/, Gold Standard (GS) website/48/, confirmed that the project was not submitted or registered under any other GHG programs like International REC Standard (I-REC)/49/ for the information regarding the consistency of the title of the project activity , GPS coordinates, Legal Ownership of the Project activity and confirmed that the project was not submitted or registered under any other GHG programmes and non-voluntary non-GHG Programs.

D.2. General description of project activity

Means of Project Verification

Makascı-9 Solar Power Plant Bundle consists of 15 individual Unlicensed Solar Power Plants with a capacity of 14.861 MWp (DC) / 13.883 MWe (AC) 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 in different regions of Nevşehir, Afyonkarahisar, Isparta, Konya and Adıyaman provinces in Türkiye. 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_2 emission from electricity generation by fossil fuel power plants connected to Turkish National Power Grid. Total installed capacity is 13.883 MWe. Until 2020 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 8,312 MWh. For 2017, generated energy is expected to be as 8,980 MWh, and for 2018 generated energy is expected to be as 21,404 MWh. For 2019, generated energy is expected to be as 22,360 MWh. According to the calculations after 2019, the annual net electricity supplies by the project plan is 23,77 MWh/yr. Moreover, the last year generated energy is expected to be 14,527 MWh because end date of crediting period which is between 01/01/2026 and 11/08/2026 for 2026. Therefore, the average annual generated energy is expected to be 21,825 MWh after all of the plants are activated. The project will be able to deliver a reduction in emissions of around 14,147 tCO_2e (tons of carbon dioxide equivalent) per annum averagely. For the entire crediting period, 141,468 tons of CO_2e are expected to be reduced.

The technical details of the main equipment for the project are given below table

No	Name of SPP	Number of Modules	Installed Capacity (kWp)	Installed Capacity (kWe)	Module Manufacturer
1	GÜMÜŞLÜER ENERJİ-3 GES	2000	540	500	Endüstriyel
2	ORHANİYE-5 GES	2552	689.04	650	QCELLS

3	GÜMÜŞLÜER ENERJİ-5 GES	3146	849.42	800	Endüstriyel
4	AKŞEHİR YSR-2 GES	3806	1046.65	999	Endüstriyel
5	HAYIT GES	4004	1041.04	990	Endüstriyel
6	DERİN ENERJİ-2 GES	4004	1061.06	990	ZAHIT
7	LARİVA ENERJİ-1 GES	4004	1061.06	990	ZAHIT
8	AHH ENERJİ GES	5920	1006.40	1000	Solar Frontier
9	AAB ENERJİ GES	5920	1006.40	1000	Solar Frontier
10	GÜMÜŞLÜER ENERJİ-2 GES	3960	1069.20	990	Cw Enerji
11	GİTAŞ GIDA GES	6240	1060.80	1000	Solar Frontier
12	AYD ENERJİ GES	6240	1060.80	1000	Solar Frontier
13	GİTAŞ ENERJİ GES	6240	1060.80	1000	Solar Frontier
14	GORA GES	4400	1144	999	Jinko Solar
15	ORHANİYE-2 GES	4312	1164.24	975	QCELLS
Total	-	-	**14,860.91**	**13,883.00**	-

The project activity described as Type A2 (Sub-Type 1) and applied AMS- I.D: “Grid-connected electricity generation from renewable sources” (Version 18.0) falls into the small-scale category as per CDM methodology/9/.

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

Achieving the United Nations Sustainable Development Goals – (SDG)+5 out of 17 SDGs (Platinum)
Environmental No-net harm – E+ +5
Social No-net harm – (S+) +4
CORSIA – C+

	In the baseline scenario the main source of emission was found to be CO_2 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_2 emissions. Thus, non-application of GWP in this project activity was found to be acceptable as the project boundary does not include any of the GHG emissions in the project scenario as per the applied methodology. The description in the PSF includes sufficient details and provides clarity on the project activity The verification team also checked the GCC website and performed secondary research (internet) to determine if the project was part of any other GHG Program prior to commencement of this verification. It was confirmed that the involved project owners have not submitted the project under any other GHG program apart from GCC.
Findings	CL 02, CL 03, and CAR 01is raised and closed successfully.
Conclusion	The project description was verified based on the review of documents/15//17/. Based on the review of documents and by means of remote audit verification the details provided in the PSF is found acceptable and complete.

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

D.3.1 Application of methodology and standardized baselines

Means of Project Verification

Applicability criterion as per AMS-I D Version 18.0	**Verifier Assessment.**
Condition para 4: This methodology is applicable to grid-connected renewable energy power generation project activities that: • Install a Greenfield power plant; • Involve a capacity addition to (an) existing plant(s); • Involve a retrofit of (an) existing operating plants/units; • Involve a rehabilitation of (an) existing plant(s)/unit(s); or • Involve a replacement of (an) existing plant(s)/unit(s).	The project activity involves a new installation of greenfield solar power generation plant. Hence the methodology is applicable to the project activity.
Condition para 5: Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: (a) The project activity is implemented in an existing reservoir with no change in the volume of reservoir; (b) The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m^2;	The criterion is not applicable as the proposed project activity is not a hydro power plant.

	(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/m2.**	
	Condition para 6: If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.	. The project does not have non-renewable components. The project has only renewable components which has installed capacity is 13.883 MW. Therefore, the project activity is small scale.
	Condition para 7: Combined heat and power (co-generation) systems are not eligible under this category.	Since, the project is a greenfield renewable energy project the applicability criterion is not applicable
	Condition para 8: 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.	Since, the project is a greenfield renewable energy project the applicability criterion is not applicable
	Condition para 9: 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.	Since, the project is a greenfield renewable energy project the applicability criterion is not applicable
	Condition para 10: 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	Since, the project is a greenfield solar power project and not a landfill gas, waste gas, wastewater treatment and agro-industries projects, hence, the applicability criterion is not applicable

Type-I methodologies such as “AMS-I.C.: Thermal energy production with or without electricity” shall be explored.	
Condition para 11: In case biomass is sourced from dedicated plantations, the applicability criteria in the tool “Project emissions from cultivation of biomass” shall apply.	Since, the project is a greenfield solar power project and not related to biomass. the applicability criterion is not applicable.

TOOL07: Tool to calculate the emission factor for an electricity system; Version 07.0

Applicability criterion	**Verifier Assessment.**
This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	According to “Türkiye National Network Emission Factor Data Sheet”[6] document from Ministry of Energy and Natural Resources, the emission factor coefficient ($EF_{grid,CM,y}$) could be used as 0.6482 tCO_2/MWh. This emission factor is calculated by using “Tool to calculate the emission factor for an electricity system, version 07.0” /12/. Hence this tool is applicable.
Para 4 of the applied Tool: Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two suboptions 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 offgrid 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	The project activity has chosen the option to calculate the emission factor for grid power plants only. The point has been assessed in detail under section D.3.4 of the report. The criteria was found to be met.

[6] https://enerji.enerji.gov.tr/Media/Dizin/BHIM/tr/Duyurular//Bilgi_Formu_Web_Sitesi_2019_202110071443.pdf

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	
Para 5 of the applied tool: 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.	The project is applying registration under GCC Program which is a Middle East & North Africa (MENA) region's first voluntary carbon offsetting program. The Program permits the application of the CDM methodologies and tools however is applicable to all geographical locations. Hence the project which is located in Turkey an Annex I country.
Para 6 of the applied Tool: Under this tool, the value applied to the CO2 emission factor of biofuels is zero	There are no biofuel power plants in the Host country, hence the condition is not applicable

TOOL21: Demonstration of additionality of small-scale project activities (Version 13.1)

Applicability criterion	**Verifier Assessment.**
"The use of the methodological tool "Demonstration of additionality of small-scale project activities" is not mandatory for project participants when proposing new methodologies. Project participants and coordinating/managing entities may propose alternative methods to demonstrate additionality for consideration by the Executive Board."	Since the proposed project activity applies the methodological tool "Tool for the demonstration and assessment of additionality", this methodological tool is applicable to project activity.
Paragraph 9 states "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	As per above para, the GCC project activity is not found to be a debundled component. The project activity falls under the small-scale threshold limit.

(c) Registered within the previous 2 years; and (d) Whose project boundary is within 1 km of the project boundary of the proposed small- scale activity at the closest point.”	

TOOL27: Investment analysis, Version 11.0

Applicability criterion	**Verifier Assessment.**
This methodological tool is applicable to project activities that apply the methodological tool “Tool for the demonstration and assessment of additionality”, the methodological tool “Combined tool to identify the baseline scenario and demonstrate additionality”, the guidelines “Non-binding best practice examples to demonstrate additionality for SSC project activities”, or baseline and monitoring methodologies that use the investment analysis for the demonstration of additionality and/or the identification of the baseline scenario.	Since the proposed project activity applies the methodological tool “Tool for the demonstration and assessment of additionality”, this methodological tool is applicable to project activity.
Paragraph 3 states “In case the applied approved baseline and monitoring methodology contains requirements for the investment analysis that are different from those described in this methodological tool, the requirements contained in the methodology shall prevail.”	Since the proposed project activity applies the methodological tool “Tool for the demonstration and assessment of additionality”, this methodological tool is applicable to project activity.

TOOL20: Assessment of debundling for small-scale project activities (Version 04.0)

Applicability criterion	**Verifier Assessment.**
Paragraph 4 states “This methodological tool is applicable to proposed small-scale project activities and small-scale CPAs in order to check whether they are debundled components of largescale project activities.”	As per above para, the GCC project activity is not found to be a debundled component. The project activity falls under the small-scale threshold limit.

	Paragraph 9 states “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 (d) Whose project boundary is within 1 km of the project boundary of the proposed small- scale activity at the closest point.”	GCC’s Verifier has checked the CDM, GS, VCS and GCC registries and no other small scale project activity has been found to be registered or applied for registration by any of the 15 legal owners included in the bundle. Hence, (a) is found to be negative and the applicability is found to be met.

Requirements related to the Bundling of project activity:

GCC Clarification No. 1, version 1.3 /40/ specifies design requirements for any project activity having sub-bundles. The project activity is a bundle/activity of 15 solar power plants having same technology (Photovoltaic), same output (electricity) and same baseline (grid). The project activity also applies same small scale CDM approved baseline and monitoring methodology (AMS I.D) and additionality approach for the project bundles at bundle level.

Thus, the project activity is demonstrated assessed and classified as a homogonous bundle. As per para 11 of Clarification No 01, version 1.3, Level-1 analysis for Consideration of key aspects for developing Homogeneous Bundles is assessed.

Similarity in Technological Considerations: All activities in the bundle applies same type of technology of Solar PV based electricity generation as allowed by the applied Methodology AMS I.D.

Similarity in Economic and Policy Considerations: All Activities under bundle/project activity have applied the same additionality approach.

Similarity in Environmental or Methodological Considerations: The activities in the project have applied the single similar methodology, have same baseline and outcome and also have the same monitoring approach and parameters for the part included for GHG.

Further, assessment team is of the opinion that project activity have same technology (Solar PV based power) and methodology (AMS I.D, v18.0), has same baseline (which is national electricity grid), generate the same output (electricity), apply the same additionality approach. Even if not so,the project meets the bundling requirements of GCC Clarification No. 1, version 1.3 and the project owner has

	correctly applied the methodology, additionality, and ER calculation at bundle level and is in compliance with the requirements set out in clarification No 1.0, version 1.3.
Findings	CAR 02 is raised and closed successfully.
Conclusion	The verification teams confirms that approved methodology: AMS-I D- Grid-connected electricity generation from renewable sources" (Version 18.0) /9/ is applicable to the PSF/29/. All applicability conditions of the applied methodology and applicable Tools are being met and the PSF/29/ are in line with all the requirements indicated in the methodology. Related eligibility criteria with respect to the applicability of the methodologies 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

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

Means of Project Verification	Regarding to applied methodology AMS-I D Version 18.0; the project boundary is considered as the National Electricity Grid of Türkiye. The project boundary covers power plant and the other power plants which connected to the related electricity system. The verification team conducted desk review of the implemented project to confirm the appropriateness of the project boundary identified. The verification team confirmed that all GHG sources required by the methodology have been included within the project boundary. It was assessed that no emission sources related to project activity will cause any deviation from the applicability of the methodology or accuracy of the emission reductions.
Findings	No findings raised in this context.
Conclusion	• The project verification team was able to assess that complete information regarding the project boundary has been provided in PSF/29/ and could be assured from the line diagram. • The project verification team confirms that the identified boundary, selected emissions sources are justified for the project activity.

D.3.4 Baseline scenario

Means of Project Verification	AMS-I.D: Grid-connected electricity generation from renewable sources, ver 18.0 is the methodology for small scale project activities. Therefore, Makascı-9 Solar Power Plant Bundle follows this methodology. Within the scope of this methodology, "Tool to calculate the emission factor for an electricity system, version 07.0/12/",and "Investment analysis, version 11.0/14/" have been used. 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. The project activity includes solar power plant to benefit power of the solar to produce electricity and supply to the Turkish National Grid. 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. 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. The project is expected to reduce 14,147 tons of CO_2 annually in average. The baseline scenario in the PSF/29/ is reported as the supply of electricity to grid and thereby displacement of electricity from the electricity distribution system connected to the Turkish Grid. The baseline scenario applied in the PSF was compared with the requirements of the baseline described in the applied methodology and found consistent.
Findings	No findings raised in this context.
Conclusion	The project verification team confirms the following; • All assumptions and data used by the project participants are listed in the PSF/29/, including their references and sources; • 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/29/; • The verification team also concluded that the identified baseline scenario reasonably represents what would occur in the absence of the project activity.

D.3.5 Demonstration of additionality

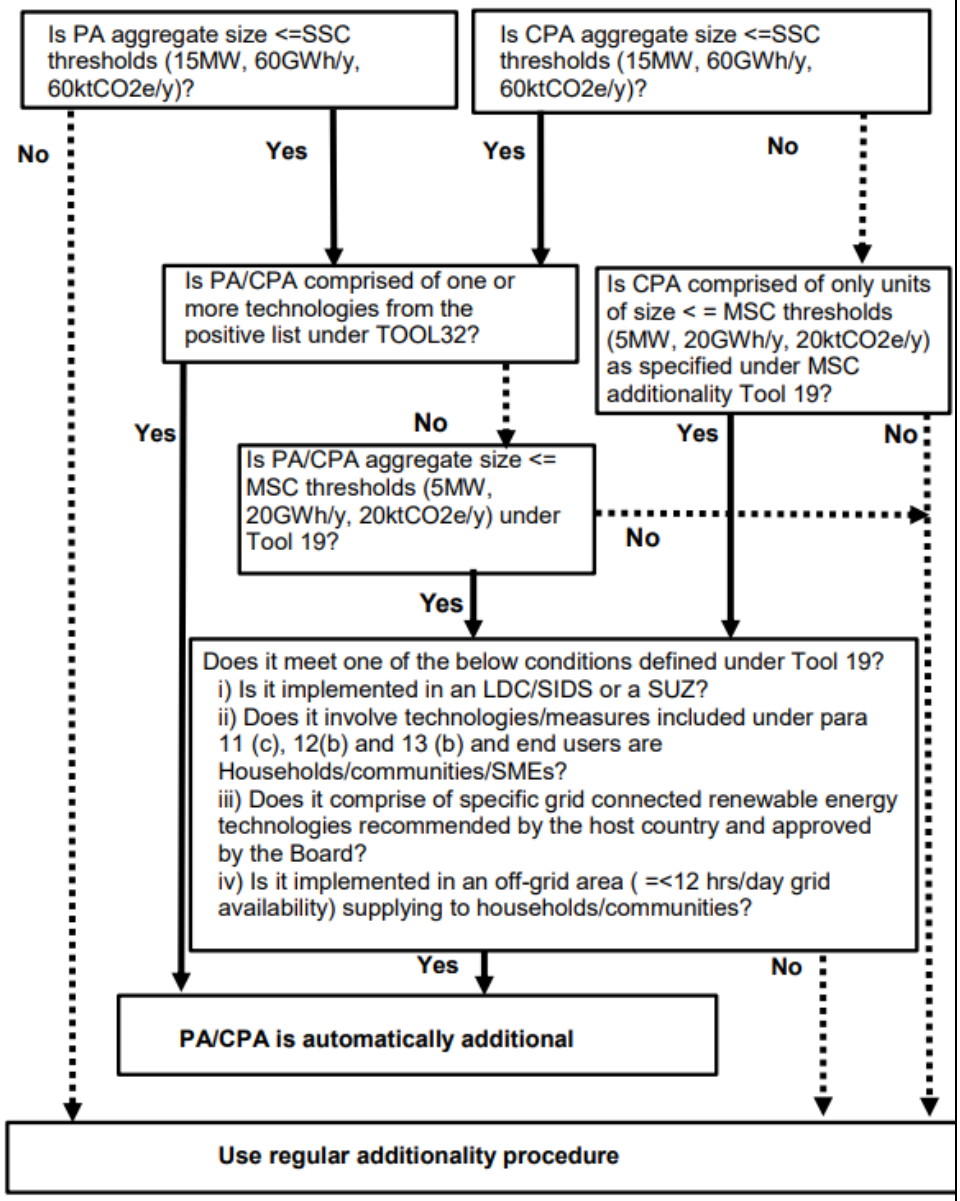
Means of Project Verification	The demonstration of additionality under GCC the project activity is required to undergo the following two tests Legal Requirement test: Type A projects shall be deemed non-additional if their implementation is required by a law that is enforced. A positive outcome of the 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. The project is not enforced by laws or regulations, and project activity is entirely a voluntary action. Also, the project activity complies with all applicable legal requirements of the host country, Türkiye[7]. 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 (version 3.1). An Additionality Test either based on a Positive List test or a projects-specific additionality test: The proposed project activity meets the criteria for additionality since: • The project without carbon credits does not provide benefit financially. • 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. • Mandatory laws and regulations are present: • Electricity Market Law/42/ ▪ *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.* • Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy/43/ ▪ *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.* • Energy Efficiency Law/44/ ▪ *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.* • Forest Law/45/ ▪ *Summary: The purpose of this law is to protect forest area.* • Environment Law/46/

[7] Declaration for Voluntary Action

- *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.*

- According to Tool 21 paragraph 11/13/, criteria of the project activity has been determined. The criteria figure is given below.



Regarding the above figure, 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)/13/ 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: (a) Investment barrier: a financially more viable alternative to the project activity would have led to higher emissions (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 (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 (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. Option (a) are chosen. To evaluate economic and financial status of the project activity, the investment analysis is made (Tool 27). There is no public funding in Türkiye for finance of this type of projects. **Step 0: Demonstration whether the proposed project activity is the first-of its-kind**[8] The proposed project activity is not the first-of-its-kind. **Step 1 - Identification of alternatives to the project activity consistent with current laws and regulations** [9] **Sub-step 1a - Define alternatives to the project activity:** The most realistic and reliable alternatives to the project activity are: 1. Proposed project is not undertaken as a VER or ACC project activity 2. Continuation of the current situation-supply of equal amount of electricity by the newly built grid connected power plants 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. **Outcome of Step 1a** 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

[8] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf
[9] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf

	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. **Sub-step 1b. Consistency with mandatory laws and regulation** The following applicable mandatory laws and regulations have been identified: 1. Electricity Market Law/42/ 2. Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy/43/ 3. Energy Efficiency Law/44/ 4. Forest Law/45/ 5. Environment Law/46/ The resultant alternatives to the project as outlined in Step 1a are in compliance with the applicable laws and regulations. **Outcome of Step 1b** 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. **Step 2 - Investment analysis** [10] The investment analysis has been done in order to make an economic and financial evaluation of the project. No public funding or ODA/24/ are available in Turkey for finance of this type of projects. **Step 2a – Determine appropriate analysis method** Three options to identify the analysis methods are as follows: • Simple Cost Analysis • Investment Comparison Analysis • Benchmark Analysis The Simple Cost Analysis is not applicable because the project activity provides economic benefits by selling electricity. There is no alternative investment because the baseline of the project is generation of electricity by the grid. Based on the above situations, the benchmark analysis is chosen for evaluation of the project investment. **Step 2b – Apply Benchmark Analysis (Option III)**

[10] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf

Particulars	Value	Unit	Assessment
Grid Connected Output	23,777	MWh	Verified against FSR/38/ which was available at the time of investment decision and cross verified against power purchase agreement (PPA)/18/ signed between (EPIAS) Energy Market Management Joint Stock Company and Project owner and commissioning certificate/15/ of the project. Further, the same has been confirmed during onsite visit by the project verification team and found to be correct.
Installed Capacity	13.883	MWe (AC)	
Amount of Equity	17,088,407	$	Verified against Feasibility Study Report /50/ which was available at the time of investment decision. The verification team crosscheck during IRR/16/.
Total Operation and Maintenance Units	104,015	$	The total expenses is based Feasibility Study Report /50/ which was available at the time of investment decision. The same is also cross-checked by the verification team.

For the purpose of benchmark analysis pre-tax Project IRR has been chosen as the indicator.

There are no available benchmarks for solar power plant projects in Türkiye. The credibility of a particular project is evaluated on the basis of several factors including cost recovery period, risk of postponed commissioning and credibility of the project owner. Since there is no long-term loan in Türkiye, the project owner can only use the medium-term loan.

Local Commercial Lending Rates

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.

The Strategy and Budget Department publishes “Interest Rates Applied to Loans and Savings[11]” monthly. The interest rate of December 2015 (the investment decision date is December 2015) is 11.5 % which reflects the banker’s expectations for a similar pre-tax investment.

Sub-step 2c – Calculation and comparison of financial indicators

Investment decision date is 12/2015 for Makascı-9 SPP Bundle.

Parameters	Data Value	Unit	Assessment
Principle Payments	0.00	$	There is no loan for the plants.
Interest	0.00	%	
Cost of Servicing Debt	0.00	$	

Parameters	Data Value	Unit	

[11] https://www.sbb.gov.tr/temel-ekonomik-gostergeler/#1542268521132-a9825b93-fa4c

Electricity Tariff for first 10 year	13.3	¢/kWh
Market Price after 10 years[12]	6	¢/kWh
Expected ACCs price	3	€/tCO_2

According to the investment analysis made for project activity, Project IRR of the Makascı-9 Solar Power Project Bundle has been calculated and indicated. IRR at time of investment decision has been calculated 4.35 % referring the parameters given above without considering the carbon revenue. The IRR calculation has been made for each province where the solar plants are closest to each other. Regarding this, total IRR has been calculated for all solar power plants. Expected lifetime of construction is determined as 25 years.

According to the Regulation on Certification and Support of Renewable Energy Resources[13], the government gave an incentive of 13.3 ¢/kWh for the first 10 years after the facility commissioning because the panels belonging to the facility are domestic production, and is assumed as 6 ¢/kWh after ten years. Annual generation has been taken as 26.378 GWh as indicated according to the capacity of the facilities.

Sub-step 2d – Sensitivity Analysis

Sensitivity analysis has been carried out for three main parameters identified;

- Investment cost
- Operating Cost
- Electricity Sales Revenue
- Electricity Generation

With ±5% fluctuation range up to ±10% for the below parameters, this table has been generated.	% Fluctuation				
	-10	**-5**	**0**	**+5**	**+10**
Investment Cost	6.00%	5.14%	4.35%	3.60%	2.91%
Operating Cost	5.50%	4.95%	4.35%	3.68%	2.93%
Electricity Income	3.32%	3.86%	4.35%	4.78%	6.76%
Electricity Generation	1.03%	2.84%	4.35%	5.66%	6.86%
PLF	1.03%	2.84%	4.35%	5.66%	6.86%

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 project 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

[12] Since the electricity market in 10 years is not known, this value is assumed.

[13] https://www.mevzuat.gov.tr/anasayfa/MevzuatFihristDetayIframe?MevzuatTur=7&MevzuatNo=18907&MevzuatTertip=5

	expenses have an influence on project IRR, but it is little and does not result in a substantial change in project 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. **Conclusion:** As described above, the project fulfils all necessary requirements of additionality specified in the 'Demonstration of additionality of small-scale project activities (Version 13.1). Hence, the project is additional. During desk review, assessment team found that, the project involves installation of Makasci-9 Solar Power Plant Bundle. The purpose of the project activity is to utilize clean technology that harnesses renewable solar energy to generate electricity and there by feed the generated electricity to the Turkish national grid. The project is deemed additional without any further analysis.
Findings	No findings raised in this context.
Conclusion	Based on the information provided in the PSF and guidance by GCC Project Standard version 03.1/2/ and clarification 02/26/ from GCC 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

Means of Project Verification	The verification team checked whether the equations and parameters used to calculate GHG emission reductions or net anthropogenic GHG removals for PSF is in accordance with applied methodology. Verification team checked section B.6 of the PSF to confirm whether all formulae to calculate baseline emissions, project emission and leakage have been applied in line with the underlying methodology. **Baseline Emissions:** Moreover, in accordance with AMS-I.D, the baseline emissions are calculated as the net electricity generated by the project activity, multiplied with the baseline emission factor of the project grid. $$BE_y = EG_{facility,y} \times EF_{grid,CM,y}$$ Where, BE_y= Baseline emissions in year y (tCO_2/yr) $EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr) $EF_{grid,CM,y}$= Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO_2/MWh) Therefore, the baseline emission annually is: $$BE_y = (21{,}825) \times (0.6482) = 14{,}147\ tCO_2e$$ **Project Emission:** Since the project activity is a solar project,

	$$PE_y = 0$$ **Leakage Emission:** In accordance with the AMS-I.D. (Version 18.0), leakage is taken as zero since the project is a new power plant is taken as zero, Therefore, $$LE_y = 0$$ **Emission Reductions** $$ER_y = BE_y - PE_y - LE_y$$ $$ER_y = BE_y = 14{,}147\ tCO_2e/yr$$
Findings	CAR 04 is raised and closed successfully.
Conclusion	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 18.0/9/ For ex-ante calculation, the assessment team confirms that • All assumptions and data used by the project participants are listed in the PSF including their references and sources. • All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PSF • All values used in the PSF/29/ are considered reasonable in the context of the proposed project activity • The baseline methodology and the applicable tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions; • All estimates of the emissions can be replicated using the data and parameter values provided in the PSF. • All calculations are complete and without any omissions.

D.3.7 Monitoring plan

Means of Project Verification	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-v3.0/5/. 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

The parameters that are fixed ex-ante are:

Parameter	Value	Source
Build Margin Emission factor ($EF_{grid, BM, y}$)	0.4153 tCO_2/MWh	Emission factor of the Turkish grid determined ex-ante. It's been published by the Ministry of Energy for 2019 on 06/10/2022.
Operating Margin emission factor ($EF_{grid, OM, y}$)	0.7258 tCO_2/MWh	
Combined Margin CO_2 emission factor (EF_{CO2})	0.6482 tCO_2/MWh	

The parameters that are to be monitored ex-post are:

1	$EG_{facility,y}$	Net Electricity generated and delivered to the grid by the power plant in year y: Annual average electricity generation is 22,334 MWh after 2017 after the activation of all plants. The values are cross-check with the on-site meter records which are the monthly metered data internal excel sheets named as OSF Form. The Electricity generation data is recorded by two electricity meters. According to the meters, the invoices/31/ 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. The Calibration/40/ of the meters are valid for 10 years based on related regulation/47/. In addition, according to System Usage Agreement/36/ with electricity distribution company, the meters are calibrated once in two years. Therefore, it complies with regulations of ministry of 10 years but in conservative approach of electricity distribution companies protocol calibrations will be carried out in 2 years only. The meters are sealed by electricity distribution companies and the project owner are not allowed to access the meters. If there is a difference between the readings of two devices, electricity distribution company is informed about this situation. EPDK regulations should be followed for the meters to identify the accuracy class of the meters as 0.5.
2	CO_2 Emissions	The parameter is calculated based on the net electricity generation from the project activity and grid emission factor. Reduction of CO_2 emissions due to implementation of project activity that would otherwise be emitted by thermal power plants. The monitoring parameter will be continuously monitored by means of energy meters as mentioned above monitoring parameter $EG_{facility,y}$
3	Solid waste Pollution from Hazardous wastes	Hazardous waste from project activity such as oil waste, hazardous parts of equipment as defined in Waste Management Regulation (Ratified by President of Türkiye, enacted 02/04/2015 with Official Gazette Issue: 29314 by Official Gazette of Türkiye, authored by Ministry of Environment, Urbanization and Climate Change) /53/ therefore, its disposal is regulated also by this regulation. According to Article 9 of Waste Management Regulation /53/, the waste owner is obliged to manage their hazardous waste in accordance with the provisions specified in this

			Regulation including collecting, storing them properly, keep records for the wastes its produces, sending their wastes to waste processing facilities that have a permit/ environmental license in accordance with the provisions of this Regulation. The monitoring of this parameter by recording in a logbook and keep hazardous waste transfer receipts. This parameter will be measured yearly and reviewed once per each monitoring period. The project verification team deems that appropriate.
	4	Solid waste pollution from end-of-life products / equipment	Solid waste from end-of-life products/ equipment might include such as discard equipment Concrete, Brick, Tile and Ceramic, etc. as per Waste Management Regulation (Ratified by President of Türkiye, enacted 02/04/2015 with Official Gazette Issue: 29314 by Official Gazette of Türkiye, authored by Ministry of Environment, Urbanization and Climate Change)/51/ and therefore are also regulated by this regulation. According to Article 9 of Waste Management Regulation, the waste owner is obliged to manage their waste in accordance with the provisions specified in this Regulation including collecting, storing them properly, keep records for the wastes its produces, sending their wastes to waste processing facilities that have a permit/ environmental license in accordance with the provisions of this Regulation. The lifetime of solar PV modules & other equipment/ product in this project activity is 25 years. Therefore, there will be unlikely that PV modules which can be finished their life during the 10-year fixed crediting period of the project activity. However, if any end-of-life equipment/ product during crediting period, it will be monitored. The monitoring of this parameter by recording in a logbook and keep end-of-life waste transfer receipts/ returned-toproducer receipts. This parameter will be monitored continuously and reviewed once per each monitoring period. The project verification team deems that appropriate.
	5	Solid waste Pollution from Batteries	The PSF describes the methods for handling and disposing of the damaged parts and other equipment's in accordance with national/local laws. There is no prevailing law in place in regard to how the damaged/defunct parts shall be stored or replaced in the host country. The project owner is in the process of devising an internal policy for the same based on the best practice followed domestically/internationally. In the meantime, if regulation or guideline of the host country is released, it shall be ensured that the same is adhered to .This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
	6	Replacing Fossil Fuels with renewable sources of energy	The parameter is calculated based on the net electricity generation from the project activity. The monitoring parameter will be continuously monitored by means of energy meters as mentioned above monitoring parameter $EG_{PJ,y}$

	7	Solid Waste Pollution from E-waste	As per monitoring plan E-waste generated from the project activity shall be stored and disposed-off as per the guidance of 'Turkish Waste Management Regulation' in the host country. As per the guidance the E-waste generated from the project activity will be collected and sent to the licensed companies. This will be monitored by means of the records/18/ by the project owner in the installation site when E waste will be disposed of or sent for refurbishment. This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
	8	Long-term jobs (>10 year) created/ lost	This parameter is continuously monitored based on the number of jobs created by the project owner in the long-term basis. This will be verified using the HR and payroll records of the employees who worked on the project activity. This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
	9	Sources of income generation increased / reduced	This parameter is monitored on a yearly basis based on revenues generated and recurring expenses from the project activity. The project increases income by creating job opportunities. The number of people employed in during the operation, the project will be monitored through payroll records. This will be verified based on the annual audited accounts book of the project owner. This was confirmed by interviewing the monitoring personnel of the project activity during remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team
	10	Reducing / increasing accidents	This parameter is monitored on yearly basis based on the number of trainings provided by the project owners to the employees and staffs of the project activity to reduce the accidents at site. The project ensures that the at least two trainings will be provided on yearly basis and also PO ensures that by checking the use of PPE kit regularly by the employees in the site on quarterly basis. This will be verified using the training records /registers/23/ maintained in the project site. This was confirmed by interviewing the monitoring personnel of the project activity during on site visit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
	11	PM2.5 and PM10	The project activity eliminates the increase of PM2.5 and PM10 emissions which would have been released to the atmosphere by fossil fuel consumption, in the absence of the proposed project. The parameter is calculated based on the amount of Particulate matter detected in various cities. The measurement will be conducted by project owner after 5 years. Also, General Directorate of Meteorology measures these levels regularly. Each year a report is generated and published.

Findings	CAR 07 is raised and closed successfully
Conclusion	The verification team confirms that, • The verification team confirms that the monitoring plan based on the approved monitoring methodology is correctly applied to the PSF. • The monitoring plan will give opportunity for real measurements of achieved emission reductions. The verification team considers that monitoring arrangements described in the monitoring plan is feasible within the project design. • 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. • 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.

D.4. Start date, crediting period and duration

Means of Project Verification	The Start date of the project activity is 11/08/2016 which is earliest installation of solar unit in the project activity. The Commissioning certificates/15/ of the installation of the project activity has been verified and confirmed start date as per PSF is found correct and acceptable to verification team. 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 12/08/2016, which is appropriate as per paragraph 40(b) of the Project Standard version 4.0. The expected lifetime of the project activity is 25 years which is verified by the technical details/17/ of the PV panels and confirmed based on the sectoral expertise.
Findings	No findings raised in this context.
Conclusion	The start dates and the crediting period type and length have been verified and found to be in accordance with GCC project standard version 03.1.

D.5. Environmental impacts

<table>
<tr><td>Means of Project Verification</td><td>The project complies with the relevant regulations and laws in Türkiye. In line with Turkish environmental regulations, an “Environmental Impact Assessment (EIA) not required letter” was approved by the Ministry of Environment, Urbanization and Climate Change for every plant in this bundled project.

In line with Turkish environmental regulations, an “Environmental Impact Assessment (EIA) Exemption” was approved by the Ministry of Environment, Urbanization and Climate Change and the dates of exemption reports are shown in below table

<table>
<tr><th>#</th><th>Name of SPP</th><th>Date of the EIA Exemption</th></tr>
<tr><td>1</td><td>GÜMÜŞLÜER ENERJİ-3 GES</td><td>19/07/2016</td></tr>
<tr><td>2</td><td>ORHANİYE-5 GES</td><td>24/12/2014</td></tr>
<tr><td>3</td><td>GÜMÜŞLÜER ENERJİ-5 GES</td><td>10/11/2016</td></tr>
<tr><td>4</td><td>AKŞEHİR YSR-2 GES</td><td>08/08/2014</td></tr>
<tr><td>5</td><td>HAYIT GES</td><td>28/07/2015</td></tr>
<tr><td>6</td><td>DERİN ENERJİ-2 GES</td><td>04/04/2016</td></tr>
<tr><td>7</td><td>LARİVA ENERJİ-1 GES</td><td>29/03/2016</td></tr>
<tr><td>8</td><td>AHH ENERJİ GES</td><td>28/03/2014</td></tr>
<tr><td>9</td><td>AAB ENERJİ GES</td><td>14/01/2021</td></tr>
<tr><td>10</td><td>GÜMÜŞLÜER ENERJİ-2 GES</td><td>15/07/2016</td></tr>
<tr><td>11</td><td>GİTAŞ GIDA GES</td><td>28/03/2014</td></tr>
<tr><td>12</td><td>AYD ENERJİ GES</td><td>28/03/2014</td></tr>
<tr><td>13</td><td>GİTAŞ ENERJİ GES</td><td>14/01/2021</td></tr>
<tr><td>14</td><td>GORA GES</td><td>11/12/2014</td></tr>
<tr><td>15</td><td>ORHANİYE-2 GES</td><td>24/12/2014</td></tr>
</table>
</td></tr>
<tr><td>Findings</td><td>No findings raised</td></tr>
<tr><td>Conclusion</td><td>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.</td></tr>
</table>

D.6. Local stakeholder consultation

Means of Project Verification	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-9 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-9 Solar Power Plant Bundle project. To enhance the participation of all stakeholders several meetings held in Konya, Afyonkarahisar and Isparta provinces. It was arranged at 14:00 on 19.04.2022 in Konya province Fevzipaşa Neighbourhood and 21.04.2022 in Afyonkarahisar province Orhaniye village and Isparta province Barla Village. The meetings were announced orally. Furthermore, announcements were sent to the headmen(Mukhtar) and coffee

	houses of the nearby settlements and posted on the board. Local stakeholders were given some information about the project at the beginning of the meeting. The electricity capacity of the project, its effects on the environment, people, and natural life in the region where the project is located were mentioned. Local stakeholders were informed about climate change, the impact of greenhouse gases on the climate and greenhouse gas emissions. It was explained why solar power was preferred for the project and the contribution of renewable energy sources to greenhouse gas emissions. The stakeholder consultation responses/21/ were received by the assessment team. The verification team confirmed by review of the stakeholder responses that the summary of stakeholders' comments reported in PSF was accurate. There was no negative feedback received. The list of the relevant stakeholders who were requested for feedback is also provided in the PSF.
Findings	No findings raised in this context.
Conclusion	The 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 verification team confirms that the local stakeholder consultation process performed for the project activity fulfils the requirements and all the LSC documents /21/ are verified and found acceptable.

D.7. Approval and Authorization- Host Country Clearance

Means of Project Verification	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.
Findings	FAR 01 raised.
Conclusion	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 1st Jan 2021.

D.8. Project Owner- Identification and communication

Means of Project Verification	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/33/ and project owner valid passports have been checked. The legal owner of the project is M/s. Makascı İnşaat Enerji ve Ticaret Anonim Şirketi and same to be 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 Modules, Inverter, Transformer etc, of the M/s. Makascı İnşaat Enerji ve Ticaret Anonim Şirketi. All information was consistent between these documents.
Findings	No findings raised in this context.
Conclusion	The verification team confirms that the information of the project owners has been appended as per the template and the information regarding the project owners stated in the PSF/29/ and authorization letter/19/ were found to be consistent

D.9. Global stakeholder consultation

Means of Project Verification	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 17/05/2022 to 31/05/2022. There were no comments received during this period
Findings	No findings raised.
Conclusion	The PSF had been made public for receiving stakeholder feedback and no comments were raised during the GSC process

D.10. Environmental Safeguards (E+)

Means of Project Verification	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 **Positive Impacts:** • Environmental – Air – CO2 emissions: The project activity being renewable power generation avoids CO2 emissions that would have occurred in baseline due to generation in thermal power plants. The impact is being monitored through parameter 'CO2 emissions' and is verified under section D.3.7 of the report. • Replacing fossil fuels with renewable sources of energy: the impact is self-evidentiary as project being a renewable energy power plant and baseline is fossil fuel dominated grid. It is also directly/practically difficult based on available data to quantify the actual amount of fossil fuel continuously replaced as the grid generation would be mixed of existing and newly plants being built. The Assessment team also feels that there is no separate monitoring required for this parameter as net electricity generated by project activity is already being monitored and it can be concluded that same amount of electricity would have been generated in grid with contribution of fossil fuel (based on grid mix). **Impacts identified as 'Harmless' as regulatory complied OR mitigated:** • Solid waste Pollution from Hazardous wastes: The is covered to monitor impacts from disposal of broken or replaced solar panels. The impacts are being monitored through parameters 'Solid waste Pollution from Hazardous wastes' and discussed under section B.7.1 of this report • Solid waste Pollution from Batteries: - 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". The parameter is being monitored as 'Solid Waste from Batteries' and validated under section B.7.1 of this report. • Solid waste Pollution from end-of-life products/ equipment: - Waste generated from the plant after End-of-life shall be discarded in accordance with host country regulation. The parameter is being monitored as 'Solid Waste from PV Modules and Waste pollution from end-of-life equipment' and validated under section B.7.1 of this report. **Harmful Impacts:** • No negative impacts identified or verified for the project activity, which cannot be mitigated

	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. The detailed matrix has been included in appendix 5 of the report.
Findings	CAR 07 is raised and closed successfully
Conclusion	Based on the documentation review the 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+)

Means of Project Verification	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. **Positive Impacts:** • Long-term jobs created – The impact is being monitored throughout crediting period by parameter 'Local Employment Generation and long-term jobs (> 1 year) created/ lost' and is verified under section D.3.7 of the report. • Source of income generation increasing / reduced - The impact is being monitored throughout crediting period by parameter 'Source of income generation increasing / reduced' and is verified under section D.3.7 of the report. **Impacts identified as 'Harmless' as regulatory complied OR mitigated:** • Reducing / increasing accidents - The impact is being monitored throughout crediting period by parameter 'Reducing / increasing accidents' and is verified under section D.3.7 of the report. **Negative Impacts:** • No negative impacts identified or verified for the project activity 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 remote auditt and through supporting documents. The detailed matrix providing the project verification team's assessment has been included in appendix 6 of the verification report.
Findings	CAR 07 is raised and closed successfully.
Conclusion	Based on the documentation review the 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+)

Means of Project Verification	The assessment of the contribution of the project activity on United Nations Sustainable Development Goals has been carried out in section F of the PSF. Out of the 17 Goals project activity has no adverse effect on any of the goal and contribute to 5 SDGs: **SDG 7 Energy:** SDG Target 7.2 "By 2030, increase substantially the share of renewable energy in the global energy mix". The project activity contributes towards this goal by replacing the generation of fossil fuel dominated grid in baseline by renewable Solar-based power generation. The contribution towards SDGs goal is being monitored by the parameter monitoring of net electricity generated by the project activity in the monitoring plan and is found adequate. This discussed under section D.3.7 of the report. **SDG 8 Employment:** 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". The project activity contributes towards this goal by generation of new job opportunities in the project activity region and providing training to the employees for skill development. The contribution towards SDGs goal is being monitored by the parameter monitoring of quantitative employment and trainings provided activity in the monitoring plan and is found adequate. This discussed under section D.3.7 of the report. **SDG 9 – Industry, Innovation and Infrastructure:** SDG Target 9.4 requires "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". The project helps the Target 9.4 by implementing a clean, reliable, and environmental-friendly infrastructure for clean energy production / up-to-date industrialization. The contribution towards SGD goal is being monitored by the parameter monitoring of quantitative employment and trainings provided activity in the monitoring plan and is found adequate. This discussed under section D.3.7 of the report. **SDG 11 – Sustainable Cities and Communities:** The project promotes SDG Target 11.6 "By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management" by decreasing particulate matter caused by fossil fuel emissions in the cities. The contribution towards SDGs goal is being monitored by the parameter monitoring of quantitative employment and trainings provided activity in the monitoring plan and is found adequate. This discussed under section D.3.7 of the report. **SDG 13 Climate Change:** SDG Target 13.2 "Integrate climate change measures into national policies, strategies and planning". -The contribution towards SDGs goal is being monitored by the parameter 'CO2 Emissions' in the monitoring plan and is found adequate. This discussed under section D.3.7 of the report. 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 platinum.
Findings	C AR 05 and 07 is raised and closed successfully.
Conclusion	Based on the documentation review the verification team can confirm that Project Activity is likely to 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)

Means of Project Verification	A declaration under section A.5 of the PSF has been included for offsetting the approved carbon credits (ACCs)/31/ for the entire crediting period from 12/08/2016 to 11/08/2026.
Findings	FAR 01 was raised.
Conclusion	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+)

Means of Project Verification	The project activity meets the CORSIA Eligibility since the crediting period is after 01/01/2016 and the project is applying for registration under GCC which is one of the approved programmes for eligibility. It was also confirmed that the project activity does not fall under the excluded unit types, methodologies, programme 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
Findings	FAR 01 was raised.
Conclusion	The project activity meets the CORSIA Label (C+) eligibility: a) The Project Activity complies with all the requirements for the Emission Unit Criteria of CORSIA b) A written attestation from the host country's national focal point on double counting is not required for Emission units till 31st December 2020; c) The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.2 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 d) The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard and will achieve Environmental No-net-harm Label (E+), Social Nonet-harm Label (S+) for this project activity e) The Project Activity is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), complies with the Project Sustainability Standard and will achieve UN SDG Certification Labels (Platinum SDG+ Label) for this project activity

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 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 'Desilyon Danışmanlık Ticaret A.Ş.' to undertake verification of the project activity "Makascı-9 Solar Power Plant Bundle" in Türkiye. 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_2e 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 141,468 tCO_2e/over the 10 years crediting period starting from 12/08/2016.

4K Earth Science Private Limited has verified and hereby certifies that the GCC Project Activity "Makascı-9 Solar Power Plant Bundle":

- has correctly described the Project Activity in the Project Submission Form (version 1.5, dated 16/05/2023) 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 141,468 tCO_2eq 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 ISO 14064-3, 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 5 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., v1.3 paragraph 21-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project
- is likely to contribute to CORSIA Eligible Emission Units and has CORSIA Label (C+) certification valid till 31 December 2020. A written attestation from the Host country on double counting is not required 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
CO_2	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_2e	Tonnes of Carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VS	Verification Standard

Appendix 2. Competence of team members and technical reviewers

Certificate of Competence							
Name	☒ Mr. ☐ Ms.	**Ma Paa Puratchikkanal**					
Qualification Procedure		*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.*					
Appointed to work as:							
		CDM Validator/Verifier	**Team Leader**	**Team Member**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**
Appointed		Yes	Yes	Yes	Yes	Yes	Yes

Appointed Date	15-11-2021		
Authorized to work as Technical Expert for:			
Authorized Technical Area	**Sectoral Scope**	**TA Code**	**Technical Area within the scope**
	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+		
Authorized to work as Local Expert for:			
Country/Countries	India, Sri Lanka, Indonesia, Vietnam, Türkiye, Thailand, Brazil, Myanmar		
Compliance check by: Anand S. R.			

Certificate of Competence						
Name	☐ Mr. ☒ Ms.	**Swati S Acharya**				
Qualification Procedure	*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects.*					
Appointed to work as:						
	CDM Validator/Verifier	**Team Leader**	**Team Member**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**
Appointed	No	No	Yes	No	No	No
Appointed Date	01-11-2021					
Authorized to work as Technical Expert for:						
Authorized Technical Area	**Sectoral Scope**		**TA Code**	**Technical Area within the scope**		
	Energy industries (renewable - / non-renewable sources)		1.2	Renewables		
	GHG+					
	E+					
	S+					
	SDG+					
Authorized to work as Local Expert for:						
Country/Countries	India					
Compliance check by: Anand S. R.						

Certificate of Competence		
Name	☒ Mr. ☐ Ms.	**Rohit Badaya**
Qualification Procedure	*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects.*	

Appointed to work as:						
	CDM Validator/Verifier	**Team Leader**	**Team Member**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**
Appointed	Yes	Yes	Yes	Yes	Yes	No
Appointed Date	30-04-2022					
Authorized to work as Technical Expert for:						
Authorized Technical Area	**Sectoral Scope**		**TA Code**	**Technical Area within the scope**		
	Energy industries (renewable - / non-renewable sources)		1.1	Thermal energy generation		
	Energy industries (renewable - / non-renewable sources)		1.2	Renewables		
	Energy distribution		2.1	Energy distribution		
	Energy demand		3.1	Energy demand		
	Waste handling and disposal		13.1	Solid waste and wastewater		
	Waste handling and disposal		13.2	Manure		
Authorized to work as Local Expert for:						
Country/Countries	India					
Compliance check by: Anand S. R.						

Appendix 3. Document reviewed or referenced

No.	Author	Title	References to the document	Provider
1	GCC	GCC Program Manual	Version 03.1	Publically available
2	GCC	Project Standard	Version 03.1	Publically available
3	GCC	Verification Standard	Version 03.1	Publically available
4	GCC	Environment-and-Social - Safeguards-Standard	Version 3.0	Publically available
5	GCC	Project-Sustainability-Standard	Version 3.0	Publically available
6	GCC	Project Submission Form	Version 01.1	Publically available
7	GCC	Project Submission Form (PSF)- Template	Version 3.2	Publically available
8	Project Owner	ER Sheet related PSF Version 1.1	Version 1.1	Project Owner
		ER Sheet related PSF Version 1.2	Version 1.2	
9	UNFCCC	Methodology: AMS-I D version 18.0	Version 18.0	Publically available
10	UNFCCC	Tool 01- Tool for the demonstration and assessment of additionality Version 7.0.0	TOOL 01	Publically available
11	VERRA	Verra Registry https://registry.verra.org/app/search/VCS/All%20Projects	-	Publically Available.
12	UNFCCC	Tool 07- Tool to calculate the emission factor for an electricity system Version 7.0	Tool 07	Publically available
13	UNFCCC	Tool 21- Demonstration of additionality of small-scale project activities Version 13.1	TOOL 21	
14	UNFCCC	Tool 27- Investment analysis Version 11.0	TOOL 27	
15	Project Owner	Commissioning certificate for all SPP		Project Owner
		Name of SPP	**Date of Commissioning**	
		AHH ENERJİ GES	11/08/2016	
		AAB ENERJİ GES	11/08/2016	
		GİTAŞ GIDA GES	11/08/2016	
		AYD ENERJİ GES	11/08/2016	
		GİTAŞ ENERJİ GES	11/08/2016	
		GORA GES	02/10/2017	
		ORHANİYE-2 GES	06/12/2017	
		ORHANİYE-5 GES	06/12/2017	
		GÜMÜŞLÜER ENERJİ-2 GES	29/01/2018	
		GÜMÜŞLÜER ENERJİ-3 GES	29/01/2018	
		GÜMÜŞLÜER ENERJİ-5 GES	29/01/2018	
		LARİVA ENERJİ-1 GES	29/01/2018	
		DERİN ENERJİ-2 GES	29/01/2018	
		HAYIT GES	31/01/2018	
		AKŞEHİR YSR-2 GES	06/11/2019	
16	Project Owner	IRR sensitivity Analysis	Dated 27/04/2023	Project Owner
17	Project Owner	Technical Details of Major Equipments involved in the PA.	-	Project Owner

No.	Author	Title	References to the document	Provider
18	Project Owner	Power Purchase agreement		Project Owner
		Name of SPP	**Date**	
		AHH ENERJİ GES	01/09/2015	
		AAB ENERJİ GES	31/12/2020	
		GİTAŞ GIDA GES	01/09/2015	
		AYD ENERJİ GES	01/09/2015	
		GİTAŞ ENERJİ GES	01/09/2015	
		GORA GES	28/12/2015	
		ORHANİYE-2 GES	01/11/2019	
		ORHANİYE-5 GES	01/11/2019	
		GÜMÜŞLÜER ENERJİ-2 GES	01/04/2019	
		GÜMÜŞLÜER ENERJİ-3 GES	01/04/2019	
		GÜMÜŞLÜER ENERJİ-5 GES	01/04/2019	
		LARİVA ENERJİ-1 GES	29/04/2017	
		DERİN ENERJİ-2 GES	01/04/2019	
		HAYIT GES	08/04/2020	
		AKŞEHİR YSR-2 GES	18/09/2019	
19	Project Owner	Letter of Authorization of Makascı İnşaat Enerji ve Ticaret Anonim Şirketi and Desilyon Danışmanlık Ticaret A.Ş.	Date 10/05/2022	Project Owner
20	Project Owner	Solid Waste Records/Register	-	Project Owner
21	Project Owner	Local Stakeholder Consultation documents like invitation, Notes on LSC, Meeting Photos, MOM	-	Project Owner
22	Project Owner	Details of workers / Sample Contract	-	Project Owner
23	Project Owner	Training Records	Weblink	Project Owner
24	Project Owner	ODA Declaration	Weblink	Project Owner
25	GCC	Clarification 01	Version 1.3	Publically available
26	GCC	Clarification 02	Version 01.0	Publically available
27	GCC	Project Verification Report Template	Version 03.1	Publically available
28	TEİAŞ	Türkiye National Network Emission Factor Data Sheet, 2019	Data Sheet	Publically available
29	Project Owner	PSF Version 1.1	Dated 16/05/2022	Project Owner
		PSF Version 1.2	Dated 14/09/2022	
		PSF Version 1.3	Dated 25/04/2023	
		PSF Version 1.4	Dated 12/05/2023	
		PSF Version 1.5	Dated 16/05/2023	
30	Project Owner	Generation Details & Invoice raised Documents	Document	Project Owner
31	Project Owner	Declaration for Intended use of ACCs	Weblink	Project Owner
32	Project Owner	Standard on Avoidance of Double Counting	Version 1.0	Project Owner

No.	Author	Title	References to the document	Provider
33	Project Owner	Company Registration certificate and Passport Details of the Project Owner	-	Project Owner
34	CDM	CDM Website https://cdm.unfccc.int/Projects/projsearch.html https://cdm.unfccc.int/Projects/Validation/index.html	-	Publically Available.
35	Project Owner	Supply and installation Agreement between Esyel Global Elektrik Üretim A.Ş and Vestas Ruzgar Enerjisi Sistemleri Sanayi ve Ticaret Ltd. Sti.	Dated 04/03/2022	Project Owner
36	Project Owner	Service and Availability Agreement between Esyel Global Elektrik Üretim A.Ş and Vestas Ruzgar Enerjisi Sistemleri Sanayi ve Ticaret Ltd. Sti.	Dated 04/03/2022	Project Owner
37	Project Owner	Environment Impact Assessment(EIA) Exemption		Project Owner
		Name of SPP	**Date of the EIA Exemption**	
		GÜMÜŞLÜER ENERJİ-3 GES	19/07/2016	
		ORHANİYE-5 GES	24/12/2014	
		GÜMÜŞLÜER ENERJİ-5 GES	10/11/2016	
		AKŞEHİR YSR-2 GES	08/08/2014	
		HAYIT GES	28/07/2015	
		DERİN ENERJİ-2 GES	04/04/2016	
		LARİVA ENERJİ-1 GES	29/03/2016	
		AHH ENERJİ GES	28/03/2014	
		AAB ENERJİ GES	14/01/2021	
		GÜMÜŞLÜER ENERJİ-2 GES	15/07/2016	
		GİTAŞ GIDA GES	28/03/2014	
		AYD ENERJİ GES	28/03/2014	
		GİTAŞ ENERJİ GES	14/01/2021	
		GORA GES	11/12/2014	
		ORHANİYE-2 GES	24/12/2014	
38	Project Owner	Generation License for Project	-	Project Owner
39	Project Owner	Human Resources Management Plan	-	Project Owner
40	Project Owner	Calibration Certificates for Energy Meter		Project Owner
		Name of SPP	**Date of Calibration**	
		GÜMÜŞLÜER ENERJİ-3 GES	24/01/2018	
		ORHANİYE-5 GES	20/11/2017	
		GÜMÜŞLÜER ENERJİ-5 GES	24/01/2018	
		AKŞEHİR YSR-2 GES	14/04/2023	
		HAYIT GES	14/03/2018	
		DERİN ENERJİ-2 GES	24/01/2018	
		LARİVA ENERJİ-1 GES	24/01/2018	
		AHH ENERJİ GES	15/08/2016	
		AAB ENERJİ GES	15/08/2016	
		GÜMÜŞLÜER ENERJİ-2 GES	24/01/2018	
		GİTAŞ GIDA GES	15/08/2016	
		AYD ENERJİ GES	15/08/2016	
		GİTAŞ ENERJİ GES	15/08/2016	

No.	Author	Title	References to the document	Provider
		GORA GES	01/12/2017	
		ORHANİYE-2 GES	20/11/2017	
41	Project Owner	Waste Records	-	Project Owner
42	Project Owner	Electricity Market Law	https://www.mevzuat.gov.tr/MevzuatMetin/1.5.4628.pdf	Project Owner
43	Project Owner	Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy	https://www.mevzuat.gov.tr/MevzuatMetin/1.5.5346.pdf	Project Owner
44	Project Owner	Energy Efficiency Law	https://www.resmigazete.gov.tr/eskiler/2007/05/20070502-2.htm	Project Owner
45	Project Owner	Forest Law	https://www.mevzuat.gov.tr/MevzuatMetin/1.3.6831.pdf	Project Owner
46	Project Owner	Environment Law	https://www.mevzuat.gov.tr/MevzuatMetin/1.5.2872.pdf	Project Owner
47	President of Türkiye	Regulation for calibration https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6381&MevzuatTur=7&MevzuatTertip=5	-	Publically Available
48	Gold Standard	GS Website https://registry.goldstandard.org/projects?q=&page=1	-	Publically Available
49	I.REC Standard	International REC Standard (I-REC) https://www.irecstandard.org/registries/	-	Publically Available
50	Project Owner	Feasibility Report for Makasci 8 SPP	Weblink	Publically Available
51	President of Türkiye	Waste Management Regulation https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5	-	Publically Available

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

Table 1. CLs from this Project Verification

CL ID	01	**Section no.**		**Date :** 04/07/2022
Description of CL				

Project Owner's (PO) is requested to submit the following documents / supporting's:

1. Commissioning Certificates of all the 15 Installations.
2. Details of Sanctioned Connected Load / Contract Demand of all 15 installations.
3. Power Purchase Agreements.
4. Proof for Start date of project.
5. Declaration of intended use of Approved Carbon Credits (ACCs).
6. EIA decision proof.
7. Local Stakeholder Invitations, Photographs and Minutes of Meeting.
8. Company HR Policy to support the claims made in PSF.
9. Makasci's Waste management practices and record keeping process.
10. ODA declaration
11. Details of workers employed during construction stages (both temporary & permanent) and no. of women employed.
12. Details of employees employed for the operation of project activity (both temporary & permanent) and no. of women employed.
13. Details of Balance of Plant (BOP).
14. Calibration certificates for the energy meters.
15. Records of training.

Project Owner's response	**Date :** 18/07/2022

1. They have been shared in LoD of "1-Commissioning Certificates".
2. They have been shared in LoD of "2-System Connection Agreement".
3. There is not any PPA. In Turkey, System Connection Agreement is convenient, which has been shared in LoD of "2-System Connection Agreement".
4. Proof for Start date of project has been mentioned in Commissioning Certificates of all plants. So kindly find the List of Document as "1-Commissioning Certificates".
5. Declarations of intended use of Approved Carbon Credits (ACCs) have been shared in in LoD as "4-ACC Declaration".
6. Company HR Policy has been shared in LoD as "6-Company HR Policy".
7. EIA decision proof has been shared in LoD as "3-Environmental Clearances".
8. It has been shared in LoD as "5- LSC Proof"
9. Makasci's Waste declarations have been shared in LoD as "7- Waste Declaration".
10. ODA declarations have been shared in LoD as "8-ODA Declaration".
11. It has been shared in LoD as "9 - Employee Information".
12. It has been shared in LoD as "9 - Employee Information".
13. They have been mentioned in FSR which has been shared in LoD as "19-FSR" for all plants.
14. They have been shared in LoD of "10- Calibration Reports" have been sent later.
15. They have been shared in LoD of "11- Training Records".

Documentation provided by Project Owner's
Documents have been shared in List of Documents.

GCC Verifier assessment	**Date: 26/09/2022**
Provide the documents of calibration report and photocopy of local stakeholder meeting.The CL 01 is open.	

Project Owner's response	**Date :08/05/2023**
The documents of calibration report are provided in LoD-2 "1- Calibration Reports". The local stakeholder meetings were announced orally by the village mukhtar.	

Documentation provided by Project Owner's
LoD-2

GCC Verifier assessment	**Date: 09/05/2023**
The List of document has been revised and found to be ok. Thus, the CL 01 is closed.	

CL ID	02	**Section no.**	A.1 Table 3	**Date :** 04/07/2022
Description of CL				
PO to clarify the difference in the number of inverters ie why more number of inverters used for less area?.				
Project Owner's response				**Date :** 19/07/2022

Because these inverters have less maximum power (kW): For example, AHH Enerji GES has one inverter which has 1000 kW maximum power. However, Orhaniye-2 GES has 20 inverters which has 50 kW maximum power.
Documentation provided by Project Owner's
Revised PSF.
GCC Verifier assessment **Date: 26/09/2022**
The given explanation has been reviewed and found to be ok. The CL 02 is closed.

CL ID	03	**Section no.**	A.2	**Date :** 04/07/2022
Description of CL				
PO to provide the image for location of ORHANİYE-2 GES.				
Project Owner's response				**Date :** 19/07/2022
The image for location of ORHANİYE-2 GES has been added.				
Documentation provided by Project Owner's				
Revised PSF.				
GCC Verifier assessment				**Date: 26/09/2022**
Provided image for location of ORHANIYA-2 GES has been verified and found to be ok.. The CL 03 is closed.				

Table 2. CARs from this Project Verification

CAR	01	**Section no.**	A.3	**Date :** 04/07/2022
Description of CAR				
The following details are not adequately presented: - Type of PV modules used is not clear (whether Mono / Poly Crystalline Technology) - Details of Inverter - Type of structure used for solar panel mounting				
Project Owner's response				**Date :** 19/07/2022
The details of all plants have been added in table 2 and table 3 of section A.3.				
Documentation provided by Project Owner's				
Revised PSF.				
GCC Verifier assessment				**Date: 26/09/2022**
PO is to provide the proof of technical specifications of the types of module, details of inverter and types of structure used for solar panel mounting. The CAR 01 is open.				
Project Owner's response				**Date :08/05/2023**
The technical specifications have been provided in LoD-2 "Technical Specifications". The technical specifications are included in the commissioning certificates.				
Documentation provided by Project Owner's				
LoD-2 "Technical Specifications"				
GCC Verifier assessment				**Date:** 09/05/2023
The above document has been revised and found to be ok. Thus, the CAR 01 is closed.				

CAR	02	**Section no.**	B.2	**Date :** 04/07/2022
Description of CAR				
The applicability of methodologies for AMS-I.D version 18.0 conditions is not matching with the conditions mentioned in the para of PSF.				
Project Owner's response				**Date :** 19/07/2022
Conditions have been revised.				
Documentation provided by Project Owner's				
Revised PSF				
GCC Verifier assessment				**Date: 26/09/2022**

The mentioned conditions has been corrected. In cover page & section B.1 of the PSF, under 'GCC Rules and Requirement' include reference of GCC clarification No.1 and GCC standard on Double Accounting. Kindly review and incorporate the same. The CAR 02 is open.
Project Owner's response **Date:08/05/2023**
It has been revised.
Documentation provided by Project Owner's
Revised PSF
GCC Verifier assessment **Date:09/05/2023**
The above correction has been implemented and revised. Thus, the CAR 02 is closed.

CAR	03	**Section no.**	ER Excel Sheet	**Date :** 04/07/2022
Description of CAR				
Project name mentioned in the Excel sheet is incorrect.				
Project Owner's response				**Date:** 19/07/2022
Project name has been corrected in Excel sheets.				
Documentation provided by Project Owner's				
Revised ER Excel sheet.				
GCC Verifier assessment				**Date: 26/09/2022**
The project name has been verified and found to be ok.. The CAR 03 is closed.				

CAR	04	**Section no.**	Excel Sheet	**Date :** 04/07/2022
Description of CAR				
PO to clarify the reason behind low generation in the year 2017.				
Project Owner's response				**Date:** 19/07/2022
ER sheet has been revised according to Feasibility Study.				
Documentation provided by Project Owner's				
Revised ER sheet.				
GCC Verifier assessment				**Date: 26/09/2022**
Provided Feasibility study report has been verified and found to be ok. The CAR 04 is closed.				

CAR	05	**Section no.**	Excel Sheet (J13, J14 and J15)	**Date :** 04/07/2022
Description of CAR				
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?				
Project Owner's response				**Date:** 19/07/2022
The PM section in ER sheet has been revised. Melden is written mistakenly. It has been corrected as Makascı-9.				
Documentation provided by Project Owner's				
Revised ER sheet.				
GCC Verifier assessment				**Date: 26/09/2022**
The ER sheet has been revised and found to be ok. The CAR 05 is closed.				

CAR	06	**Section no.**	IRR Excel Sheet	**Date :** 04/07/2022
Description of CAR				
Project name mentioned in the IRR sheet is incorrect. And also provide the IRR sheets for each PO as per the requirements addressing the investment analysis gudielines. Sensitivity on Generation is not provided. Clarify?				

Project Owner's response	**Date:** 19/07/2022
The IRR sheet has been revised.	
Documentation provided by Project Owner's	
Revised IRR sheet.	
GCC Verifier assessment	**Date: 26/09/2022**
The project name has been revised and found to be ok. The CAR 06 is closed.	

CAR	07	**Section no.**	E.1, S.2 and F	**Date :** 04/07/2022
Description of CAR				
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.				
Project Owner's response				**Date:** 19/07/2022
All documents have been shared in the relevant folder.				
Documentation provided by Project Owner's				
Revised documents.				
GCC Verifier assessment				**Date: 26/09/2022**
In Section E.1 of PSF, environmental indicators like solid waste pollution from Hazardous wastes, Solid waste Pollution from Batteries, Solid waste Pollution from end of life Products/ equipment are scored as +1, if any parameter is scored however monitoring of these parameters are currently not included in section B.7.1 of the PSF. Kindly review and include monitoring details for all relevant parameters. The CAR 07 is open.				
Project Owner's response				**Date:08/05/2023**
They are provided in section B.7.1 of the PSF.				
Documentation provided by Project Owner's				
Revised PSF				
GCC Verifier assessment				**Date: 09/05/2023**
The environment indicators has been implemented and revised. Thus, the CAR 07 is closed.				

Table 3. FARs from this Project Verification

FAR ID	01	**Section no.**		**Date:** 04/07/2022
Description of FAR				
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.				
Project Owner's response				**Date:** 19/07/2022
The explanation regarding this FAR has been given in section H.				
Documentation provided by Project Owner				
GCC Project Verifier assessment				**Date:** 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**		**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 ?**
Environmental impacts on the identified categories[14] indicated below.	*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* ***Not Applicable*** *(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* ***Harmless*** *(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* ***Harmful*** *(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* ***Harmful****.*	*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* ***Harmful****.*	*Re-evaluate risks after Risk Mitigation Action 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* ***Harmless*** *(No actions required)*	*Describe the monitoring approach and the parameters to be monitored for each impact that has been identified as Harmful 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* ***Yes*** *or and -1 for* ***No****)*	*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* ***Yes*** *or and -1 for* ***No****)*
Environmental Safeguards														
	SO_x emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-

[14] sourced from the CDM SD Tool and the sample reports are available (https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx)

Environment - *Air*	*NO_x emissions*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	CO_2 emissions	The project reduces CO_2 emissions since it reduces the amount of fossil fuel used. Thus, air pollution decreases.	N/A	The project reduces CO_2 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_2 emission than the baseline throughout the crediting period	+1	The project reduces CO_2 emissions since it reduces the amount of fossil fuel used. Thus, air pollution decreases.	N/A
	CO emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Suspended particulate matter (SPM) emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Fly ash emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Non-Methane Volatile Organic Compounds (NMVOCs)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Odor emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Noise Pollution	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		-	-
	Solid waste Pollution	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	+1

Environment - *Land*	*from Plastics*												
	Solid waste Pollution from Hazardous wastes	Damaged solar panels on site can cause adverse environmental impacts if not managed well.	N/A	N/A	Harmless	-	N/A	N/A	N/A	The details of the damaged and returned solar panel modules will be kept in the records for future verifications.	The project owner undertakes to manage the solar panel module waste in an appropriate manner and in accordance with applicable laws and regulations.	+1	Project owner provided mitigation plan to reduce the risk is not likely to cause any harm to the environment The appropriate monitoring plan has been put in place to monitor the risks identified due to the implementation of the project activity This will be monitored as per monitoring plan in the PSF section B.7.2 and assessment of the same is provided section D.3.7 of the Project Verification Report.	+1
	Solid waste Pollution from Bio-medical wastes	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-

	Solid waste Pollution from E-wastes	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		N/A	N/A
	Solid waste Pollution from Batteries	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	Disposal of waste is monitored in case of solid waste pollution caused by batteries in the project site.	The project owner undertakes to manage the battery in compliance to the prevailing laws and regulations.	+1	Project owner provided mitigation plan to reduce the risk is not likely to cause any harm to the environment The appropriate monitoring plan has been put in place to monitor the risks identified due to the implementation of the project activity. This will be monitored as per monitoring plan in the PSF section B.7.2 and assessment of the same is provided section D.3.7 of the Project Verification Report.	+1

	Solid waste Pollution from end-of-life products/ equipment	If the solar panel modules have not been managed well after their end-of-life, they might have negative impact for environment.	Waste Management Regulation[15]	-	Harmless	-	-	Damaged/defective solar module modules will be stored and disposed of in accordance with national/local laws.	Harmless	Details of damaged and returned solar modules will be retained for future verification.	The project owner undertakes to manage the solar panel module waste in an appropriate manner and in accordance with applicable laws and regulations.	+1	Project owner provided mitigation plan to reduce the risk is not likely to cause any harm to the environment The appropriate monitoring plan has been put in place to monitor the risks identified due to the implementation of the project activity. This will be monitored as per monitoring plan in the PSF section B.7.2 and assessment of the same is provided section D.3.7 of the Project Verification Report.	+1
	Soil Pollution from Chemicals (including Pesticides, heavy metals, lead, mercury)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-

[15] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5

	Soil erosion	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
Environment - *Water*	*Reliability/ accessibility of water supply*	N/A	N/A	-	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Water Consumption from ground and other sources	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Generation of wastewater	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Wastewater discharge without/with insufficient treatment	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Pollution of Surface, Ground and/or Bodies of water	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
Environment – *Natural Resources*	*Conserving mineral resources*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Protecting/ enhancing plant life	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Protecting/ enhancing species diversity	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Protecting/ enhancing forests	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-

	Protecting/ enhancing other depletable natural resources	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Conserving energy	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Replacing fossil fuels with renewable sources of energy	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_2 emission reduction will be calculated according to the applied methodology.	+1	The project activity replaces fossil fuels with solar energy as it's based on the baseline. 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.	+1
	Replacing ODS with non-ODS refrigerants	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
Note: 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.														

Net Score:	**+5**	
Project Owner's Conclusion in PSF:	The Project Owner confirms that the Project Activity will not cause any net harm to the environment.	
GCC Project Verifier's Opinion	The GCC Verifier certifies that the Project Activity is not likely to cause any net harm to Environment.	

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

Impact of Project Activity on		**Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards**									**Project Owner's Conclusion**		**GCC 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?**
Social impacts on the identified categories[16] indicated below.	*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 **Not Applicable** (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 **Harmless** (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 **Harmful** (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 **Harmful**.*	*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 identified as **Harmful**.*	*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 **Harmless** (No actions required)*	*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 harm (Mark +1 for **Yes** or and -1 for **No**)*		
Social Safeguards														

[16] sourced from the CDM SD Tool and the sample reports are available (https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx)

Social - *Jobs*	*Long-term jobs (> 1 year) created/ lost*	The project creates permanent job opportunities for the operational period. 10 people have been employed as long-term workers. Without this project, people would be engaged in farming or animal husbandry, but thanks to this work, they have permanent and regular jobs.	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 has been recorded. Labor law protects the employees. In addition, there are signed contracts between the project owner and the employees.	+1	The project operation has created new job opportunities in the area during operational phase of the project activity. The number of persons employed would be monitored through HR records and payroll records. This will be monitored as per monitoring plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the Project Verification Report.	+1
	New short-term jobs (< 1 year) created/ lost	The project creates short term job opportunities for the local people during construction stages. The project creates opportunities like construction worker, security personnel, logistics personnel etc.	All employment is 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 has been recorded. Labor law protects the employees. In addition, there are signed contracts between the project owner and the employees.	+1	The project operation has created new job opportunities in the area during operational phase of the project activity. The number of persons employed would be monitored through HR records and payroll records. This will be monitored as per monitoring	+1

													plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the Project Verification Report.	
	Sources of income generation increased / reduced	The project increases income for local people by creating job opportunities.	All payments and right comply with the Labor Law.[17]	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	This parameter is monitored on a yearly basis based on revenues generated and recurring expenses from the project activity. This will be verified based on the annual audited accounts book of the project owner. This will be monitored as per monitoring plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the Project Verification Report.	+!
Social - *Health & Safety*	*Disease prevention*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Reducing / increasing accidents	Occupational accidents at the site may be occurred.	All trainings and precautions are completed	N/A	-	Harmless	N/A	N/A	N/A	Records of trainings will be provided.	In order to prevent possible accidents, employees	+1	The Occupational accidents at the site may be occurred. The	+1

[17] https://www.mevzuat.gov.tr/MevzuatMetin/1.5.4857.pdf

			according to the HSE Law.[18]							are regularly provided with trainings by authorized institutions and people. Records of these trainings will be provided.		Records of trainings will be provided. The Occupational health and safety training is provided to all employees regularly. Moreover, new employees are provided to these trainings. Occupational health and safety training is provided to all employees regularly. Moreover, new employees are provided to these trainings.	
	Reducing / increasing crime	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Reducing / increasing food wastage	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Reducing / increasing indoor air pollution	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Efficiency of health services	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Sanitation and waste management	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Other health and	-	-	-	-	-	-	-	-	-	-	-	No risks identified	-

[18] https://www.mevzuat.gov.tr/MevzuatMetin/1.5.6331.pdf

	safety issues													
Social - *Education*	*Job related training imparted or not*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Educational services improved or not	N/A	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A		No Risks identified.	-
	Project-related knowledge disseminati on effective or not	N/A	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A		No risks identified	-
	Other educational issues	-	-	-	-	-	-	-	-	-	-	-	No risks identified	-
Social - *Welfare*	*Improving/ deterioratin g working conditions*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Community and rural welfare	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Poverty alleviation (more people above poverty level)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Improving / deterioratin g wealth distribution/ generation of income and assets	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-

	Increased or / deteriorating municipal revenues	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Women's empowerment	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Reduced / increased traffic congestion	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
	Other social welfare issues	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A		No risks identified	-
Note: 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.														
Net Score:	+ 4													
Project Owner's Conclusion in PSF:	The Project Owner confirms that the Project Activity will not cause any net harm to society.													
GCC Project Verifier's Opinion:	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 Verification Report

			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?**
Describe UN SDG targets and indicators ***See:*** ***https://unstats.un.org/sdgs/indicators/indicators-list/***	*Describe the UN-level target(s) and correspo-nding indicator no(s)*	*Has the host country declared the SDG to be a national priority? Indicate Yes or No*	*Define project-level SDGs by suitably modifying and customizing UN/ Country-level SDGs to the project scope.* ***For guidance see:*** *Integrating the SDGs into Corporate Reporting- A Practical Guide: https://www.unglobalcompact.org/docs/publications/Practical_Guide_SDG_Reporting.pdf*	*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*	*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*	*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*	*Describe the monitoring approach and the monitoring parameters to be applied for each project-level SDG target and Indicator*	*Describe how the Project Owner has concluded that the project is likely to achieve the identified Project level SDGs target(s).*	*Describe whether the project-level SDG target(s) is likely to be achieved by the target date (Yes or No)*		

			Case-study from Coca-Cola and other organizations to develop organization-wide SDGs (page 114): https://pub.iges.or.jp/pub/realising-transformative-potential-sdgs								
Goal 1: End poverty in all its forms everywhere	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Goal 3. Ensure healthy lives and promote well-being for all at all ages	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Goal 5. Achieve gender equality	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA

and empower all women and girls											
Goal 6. Ensure availability and sustainable management of water and sanitation for all	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	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 average 21,825 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 average 21,825 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	This project is renewable solar power project and the installations started operation from 08/09/2016 and same was verified with the commissioning certificates provided by the project owner. The generated power from the project activity is the clean energy and continuously monitored by the energy meters installed at the site and included in the monitoring plan in the PSF.	Yes
Goal 8. Promote sustained, inclusive and sustainable	SDG Target 8.5 "By 2030, achieve full and productive employment	Yes	Generating income and job opportunities	Providing employment opportunities for at least 10 people	Recruitment of at least 10 people, including	The project generate employment for both operation and	The number of people employed in the project	Personnel have been employed by the project	Yes	This is an indirect positive impact of the project	Yes

economic growth, full and productive employment and decent work for all	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 hourly earnings of female and male employees, by occupation, age and persons with disabilities				people with disabilities	construction period and created long-term employment for the people working at the construction site.	will be monitored through SGK (Social Security Institution) records or payroll records.	owner according to the regulations and the social security payments of the personnel are made regularly.		activity, which will help to reduce unemployment in the host country, which has a direct impact on the host country's GDP. This parameter is verifiable during the monitoring period. The number of permanent jobs created by the project parameter will be monitored and HR records will be used to monitor this parameter.	
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	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	Yes	Provides a clean and resilient power generation facility	The project is average 21,825 MWh resilient energy generation facility.	Providing clean energy	Providing clean energy by avoiding 14,147 tCO_2 annually.	The project has produced clean energy by implementing a solar power plant and helps the adaptation of clean energy technologies.	Check project implementation continues	Yes	This project is renewable solar power project and the installations started operation from 08/09/2016 and same was verified with the commissioning certificates provided by the project owner. The generated power from the project activity continuously monitored by the energy	Yes

	accordance with their respective capabilities". Related indicator: 9.4.1 CO_2 emission per unit of value added									meters installed at the site and included in the monitoring plan in section B.7.1 of the PSF.	
Goal 10. Reduce inequality within and among countries	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	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)	Yes	Decrease the amount of PM2.5 and PM10 emissions in the cities	Reduction of PM2.5 is 0.0196 $\mu g/m^3$. and reduction of PM10 is 0.0410 $\mu g/m^3$.	Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	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.	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	Project Owner operates the plant since 2016 and complies with targeted SDGs so far	Yes	The project Decrease the amount of PM2.5 and PM10 emissions in the cities. Annual mean levels of fine particulate matter. 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.	Yes

							Meteorology measures these levels regularly.				
Goal 12. Ensure sustainable consumption and production patterns	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Goal 13. Take urgent action to combat climate change and its impacts	SDG Target 13.3 "Improve education, awareness-raising and human and 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	Yes	Eliminate 14,147 tCO_2 annually	Commissioning of average 21,825 MWh renewable energy power plant	Reducing greenhouse gas emissions by 14,147 tCO_2 tons annually.	Since solar energy is used in the project, there is no greenhouse gas emission related to the project activity. Eliminates 14,147 tCO_2 tCO_2 annually.	Calculate avoided GHG emissions every year.	The plant is operated since 2016 by project owner and complied with targeted SDGs so far.	Yes	This is direct positive impact of the project which will avoid around 14,147 tCO_2 /year. The generated power from the project activity is the clean energy and continuously monitored by the energy meters installed at the site and included in the monitoring plan in the PSF.	Yes.
Goal 14. Conserve and	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA

sustainably use the oceans, seas and marine resources for sustainable development											
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
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	NA	NA
Goal 17. Strengthen the means of implementation and revitalize the global partnership for	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA

sustainable development											

SUMMARY	Targeted	Likely to be Achieved	
Total Number of SDGs	**5**	**5**	
Certification label (Bronze, Silver, Gold, Platinum, or Diamond) for the ACCs as defined in the PSF	**Platinum**	**Platinum**	

Project Verification Report

Appendix 8. Project Implementation and Monitoring Photographs

Location of all Solar Plants of Makasci-9 SPP Bundle in General

DOCUMENT HISTORY

Version	Date	Comment
V 3.1	31/12/2020	▪ The name of GCC Program's emission units has been changed from "Approved Carbon Reductions" or ACRs to "Approved Carbon Credits" or ACCs.
V 3.0	23/08/2020	▪ Revised version released on approval by the Steering Committee as per the GCC Program Process; ▪ Revised version contains the following changes: ○ Change of name from Global Carbon Trust (GCT) to Global Carbon Council (GCC); ○ Considered and addressed comments raised by the Steering Committee: ➢ during physical meeting (SCM 01, dated 29 Oct 2019, Doha Qatar); and ➢ electronic consultations EC01-Round 04 (17.08.2020 – 22.08.2020). ▪ Feedback from the Technical Advisory Board (TAB) of ICAO on GCC submissions for approval under CORSIA[19];
V 2.0	25/06/2019	▪ Revised version released for approval by the GCC Steering Committee. ▪ This version contains details and information to be provided, consequent to the latest worldwide developments (e.g., CORSIA EUC).
v1.0	01/11/2016	▪ Initial version released for approval by the GCC Steering Committee under GCC Program Version 1

[19]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

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