المجلس العالمي للبصمة الكربونية
GLOBAL CARBON COUNCIL

Project Submission Form

V3.2 - 2020

Contents

COVER PAGE- Project Submission Form (PSF)

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title of the Project Activity	**MASFEN-3 Solar Bundle**
PSF version number	07
Date of completion of this form	09/10/2023
Project Owner(s) (Shall be consistent with De-registered CDM Type B Projects)	Masfen İnşaat Enerji San. Ve Tic. A.Ş.

Project	Project Owner
Gitaş-1	AAB ENERJİ ÜRETİM TARIMSAL ÜRÜNLER GIDA İNŞAAT SANAYİ TİCARET A.Ş.
Metges Burdur	METGES ENERJİ ELEKTRİK ÜRETİM A.Ş.

Country where the Project Activity is located	Türkiye
GPS coordinates of the project site(s)	

Project	Latitude	Longitude
Gitaş-1	N 37º 43' 58"	E 33º 33' 26"
	37.7330	33.5574
Metges Burdur	N 37º 40' 47"	E 30º 15' 11"
	37.6799	30.2532

Eligible GCC Project Type as per the Project Standard
(Tick applicable project type)

☒ **Type A:**
- ☐ Type A1
- ☒ Type A2
  Sub-Type 1

☐ **Type B – De-registered CDM Projects:**[1]
- ☐ Type B1
- ☐ Type B2

[1] Owners of Type B projects shall fill in the form provided in Appendix 7.

Minimum compliance requirements	☒ Real and Measurable GHG Reductions ☒ National Sustainable Development Criteria (if any) ☒ Apply credible baseline and monitoring methodologies ☒ Additionality ☒ Local Stakeholder Consultation Process ☒ Global Stakeholder Consultation Process ☒ No GHG Double Counting ☒ Contributes to United Nations Sustainable Development Goal 13 (Climate Action)
Choose optional and additional requirements (Tick applicable label categories)	☒ Do-no-net-harm Safeguards to address Environmental Impacts ☒ Do-no-net-harm Safeguards to address Social Impacts ☒ Contributes to United Nations Sustainable Development Goals (in addition to Goal 13)
Applied methodologies (Shall be approved by the GCC or the CDM)	AMS-I.D.: Grid connected renewable electricity generation --- Version 18.0
GHG Sectoral scope(s) linked to the applied methodology(ies)	GHG-SS #1. Energy (renewable/non-renewable sources)

Applicable Rules and Requirements for Project Owners

(Tick applicable Rules and Requirements)

Rules and Requirements		Reference	Version
☒ ISO 14064-2			
☒ Applicable host country legal requirements /rules			
☒ GCC Rules and Requirements[2]	☒ Project Standard		V3.1
	☐ Approved GCC Methodology (XXXXX)		V2.0
	☒ Program Definitions		V3.1
	☒ Environment and Social Safeguards Standard		V2.0
	☒ Project Sustainability Standard		V2.1
	☒ Instructions in Project Submission Form (PSF)-template		V3.2
	☒ Clarification No. 01		V1.3
	☒ Clarification No. 02		V1.0
	☒ GCC Standard on Avoidance of Double Counting		V1.0
☒ CDM Rules[3]	☒ Approved CDM Methodology (AMS-I.D.)	AMS-I.D.: Grid connected renewable electricity generation	V18.0
	☐ Tool for the demonstration and assessment of additionality	TOOL 01	
	☐ Combined tool to identify the baseline scenario and demonstrate additionality	TOOL 02	
	☒ Tool to calculate the emission factor for an electricity system	TOOL 07	V07.0

[2] GCC Program rules and requirements: https://www.globalcarboncouncil.com/resource-centre.html
[3] CDM Program rules: https://cdm.unfccc.int/Reference/index.html

		☐ Demonstration of additionality of microscale project activities	TOOL 19	
		☒ Assessment of debundling for small-scale project activities	TOOL 20	V04.0
		☒ Demonstration of additionality of small-scale project activities	TOOL 21	V13.1
		☐ Additionality of first-of-its-kind project activities	TOOL 23	
		☐ Common practice	TOOL 24	
		☐ Investment analysis	TOOL 27	
		☒ Positive lists of technologies	TOOL 32	V03.0
		☐ Guidelines for objective demonstration and assessment of barriers		
		☐ Add rows if required		
Choose Third Party External Project Verification by approved GCC Verifiers[4] (Tick applicable verification categories)	☒ GHG emission reductions (i.e., Approved Carbon Credits **(ACCs)**) ☒ Environmental No-net-harm Label (**E+**) ☒ Social No-net-harm Label (**S+**) ☒ United Nations Sustainable Development Goals (**SDG+**) ☐ Bronze SDG Label ☒ Silver SDG Label ☐ Gold SDG Label ☐ Platinum SDG Label ☐ Diamond SDG Label ☒ CORSIA requirements (**C+**) ☐ Host Country Attestation on Double counting			

[4] **Note:** GCC Verifiers under the Individual Track are not eligible to conduct verifications for GCC Project Activities whose owners intend to supply carbon credits (ACCs) for use within CORSIA.

Declaration to be made by the Project Owner(s)[5] (Tick all applicable statements)	The Project Owner(s) declares that: ☒ The Project Activity complies with the eligibility of the applicable project type (A1, A2, B1 or B2) as stipulated by the Project Standard. ☒ The Project Activity shall start operations, and start generating emission reductions, on or after 1 January 2016. ☒ The Project Activity is eligible to be registered under the GCC program. ☒ No carbon credits generated by the proposed Project Activity will be claimed as carbon credits in any other GHG program anywhere in the world, either for compliance or voluntary purposes, for the entire 10-year GCC crediting period. ☒ The proposed Project Activity, if Type A, is NOT registered as a GHG Project Activity in any other GHG program or any other voluntary program anywhere in the world. ☒ The proposed Project Activity is NOT included as a component Project Activity (CPA) in a registered GHG Programme of Activities (PoA) under any GHG program (such as the CDM or any other voluntary program) anywhere in the world. ☒ The proposed Project Activity is NOT a CPA that has been excluded from a registered PoA under any GHG program (such as the CDM or any other voluntary program) anywhere in the world. Provide details (if any) below for the boxes ticked above.
	☒ If a GCC project chooses to apply to use ACCs under CORSIA, the Project Owner(s) is required to declare that they are aware that they must obtain and provide to the GCC and its Registry (operated by IHS Markit) a written attestation from the host country's national focal point (e.g., Ministry of Environment or Civil Aviation Authority) or focal point's designee, as required by CORSIA Emissions Unit Eligibility Criteria, which: ☒ Confirms the avoidance of double counting as required by CORSIA; ☒ Shall be made publicly available prior to the use of units from the host country under CORSIA; and ☒ Places all responsibility on the Project Owner(s) to replace any and all doubly claimed or counted ACCs by the host country, in the GCC registry operated by IHS Markit.

[5] The "Project Owner" means the legal entity or organization that has overall control and responsibility for the Project Activity.

	Provide details below for the boxes ticked above
	The Project Owner(s) declares that: ☒ All of the information provided in this document, including any supporting documents submitted to the GCC or its registry operator IHS Markit at any time, is true and correct; ☒ They understand that a failure by them to provide accurate information or data, or concealing facts and information, can be considered as negligence, fraud or willful misconduct. Therefore, they are aware that they are fully responsible for any liability that arises as a result of such actions. Provide details below for the boxes ticked above
Appendixes 1-7	Details about the Project Activity are provided in Appendixes 1 through 7 to this document.
Name, designation, date and signature of the Project Owner(s)	**On behalf of** **AAB ENERJİ ÜRETİM TARIMSAL ÜRÜNLER GIDA İNŞAAT SANAYİ TİCARET A.Ş.** **METGES ENERJİ ELEKTRİK ÜRETİM A.Ş.** **Masfen İnşaat Enerji San. Ve Tic. A.Ş.** **Recep Çildarul** **09/10/2023** 

1. PROJECT SUBMISSION FORM

Section A. Description of the Project Activity

A.1. Purpose and general description of the Project Activity

MASFEN-3 Solar Bundle is a bundled project which is operated by Masfen İnşaat Enerji San. Ve Tic. A.Ş.. The power plants belong to AAB Enerji Üretim Tarimsal Ürünler Gida İnşaat Sanayi Ticaret A.Ş. (legal owner) And Metges Enerji Elektrik Üretim A.Ş. (legal owner) as stated in their generation licences., Masfen İnşaat Enerji San. Ve Tic. A.Ş (project owner) being the parent company. The project is reducing national energy deficit and development of local industries as it allows the use of local sources for energy generation to meet the increasing demands.

The purpose of the project is to generate clean energy by harnessing the solar power and providing the energy to the Turkish national grid. By implementing the project, investors also aim to reduce dependency to the fossil fuels thereby reducing the sources of environmental pollution.

In this scope, project owners installed total number of 57,364 PV panels with the purpose of contributing to the national economy and meeting the increased electricity demand. Total number of PVs under Gitaş-1 name is 23,712 and under the name Metges Burdur is 22,364. Gitaş-1 is located in Karapınar district in Konya Province. Metges Burdur is located in Merkez district, in Burdur Province. Gitaş has an installed capacity of 8 MWe/14 MWm and Metges Burdur has an installed capacity of 6 MWe/10.5 MWm. Total output of the plant will be limited at 14 MWe, as stated in the official generation licenced issued by EMRA (Energy Market Regulatory Authority)[6].

Both plants are licenced by EMRA with licence numbers EÜ/8541-14/04223 and EÜ/8461-39/04197, of Gitaş-1 and Metges Burdur, respectively. Important dates are provided in Table 1.

The project activity will generate greenhouse gas (GHG) emission reductions by avoiding CO_2 emissions from electricity generation by fossil fuel power plants connected to Turkish National Power Grid. The average annual generated energy of 28,000 MWh[7], will be able to deliver a reduction in emissions of around 18,166 tCO2e (tons of carbon dioxide equivalent) per annum and 181,660 tCO2e in the first crediting period.

Main goals of the MASFEN-3 Solar Bundle include;

• Utilization of the solar potential of Türkiye in order to meet increasing electricity demand and maintain energy security. In total, the solar energy capacity of Türkiye is lower than 7% of the total installed capacity.[8]

• Reduction of GHG emissions through increasing share of renewable resources.

• Contribution to economic development by creating direct and indirect job opportunities during construction and operation phases.

[6] T.C. Enerji Piyasası Düzenleme Kurumu (EPDK)
[7] Provided in the respective Generation Licences as 16,000 MWh and 11,964 MWh. The value is rounded up to 28,000 MWh for simplicity. These values are indicated at the official generation licence issued by EMRA, as well as the installed capacities.
[8] https://webapi.teias.gov.tr/file/39abb292-4b3e-4e70-9e08-914d0ba9bd43?download

• Reduction of import dependency on fossil fuel weighed electricity sector and diversify generation mix through use of local resources.

• Contribution to sustainable development through supporting local community and local economy.

In terms of local benefits, the project mainly contributes to the reduction of local air pollutants and local employment.

Table 1. Milestones of the Project

Milestone	Date
EIA approval for Gitaş-1	22/11/2016
Connection agreement of Metges Burdur	04/12/2018
EIA approval for Metges Burdur	17/04/2018
Generation Licence of Metges Burdur	07/03/2019
Generation Licence of Gitaş-1	18/04/2019
EIA approval for Metges Burdur (revision)	25/08/2020
EIA approval for Gitaş-1 (revision)	31/08/2020
Connection agreement of Gitaş-1	10/09/2020
System usage agreement of Metges Burdur	15/10/2020
System usage agreement of Gitaş-1	21/10/2020
Panel Agreement of of Metges Burdur	06/08/2021
Panel Agreement of Gitaş-1	09/09/2021
Provisional acceptance of Metges Burdur	27/10/2021
Provisional acceptance of Gitaş-1	04/11/2021

In terms of local benefits, the project mainly contributes to the reduction of local air pollutants and local employment.

The project is expected to contribute 3 SDGs which are SDG 7, 8 and 13.

SDG 7 Affordable and Clean Energy: The project contributes SDG Target 7.2 “By 2030, increase substantially the share of renewable energy in the global energy mix” by the utilization of biomass as a renewable energy source.

SDG 8 Decent Work and Economic Growth: The project creates direct and indirect employment opportunities during construction and operation phases, so it contributes to 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”.

SDG 13 Climate Action: The project produces clean renewable energy by diminishing CO_2 emissions. Therefore, it contributes SDG Target 13.2: “Integrate climate change measures into national policies, strategies and planning”. Target 13.3 “Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning”.

The project boundary is considered as the National Electricity Grid of Türkiye according to applied tool. The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the power plant is connected to.

According to the methodology baseline scenario has been identified 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”.

A.2. Location of the Project Activity

Address and geodetic coordinates of the physical site of the Project Activity			
Physical address		**Latitude**	**Longitude**
Gitaş-1	Karapınar district in Konya Province.	N 37º 43' 58''	E 33º 33' 26''
		37.7330	33.5574
Metges Burdur	Merkez district, in Burdur Province	N 37º 40' 47''	E 30º 15' 11''
		37.6799	30.2532

Figure 1. Site photographs of Konya Gitaş-1

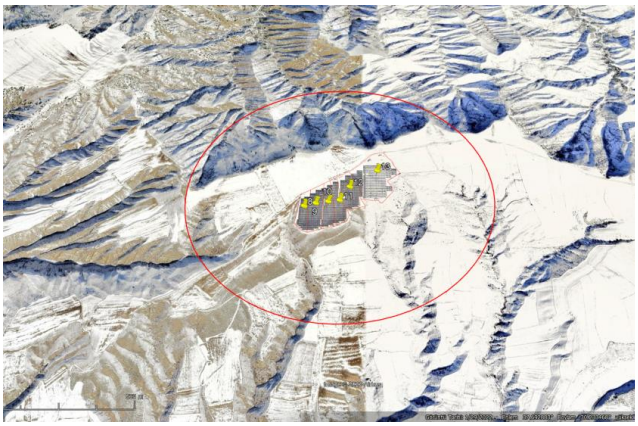


Figure 2. Site photographs of Metges Burdur

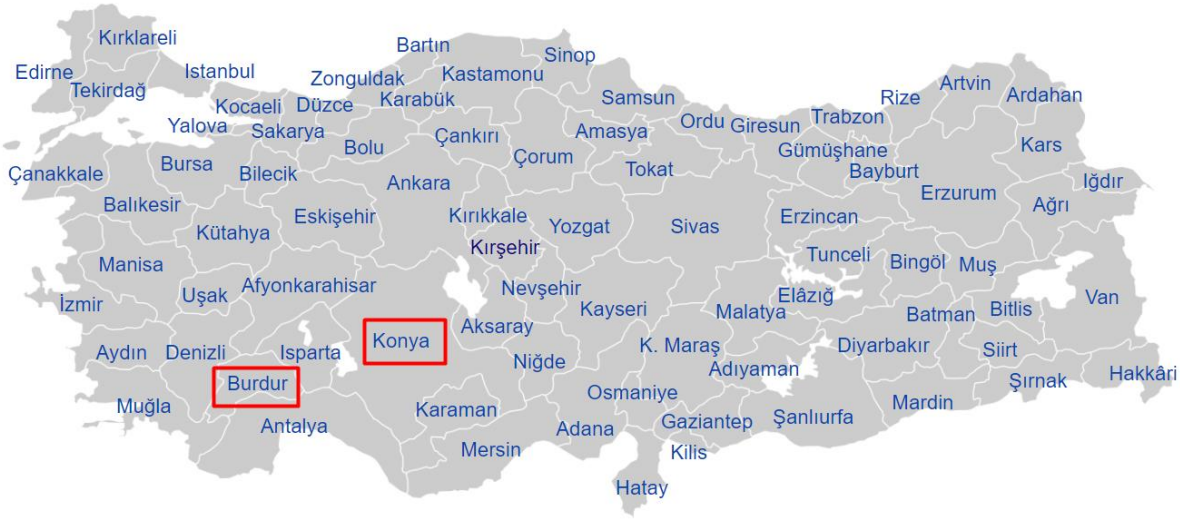


Figure 3. Location of Gitaş-1 and Metges Burdur

The project boundary is considered as the National Electricity Grid of Türkiye according to applied tool. The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the power plant is connected to.

A.3. Technologies/measures

Technical information on each plant are given in the tables below. Lifetime of the equipment are considered 25 years.

Table 1. Technical information on the solar panels

	Brand	Model	Maximum module	Number of	Operation Start Date	Capacity (MWe)	Capacity (MWm)

			power (Wp)	modules			
Gitaş-1	Alfa Solar[9]	A3S72M-400	400	34190	04/11/2021	8	14
Metges Burdur	CW Enerji[10]	CWT455-144HCMBPM	455	23174	27/10/2021	6	10.5
				57364		14	24.5[11]

Table 2. Technical information on the inverters

	Brand	Model	Number of inverters	Operation Start Date
Gitaş-1	Sungrow	SG250HX[12]	40 pieces	04/11/2021
Metges Burdur	Sungrow	SG250HX	28 pieces	27/10/2021

Table 3. Technical information on electricity meters

	Main Meter				Spare Meter				
	Brand	**Type**	**Class**	**Serial Nr.**	**Brand**	**Type**	**Class**	**Serial Nr.**	**Operation Start Date**
Gitaş-1	Landis	Gyr E550	0.5S	40304881	Makel	C520.AM T2556	0.5S	75002204	04/11/2021
Metges Burdur	Luna	LUN6	0.5S	69206308	Makel	C520.AM T2556	0.5S	80281407	27/10/2021

The project is connected to the grid at these following connection points:
Konya Gitaş-1 : Karapınar TM (transformation center) 31.5/154 kV
Metges Burdur : Burdur TM (transformation center) 31.5/154 kV

Plant load factor (PLF) is calculated as follows:

$$PLF = \frac{Total\ Annual\ Electricity\ Generation}{(Total\ Installed\ Power \times Operating\ Time\ of\ the\ Power\ Plant\ in\ a\ Year)}$$

Annual average generation of the years 2021, 2022 and 2023 was used to calculate the PLF (please see ER Excel Sheet). Therefore;

$$PLF_{Gitaş} = \frac{21{,}079.94\ MWh/year}{8\ MWe \times 8769\ hours/year} \times 100\% = 30.08\%$$

$$PLF_{Metges\ Burdur} = \frac{15{,}785.26\ MWh/year}{6\ MWe \times 8769\ hours/year} \times 100\% = 30.03\%$$

[9] https://www.alfasolarenerji.com/AlfaSolarEnerjiKatalogTr2021.pdf
[10] https://indir.cw-enerji.com/pdf/CWT450-144HCMBPM.pdf
[11] As per the clarification of CDM, applicability is based on max output. For proposed projects, max electrical output is below 15 MWe, therefore, there is no issue about applicability of the methodology. : https://cdm.unfccc.int/UserManagement/FileStorage/H8BA404H8U5X453E6B3R74BPP5CIHP
[12] https://en.sungrowpower.com/upload/file/20210108/DS_20201121_SG250HX%20Datasheet_V1.5.4_EN.pdf.pdf

According to the methodology baseline scenario has been identified 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”.

A.4. Project Owner(s)

Location/ Country	Project Owner(s)	Where applicable[13], indicate if the host country has provided approval (Yes/No)
Türkiye	1.Masfen İnşaat Enerji San. Ve Tic. A.Ş. 2.AAB Enerji Üretim Tarimsal Ürünler Gida İnşaat Sanayi Ticaret A.Ş. 3.Metges Enerji Elektrik Üretim A.Ş.	No

A.5. Declaration of intended use of Approved Carbon Credits (ACCs) generated by the Project Activity

The Project Activity is expected to generate ACCs for a full 10-year crediting period and supply the credits to offset the following GHG emissions:

Period		Name of the Entities	Purpose and Quantity of ACCs to be supplied
From	To		
27/10/2021	26/10/2031	CORSIA	ACCs from the project activity are planned to be used to financially support the project activity. Quantity of ACCs are estimated as 181,660 tCO_2.

Carbon credits (ACCs) from the Project Activity would not be double counted. The project activity is not a part of any other GHG/non-GHG, compliance/voluntary carbon mechanism, or any other international emission reduction attributes. GCC is the only program to which project has applied.

A.6. Additional requirements for CORSIA

Please see Section E and F.

Condition	Demonstration

[13] For example, *Project Coordination Form* is to be filled-in by Project Owners for projects located in Qatar. A written attestation from the host country’s national focal point or the focal point’s designee, as required by CORSIA (Refer section A.5 of the PSF guidelines).

(a) Comply with the Environment and Social Safeguards Standard to ensure that the Project Activity does not cause any net harm to the environment or society and provides an opportunity to demonstrate this achievement by obtaining the additional certification labels E+ and S+. Please refer to Section E of this document.	The project complies with Environment and Social Safeguards Standard to ensure that the Project Activity does not cause any net harm to the environment or society. These achievements are demonstrated by certification labels E+ and S+ and these are demonstrated in Section E.
(b) Comply with the Project Sustainability Standard to ensure that the Project Activity demonstrates the level of contribution towards achieving the United Nations Sustainability Development Goals (SDGs) and provides an opportunity to demonstrate this achievement by obtaining the additional SDG+ label (Bronze, Silver, Gold, Platinum, or Diamond). Please refer to Section F of this document.	The project complies with Project Sustainability Standard to ensure that the Project Activity demonstrates the level of contribution towards achieving the United Nations Sustainability Development Goals (SDGs). These achievements are demonstrated by SDG+ label, which is Silver for this project.
(c) Obtain and provide to the GCC and its Registry (operated by IHS Markit), a written attestation from the host country's national focal point or the focal point's designee, as required by CORSIA Emissions Unit Eligibility Criteria (paragraph 7 (c) of the Carbon Offset Credit Integrity Assessment Criteria) and Programme Application Form – Appendix A – Supplementary Information Form (refer to section 3.7.8. with respect to the Host Country Attestation on Double Counting), which shall be made publicly available prior to the use of units from the host country under CORSIA	HCLOA letter will be submitted by PO to GCC at the time of issuance of project activity in line with para 16 of "Standard on Avoidance of Double Counting" v1.0 dated 09/03/2022.

Section B. Application of selected methodology(ies)

B.1. Reference to methodology(ies)

The United Nations approved consolidated baseline methodology applicable to this project is AMS-I.D.: Grid connected renewable electricity generation, version 18.0[14]

AMS-I.D refers to the following tools:

- Tool 07 : "Tool to calculate the emission factor for an electricity system", version 7[15],
- Tool 21 : "Demonstration of additionality of smallscale project activities", version 13.1[16] which refers to Tool 32 : "Positive lists of Technologies", version 03.0[17]

Following are also used:

[14] https://cdm.unfccc.int/methodologies/DB/W3TINZ7KKWCK7L8WTXFQQOFQQH4SBK
[15] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf
[16] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-21-v13.1.pdf
[17] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-20-v1.pdf

- GCC Standard on Avoidance of Double Counting, version 1.0[18]
- Tool 20 Assessment of debundling for small-scale project activities version 04.0[19]

B.2. Applicability of methodology(ies)

The selected methodology is in line with the requirements and is therefore justified to be used because of the following reasons:

Project meets the applicability criteria defined by the selected methodology, which is AMS-I.D, ver 18.0:

No.	Applicability Conditions	The Project
1	This methodology is applicable to project activities that: (a) Install a Greenfield plant; (b) Involve a capacity addition in (an) existing plant(s); (c) Involve a retrofit of (an) existing plant(s); (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s).	The project activity is a Greenfield, grid connected renewable electricity generation project.
2	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/m2 ; (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	The project activity is the installation of solar power plant. Hence this condition is N/A.
3	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 activity is a Greenfield, grid connected renewable electricity generation project, and there is no new unit in the project activity.
4	Combined heat and power (co-generation) systems are not eligible under this category	The project does not involve combined heat and power generation activity.
5	In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.	The Project is a solar plant with renewable components only and doesn't involve any type of capacity addition of renewable energy generation units at an existing renewable power generation facility. capacity

[18] https://www.globalcarboncouncil.com/wp-content/uploads/2022/03/Standard-on-Avoidance-of-Double-Counting-V1-1.pdf

[19]

		of the project activity is less than 15 MWe. Hence, this condition is N/A.
6	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.	The project does not involve capacity addition, a retrofit of (an) existing plant(s) or a replacement of (an) existing plant(s).
7	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 nder this methodology. If the recovered methane is used for heat generation or cogeneration other applicable Type-I methodologies such as "AMS-I.C.: Thermal energy production with or without electricity" shall be explored.	The project is the installation of solar power plant. Hence, this condition is N/A.
8	In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply.	The project is the installation of solar power plant. Hence, this condition is N/A.

- The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available.

Since there exists no delineation of project electricity system or connected electricity systems by DNA, following criteria has been used to determine the existence of significant transmission constraints:

- In case of electricity systems with spot markets for electricity: there are differences in electricity prices (without transmission and distribution costs) of more than 5 percent between the systems during 60 percent or more of the hours of the year.
- The transmission line is operated at 90% or more of its rated capacity during 90% percent or more of the hours of the year.

Since the project output is fed to the Turkish electricity grid which does not involve any distinct electricity systems that applies different price, first criteria defined above is not applicable. Also, since the transmission line between the proposed projects and nearest substation is built within the scope of the project and there exist no information on grid capacity utilization, second criteria is also inapplicable. Based on assessment above, it is difficult to conclude with a significant transmission constraint or grid boundary. Since there is no dispatch grid system in Türkiye, the project boundary is considered as the National Electricity Grid of Türkiye according to applied tool. The geographical and physical boundaries of the Turkish grid and location of the power plants are well identified as given diagram below.

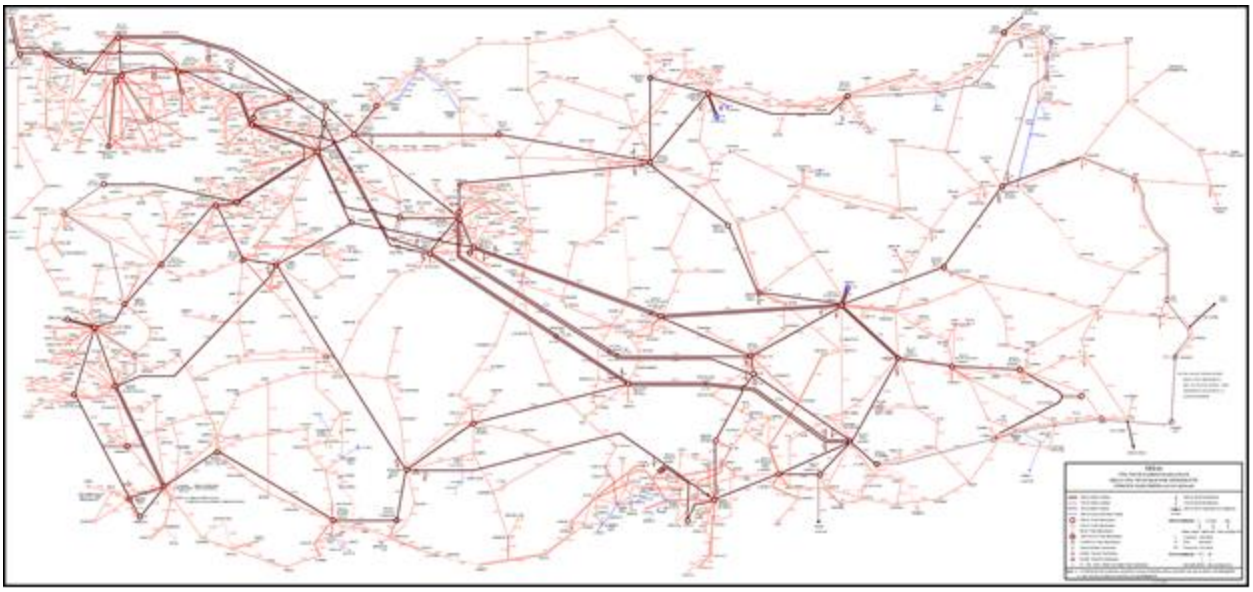


Figure 4. Turkish electricity grid

As per AMS-I.D methodology Section 2.2.9, the applicability conditions included in the tools used shall also be discussed.[20]

- Tool 07 “Tool to calculate the emission factor for an electricity system”, Version 7[21]: This tool is applicable and used for the calculation of OM, CM and CM since the project activity includes grid power plants and supplies electricity to the grid.

- Toold 32 “Positive lists of Technologies”, Version 03.0[22]: This tool is used as a reference that solar photovoltaic grid-connected electricity generation technologies are considered for the positive list, which shows technologies that confer automatic additionality.

Applicability as per “Tool 07 : Tool to calculate the emission factor for an electricity system, version 07.0”

No.	Applicability Conditions	The Project
1	This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	The project activity uses the calculated OM, BM and CM values which published by Turkish Ministry of Energy and Natural Resources which is indicating Türkiye’s National Electric Grid Emission Factor for the year of 2020 . Thus, re-estimating the OM, BM and CM values will not be conducted by the project activity. Because publication

[20] https://cdm.unfccc.int/filestorage/2/P/7/2P7FS6ZQAR84LG3NMKYUH50WI9ODBC/EB81_repan24_AMS-I.D_ver18.pdf?t=UHp8cjNzZHhlfDD9s5G5hUiUHORGy-hX3U_z

[21] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf

[22] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-32-v3.0.pdf

		includes calculated Emission Factor values that are Operating Margin (OM), Growth Based Margin (Build Margin-BM) and Combined Margin (CM) Emission Factors, for the relevant year with usage of the UNFCCC's Clean Development Methodology Tool 07-V07.0.
2	Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two sub-options under the step 2 of the tool are available to the project owners, i.e. option IIa and option IIb. If option IIa is chosen, the conditions specified in "Appendix 1: Procedures related to off-grid power generation" should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid power plants in the electricity system; and that factors which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity.	CO_2 emission factor for the displacement of electricity generated by power plants in an electricity system is determined by calculating the "combined margin" emission factor (CM) of the electricity grid considering only-grid-connected plants.
3	In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.	This project is a GCC project, not a CDM project. Hence, this condition is N/A.
4	Under this tool, the value applied to the CO_2 emission factor of biofuels is zero.	The project does not involve biofuels in any way.

Applicability as per "Tool 32 : Positive lists of technologies, version 03.0"

No.	Applicability Conditions	The Project
1	The use of this methodological tool is not mandatory for the project owners of a CDM project activity or CDM PoA for demonstrating their additionality.	The project applies a small-scale methodology, AMS-I.D v18, that refers Tool 21 : "Demonstration of additionality of smallscale project activities", version 13.1, which refers to Tool 32 : "Positive lists of Technologies", version 03.0. Therefore, this condition is met.
2	This methodological tool shall be applied in conjunction with a small-scale or large-scale methodology which refers to this tool.	The project applies a small-scale methodology, AMS-I.D v18, that refers Tool 21 : "Demonstration of additionality of smallscale project activities", version 13.1, which refers to Tool 32 : "Positive lists of Technologies", version 03.0. Hence, this condition is met.
3	The positive lists as contained in section 5 of this tool are valid up to 28 November 2022. Notwithstanding the provisions on the validity of new, revised and previous versions of methodologies	Tool 32 "Positive lists of technologies" version 04.0 have been released on 11 March 2022. However, as per the statement in the Clarification No 02 version 1.0 issued afterward, it was stated that the projects listed before 11 March 2022 can benefit from Tool 32 "Positive lists of

	and methodological tools in the "Procedure: Development, revision and clarification of baseline and monitoring methodologies and methodological tools", there will be no grace period for the application of this tool and the validity of the positive list after this date, including in cases where further technologies are added to the positive list through revisions of this tool before this date.	technologies" version 03.0. This project activity was listed on 14 February 2022 as can be seen on GCC Portal and is eligible to use Tool 32 version 03.0. In addition, the project activity has requested for registration before 5th Nov.2022 in line with para 10 (b) of Clarification No 02 version 1.0.

Applicability as per "Tool 20 : Assessment of debundling for small-scale project activities", version 04.0

No.	Applicability Conditions	The Project
1	This methodological tool is applicable to proposed small-scale project activities and small-scale CPAs in order to check whether they are debundled components of largescale project activities.	The project is small-scale project activity. Tool 20 Version 4.0 is used to demonstrate that the project activity is not involved in debundled components of largescale project activities. Hence, this tool is applicable.

Applicability as per "Tool 21 : Demonstration of additionality of smallscale project activities, version 13.1"

No.	Applicability Conditions	The Project
1	The use of the methodological tool "Demonstration of additionality of small-scale project activities" is not mandatory for project owners when proposing new methodologies. Project participants and coordinating/managing entities may propose alternative methods to demonstrate additionality for consideration by the Executive Board.	No new methodologies are proposed. Additionality is demonstrated by using Tool 32 : Positive lists of technologies, version 03.0.

Eligibility as per GCC "Clarification No. 02" version 01[23]

No.	Conditions	The Project
1	(b) If a project has already been submitted to GCC program before March 11th 2022 (included), CDM Tool 32: Positive lists of technologies, version 3 can be applied, as long as request for registration can be submitted before 5th Nov. 2022 or within one year after the date of first submission to GCC Program for GSC, whichever is earlier.	Submission date of the project is on 10/02/2022 which is before 11/03/2022. Hence, CDM Tool 32: Positive lists of technologies, version 3 can be applied, as long as request for registration can be submitted before 5th Nov. 2022.

[23] https://www.globalcarboncouncil.com/wp-content/uploads/2022/03/Clarification-No.-02.pdf

Two-level analysis for formulation of homogeneous bundles

The project also meets Clarification No. 01 criteria as per GCC Rules & Requirements. A single bundled project is developed by organizing several homogeneous bundles of activities put together. Two-level analysis is needed for determination of homogeneous bundles for a bundled project.

No.	Condition	The Project
1	Level-1 analysis – Consideration of key aspects for developing Homogeneous Bundles: A homogeneous bundle shall be formed based on the analysis of multiple activities to find out similarity in technological, economic and environmental/methodological considerations. These are explained as follows. (i) Similarity in Technological Considerations: All activities in a bundle shall apply same type of technology as allowed by the applicable methodology or combination of methodologies3, if allowed, addressing 'cross-effects' (e.g., a single project developed to include only solar PV technology and applying ACM0002 and AMS- I.D). (ii) Similarity in Economic and Policy Considerations: Activities under one bundle shall have same additionality approach (investment or barrier analysis as stipulated by the applicable methodology): (iii) Similarity in Environmental or Methodological Considerations: Activities in one bundle shall have: i. application of same methodology (or approved combinations where cross effects are addressed); ii. same baseline approach and the outcome; and iii. same monitoring approach and parameters for the part included for GHG.	The project is a bundle of projects which apply the same type of technology. (i) The project is a single project developed to include only solar PV technology and applying AMS- I.D. Hence, the project complies with the clarifications. (ii) Activities under this bundle have the same additionality approach. Since solar photovoltaic technologies are covered under Tool 32 : "Positive lists of Technologies", version 03.0, they are automatically additional. (iii) Activities under this bundle have the same application of methodology and same baseline approach. Their monitoring approach are also the same.
2	Level-2 analysis – Criteria for differentiating the bundles: Formulate a separate bundle of activities if any of the following criteria is not complied with. (a) Same baseline of each activity within a bundle; (b) Same output of each activity (e.g., heat or power or cogeneration); (c) Same Technology of each activity (e.g., wind or solar);	Level-2 analysis is not required since the project meets criteria (c).

The project activity is not a debundled component of a larger project activity as explained below. As per para 9 of TOOL 20 Assessment of debundling for small-scale project activities,

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 owners;
(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.

The plants and their respective project owners are provided below.

Table 4. Project owners (legal owners) of the each solar power plant in the bundle

Project	Project Owner
Gitaş-1	AAB ENERJİ ÜRETİM TARIMSAL ÜRÜNLER GIDA İNŞAAT SANAYİ TİCARET A.Ş.
Metges Burdur	METGES ENERJİ ELEKTRİK ÜRETİM A.Ş.

There are no other registered small-scale CDM project activity or an application to register another small-scale CDM project activity by any of the project owners given in Table 4. Therefore, as provided in para 9 of Tool 20, (b), (c) and (d) are inapplicable since (a) is negative.
In conclusion, the project activity is not a debundled component of a larger project activity.

	Determining the occurrence of debundling	
10	If a proposed small-scale project activity is deemed to be a debundled component in accordance with paragraph 2 above, but total size of such an activity combined with the previous registered small-scale CDM project activity does not exceed the limits for smallscale CDM project activities as set in paragraph 6 (c) of the decision 17/CP.7,1 the project activity can qualify to use simplified modalities and procedures for small-scale CDM project activities.	No proposed small-scale project activity is a debundled component, therefore, small-scale CDM project activity limits are not exceeded in any way.
	Type I project activities	
11	In cases where a DOE has, in assessing the possibility that a small scale project is a debundled component of a large scale project activity, determined that two or more project activities are taking place within one kilometer of each other and with the same project owners: (a) The DOE shall ensure that these projects are described in the PDD and that the validation report contains specific details on how it has been determined that the project activities are not a debundled component of a large scale project activity; (b) The DOE shall consider the project activities to be a debundled component of a large scale project activity even in cases where they are taking place in different project categories, if the project activities are Type 1 project activities providing energy to the same user and	

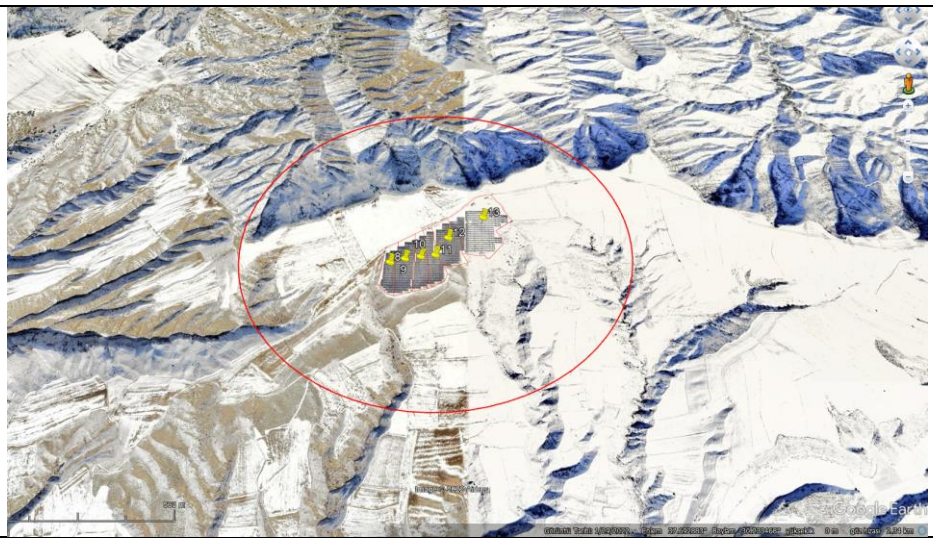
	are registered, or submitted for registration, with 2 years of each other.	
	Transport project activities	
12	A proposed small-scale transport sector project activity involving boundaries/sources that are mobile, shall be deemed to be a debundled component of a large project activity if there is a registered small-scale CDM project activity or an application to register another small-scale CDM project activity: (a) With the same project owners; and (b) In the same project category and technology/measure; and (c) Registered within the previous 2 years.	The project is not in the transport sector. Therefore, para 12 and 13 are not applicable to the projects in the bundle and the bundle itself.
13	The above provision excludes the condition to check that the project boundary is within 1 km of the project boundary of the proposed small-scale activity at the closest point and is also applicable to the guidance for determining the occurrence of debundling under a programme of activities (PoA).	
	Determining the occurrence of debundling for multiple CDM projects involving independent subsystem/measures	
14	If each of the independent subsystems/measures (e.g., biogas digesters, residential solar energy systems, kerosene or incandescent lighting replacements) included in one or more CDM project activities is no greater than 1% of the small scale thresholds defined by the applied methodology and the subsystems/measures are indicated in the PDDs to be each implemented at or in multiple locations (e.g., installed at or in multiple homes) then these CDM project activities are exempted from performing a de-bundling check, i.e., considered as being not a de-bundled component of a large scale activity.	The project does not involve independent subsystem/measures. Therefore, para 14 are not applicable to the projects in the bundle and the bundle itself.
	Determining the occurrence of debundling under a programme of activities (PoA)	
15	For the purposes of registration of a Programme of Activities (PoA), a proposed smallscale CPA of a PoA shall be deemed to be a de-bundled component of a large scale activity if there is already an activity, which satisfies both conditions (a) and (b) below: (a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and; (a) (b) The boundary is within 1 km of the boundary of the proposed small-scale CPA, at the closest point.	There are no PoAs that have the same activity implementer as the proposed small scale CPA or have a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure and the boundary is within 1 km of the boundary of the proposed small-scale CPA, at the closest point.

16	If a proposed small-scale CPA of a PoA is deemed to be a debundled component in accordance with paragraph 2 above, but the total size of such a CPA combined with a registered small-scale CPA of a PoA or a registered CDM project activity does not exceed the limits for small-scale CDM and small-scale A/R project activities as set out in Annex II of the decision 4/CMP.14 and 5/CMP.1 respectively, the CPA of a PoA can qualify to use simplified modalities and procedures for small-scale CDM and small-scale A/R CDM project activities.	The proposed small-scale CPA of a PoA is not deemed to be a debundled component.
17	If each of the independent subsystems/measures (e.g., biogas digester, solar home system) included in the CPA of a PoA is no larger than 1% of the small-scale thresholds defined by the methodology applied, then that CPA of PoA is exempted from performing de-bundling check i.e., considering as not being a de-bundled component of a large scale activity.	The proposed project is not a de-bundled component of a large scale activity.

Further explanation for para 9 clause (d) of TOOL 20 Assessment of debundling for small-scale project activities.

Konya Gitaş-1

There are some solar power plants whose project boundary is within 1 km of the project boundary of the proposed small-scale activity at the closest point (outlined with blue color while this project is outlined with red). However, these power plants are not owned by AAB ENERJİ ÜRETİM TARIMSAL ÜRÜNLER GIDA İNŞAAT SANAYİ TİCARET A.Ş.. Therefore, there are no other registered small-scale CDM project activity or an application to register another small-scale CDM project activity by any of the project owner given in Table 5 (AAB ENERJİ ÜRETİM TARIMSAL ÜRÜNLER GIDA İNŞAAT SANAYİ TİCARET A.Ş.. for this plants), whose project boundary is within 1 km of the project boundary of the proposed small-scale activity at the closest point. Moreover, this is a licenced power plant. Therefore, it is connected to one electricity meter and meter readings are done by EPİAŞ for this power plant through the designated electricity meter. No other power plant can connect to this meter.
Metges Burdur



There are no power plants whose project boundary is within 1 km of the project boundary of the proposed small- scale activity at the closest point.

There are no other registered small-scale CDM project activity or an application to register another small-scale CDM project activity by any of the project owners given in Table 5 (METGES ENERJİ ELEKTRİK ÜRETİM A.Ş. for these plants), whose project boundary is within 1 km of the project boundary of the proposed small- scale activity at the closest point.
Moreover, this is a licenced power plant. Therefore, it is connected to one electricity meter and meter readings are done by EPİAŞ for this power plant through the designated electricity meter. No other power plant can connect to this meter.

B.3. Project boundary, sources and greenhouse gases (GHGs)

The project boundary is considered as the National Electricity Grid of Türkiye according to applied tool. The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the power plant is connected to.

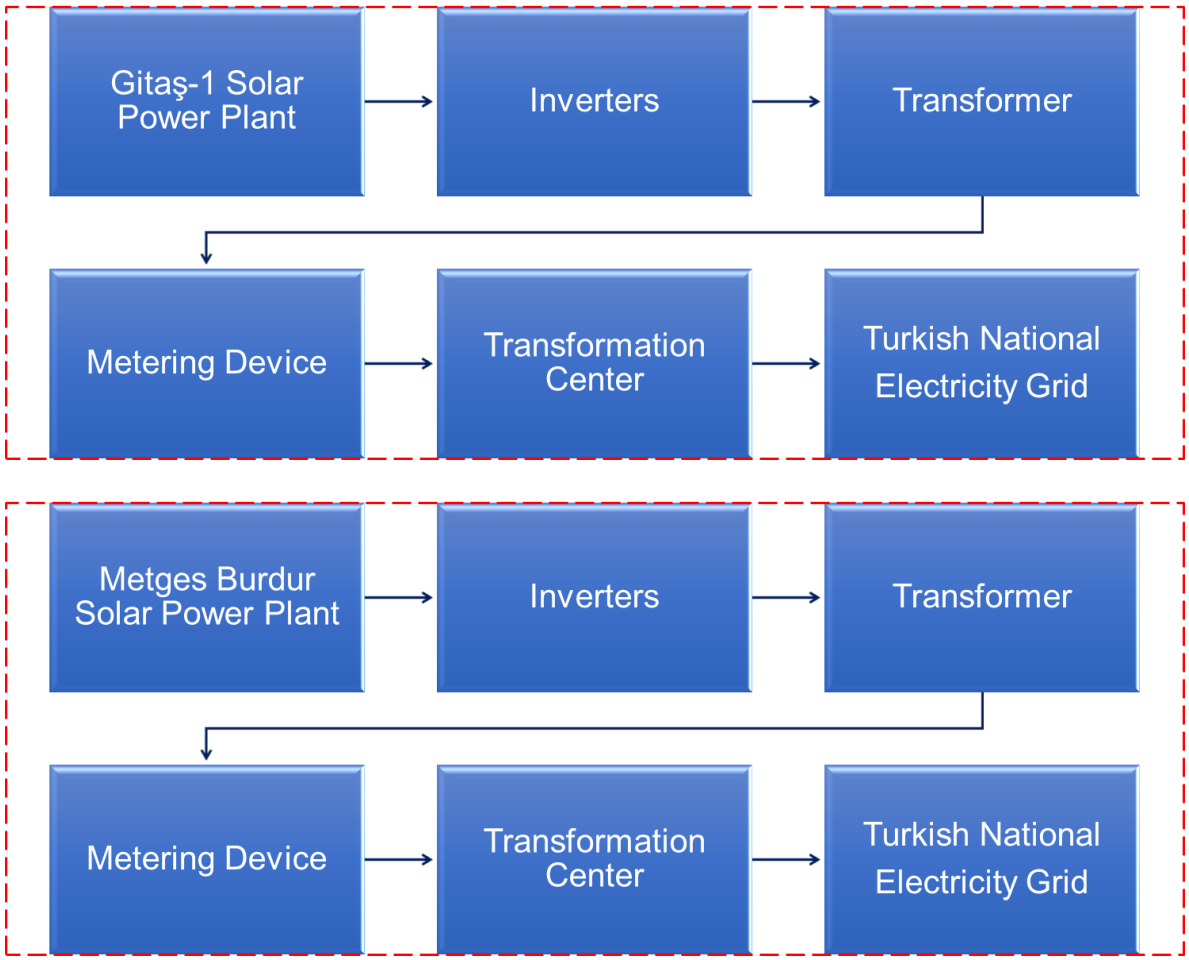


Figure 5. Project boundary

The project does not involve any other emissions sources not foreseen by the methodologies. The greenhouse gases and emission sources included in or excluded from the project boundary are shown in table below.

The table below provides an overview of the emissions sources included or excluded from the project boundary for determination of baseline and project emissions.

Source		GHG	Included?	Justification/Explanation
Baseline	Electricity generation	CO_2	Yes	Main emission source
		CH_4	No	Minor emission source. Excluded for simplification
		N_2O	No	Minor emission source. Excluded for simplification
Project Activity	For geothermal power plants, fugitive emissions of CH_4 and CO_2 from non-condensable gases contained in geothermal steam.	CO_2	No	Not Applicable. Project is not a geothermal power plant.
		CH_4	No	Not Applicable. Project is not a geothermal power plant.
		N_2O	No	Not Applicable. Project is not a geothermal power plant.
	CO_2 emissions from combustion of fossil fuels for electricity generation in solar thermal power plants and geothermal power plants.	CO_2	No	Not Applicable. Project is a solar power plant.
		CH_4	No	Not Applicable. Project is a solar power plant.
		N_2O	No	Not Applicable. Project is a solar power plant.
	For hydro power plants, emissions of CH_4 from the reservoir.	CO_2	No	Not Applicable. Project is not a hydro power plant.
		CH_4	No	Not Applicable. Project is not a hydro power plant.
		N_2O	No	Not Applicable. Project is not a hydro power plant.

B.4. Establishment and description of the baseline scenario

This project follows an approved small-scale UNFCCC methodology which is AMS-I.D.: Grid connected renewable electricity generation --- Version 18.0 .

According to the methodology baseline scenario has been identified 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”[24], AMS-I.D ver 18.0, section 5.2 paragraph 19.

Turkish electricity generation is mainly composed of thermal power plants and the share of renewable resources; especially hydroelectric power plants have decreased significantly in recent years whereas share of solar power plants are still very low. Since Türkiye is an advanced developing country, there is an increasing demand for electricity which is fully expected to continue in the foreseeable future (Figure below).

The trend in Türkiye to date and given historically slow development of alternative energy resources is to build an increasing number of thermal power plants in the future to satisfy the annual growth in energy consumption demand. Türkiye as an advanced developing nation has looked at dealing with

[24] https://cdm.unfccc.int/filestorage/2/P/7/2P7FS6ZQAR84LG3NMKYUH50WI9ODBC/EB81_repan24_AMS-I.D_ver18.pdf?t=UzZ8cmQyN2VxfDCfzA4DZyFHKZKvvVRDNzJx, section 5.2, paragraph 19.

energy security by developing and constructing high capacity coal and natural gas power plants[25]. The development of thermal power plants has been also encouraged by the large natural resource availability in Türkiye, especially the abundance of economically accessible lignite[26].

In the absence of the proposed project activity, the same amount of electricity is required to be supplied via either the current power plants or by increasing the number of thermal power plants thus increasing GHG emissions.

Most relevant national and/or sectoral policies, regulations and circumstances taken into account

- Regulation on Unlicensed Electricity Generation In The Electricity Market[27]
- Regulation on Electricity Market Connection And System Usage[28]
- Regulation on Environmental Impact Assessment[29]
- Regulation on Electricity Grid[30]

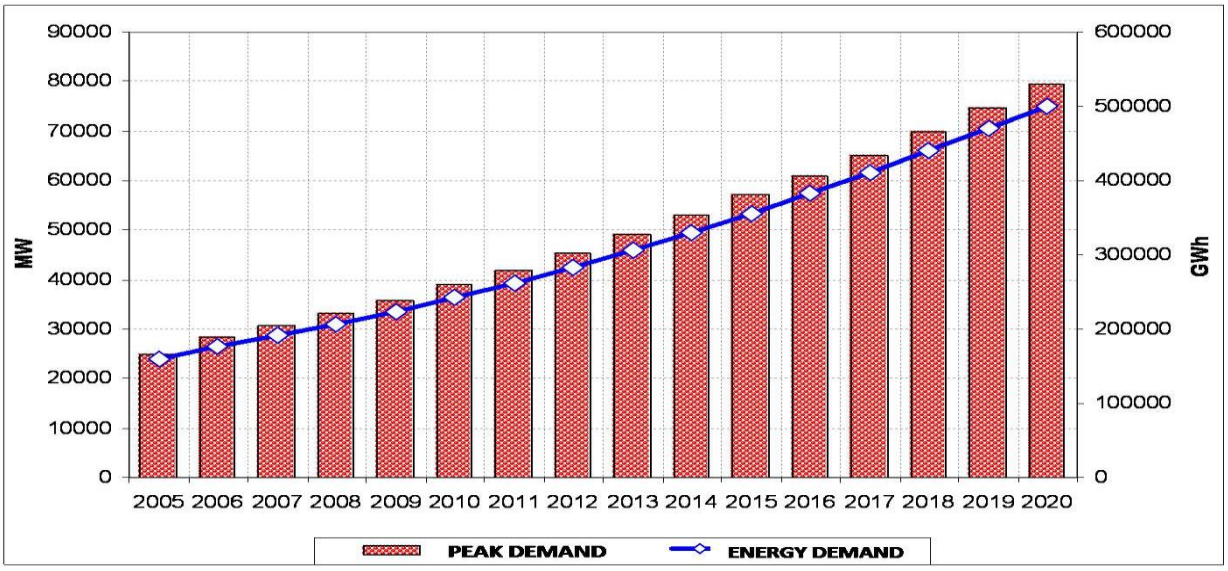


Figure 6. Peak Load and consumption projection for Turkish electricity system between 2005-2020[31]

The project is estimated to reduce CO_2 emissions by 18,166 tonnes, annually.

B.5. Demonstration of additionality

Some related laws and regulations about licenced renewable energy power plants (solar) are:

[25] https://www.teias.gov.tr/turkiye-elektrik-uretim-iletim-istatistikleri
[26] https://www.iea.org/reports/turkey-2021
[27] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=31502&MevzuatTur=7&MevzuatTertip=5
[28] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=19357&MevzuatTur=7&MevzuatTertip=5
[29] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=39647&MevzuatTur=7&MevzuatTertip=5
[30] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=19722&MevzuatTur=7&MevzuatTertip=5
[31] http://www.teias.gov.tr/apkuretimplani/veriler.htm

- Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy[32], No. 5346, ratified on 10/05/2005 by Grand National Assembly of Türkiye, enacted on 18/05/2005 by President of Türkiye
- Electricity Market Law[33], No. 6446, ratified on 14/03/2013 by Grand National Assembly of Türkiye, enacted on 30/03/2013 by President of Türkiye
- Environment Law[34], No. 2872, ratified on 09/08/1983 by Grand National Assembly of Türkiye, enacted on 11/08/1983 by President of Türkiye
- Forest Law[35], No: 6831, ratified on 31/08/1956 by Grand National Assembly of Türkiye, enacted on 08/09/1956 by President of Türkiye
- EIA Regulation (Ratified by President of Türkiye, enacted 25/11/2014 with Official Gazette Issue: 29186 by Official Gazette of Türkiye, authored by Ministry of Environment, Urbanization and Climate Change)
- Energy Efficiency Law[36] (Ratified by President of Türkiye, enacted 02/05/2007 with Official Gazette Issue: 26510 by Official Gazette of Türkiye, authored by Energy Market Regulatory Authority (EMRA))

The GCC[37] applies the following approach for demonstrating additionality, consisting of two components:
(a) A Legal Requirement Test; and
(b) An Additionality Test either based on a Positive List test or a projects-specific additionality test.

(a) The project is not enforced by law. 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; “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.”

(b) An Additionality Test based on a Positive List test is provided as follows. According to the CDM tool “Positive lists of Technologies”, version 03.0, section 5.2.3, solar photovoltaic technologies are included in the positive list that confer automatic additionality to CDM project activities.

As per para 11 of TOOL 21 Demonstration of additionality of small-scale project activities, v13.1, “Documentation of barriers, as per paragraph 10 above, is not required for the positive list of

[32] Republic of Türkiye, Law no 5346, 10/05/2005
https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5346&MevzuatTur=1&MevzuatTertip=5
[33] Republic of Türkiye, Law no 6446, 14/03/2013
https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6446&MevzuatTur=1&MevzuatTertip=5
[34] Republic of Türkiye, Law no 2872, 11/08/1983
https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=2872&MevzuatTur=1&MevzuatTertip=5
[35] Republic of Türkiye, Law no 6831, 31/08/1956
https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6831&MevzuatTur=1&MevzuatTertip=3
[36] Republic of Türkiye, Law no 5627, 02/05/2007
https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5627&MevzuatTur=1&MevzuatTertip=5
[37] http://globalcarboncouncil.com/wp-content/uploads/2021/10/Project-Standard-v3.1.pdf

technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds (e.g. installed capacity up to 15 MW). For the positive list of technologies, the project proponent shall refer to methodological tool "TOOL32: Positive lists of technologies". Demonstration of additionality is not required, since this project is included in the TOOL32: Positive lists of technologies version 3, paragraph 17, small-scale as solar photovoltaic technologies. Submission date of the project is on 10/02/2022 which is before 11/03/2022. Hence, CDM Tool 32: Positive lists of technologies, version 3 can be applied, as long as request for registration can be submitted before 5th Nov. 2022[38] as per GCC Clarification No. 02, v1.0.

B.6. Estimation of emission reductions

B.6.1. Explanation of methodological choices

Emission factor will remain same over the crediting period.

Baseline Emissions

Baseline emission is calculated according to the formula:

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

Where:

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{grid,y}$ = Combined margin CO2 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" (t CO2/MWh)

Emission factor calculated according to selected methodology and according to the Ministry of Energy and Natural Resources document named as Türkiye's National Electricity Network Emission Factor Factsheet (20/09/2022), OM is calculated as 0.7424 tCO_2/MWh whereas BM is 0.3680 tCO2/MWh)[39] Therefore, CM is calculated as 0.6488 whereas 0.75 and 0.25 weightage factor given to OM and BM, respectively.

Considering this project is a solar power plant project, combined margin is calculated as per Tool 07 : "Tool to calculate the emission factor for an electricity system", Equation (16), v07.0, as follows:

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

Wind and solar power generation project activities: $w_{OM} = 0.75$ and $w_{BM} = 0.25$ for the first crediting period and for subsequent crediting periods.[40] Hence:

$EF_{grid,CM,y} = EF_{grid,OM,y} \times 0.75 + EF_{grid,BM,y} \times 0.25$

[38] https://www.globalcarboncouncil.com/wp-content/uploads/2022/03/Clarification-No.-02.pdf

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

[40] Para. 86(a) : https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf

As given by the Ministry of Energy and Natural Resources, built margin is 0.7424 and operating margin is 0.3680.
$EF_{grid,CM,y}$ = 0.7424 x 0.75 + 0.3680 x 0.25 = 0.6488 tCO_2/MWh

Project Emissions

Since the project is classified as a renewable energy project, parameter $PE_{FF,y}$ is neglected. Therefore,
$PE_{FF,y} = 0$

Leakage Emissions

No leakage emissions are considered. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, transport). These emissions sources are neglected.
Also, the energy generating equipment is not transferred from or to another activity. Therefore, leakage is considered as "0".
$LE_y = 0$

Total Emission Reduction

As a result, Total Emission Reduction is:
$ER_y = BE_y$

B.6.2. Data and parameters fixed ex ante

Data / Parameter Table 1.

Data / Parameter:	**$EF_{grid,y}$**
Methodology reference	AMS-I.D.: Grid connected renewable electricity generation, v18.0
Data unit	tCO_2/MWh
Description	Combined margin CO2 emission factor for the project electricity system in year
Measured/calculated /default	Calculated. AMS-I.D.: Grid connected renewable electricity generation, v18.0, Section 5.5 Para 22
Data source	AMS-I.D.: Grid connected renewable electricity generation, v18.0 Tool 07 Tool to calculate the emission factor for an electricity system Ministry of Energy and Natural Resources, OM & BM values[41]
Value(s) of monitored parameter	0.6488 tCO_2/MWh

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

Measurement/ Monitoring equipment (if applicable)	The coefficients are taken as 0.25 and 0.75 for BM and OM, respectively according to the methodology.
Measuring/reading/ recording frequency (if applicable)	Once in each crediting period
Calculation method (if applicable)	CM = (BM x 0.25) + (OM x 0.75) As given by the Ministry of Energy and Natural Resources, built margin is 0.3680 and operating margin is 0.7424. (0.3680 x 0.25) + (0.7424 x 0.75) = 0.6488 tCO_2/MWh
QA/QC procedures	-
Purpose of data	SDG 7 Energy / 7.2 “By 2030, increase substantially the share of renewable energy in the global energy mix by the utilization of solar as a renewable energy source. To calculate baseline emission
Additional comments	AMS-I.D.: Grid connected renewable electricity generation --- Version 18.0

B.6.3. Ex-ante calculation of emission reductions

Emission Reduction

Ex-ante emission reductions (ER_y) are calculated as follows (Equation 9 of AMS-I.D. v18.0):

$ER_y = BE_y – PE_y – LE_y$

Where:

ER_y = Emission reductions in year y (tCO_2)

BE_y = Baseline emissions in year y (tCO_2)

PE_y = Project Emissions in year y (tCO_2)

LE_y = Leakage emissions in year y (tCO_2)

Baseline Emissions

Baseline emission is calculated according to the formula:

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

Where:

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{grid,y}$ = Combined margin CO2 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” (t CO2/MWh)

Emission factor calculated according to selected methodology and according to the Ministry of Energy and Natural Resources document named as Türkiye's National Electricity Network Emission Factor Factsheet (20/09/2022), OM is calculated as 0.7424 tCO_2/MWh whereas BM is 0.3680 tCO2/MWh)[42] Therefore, CM is calculated as 0.6488 whereas 0.75 and 0.25 weightage factor given to OM and BM, respectively.

Considering this project is a solar power plant project, combined margin is calculated as per Tool 07 : "Tool to calculate the emission factor for an electricity system", Equation (16), v07.0, as follows:

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

Wind and solar power generation project activities: $w_{OM} = 0.75$ and $w_{BM} = 0.25$ for the first crediting period and for subsequent crediting periods.[43] Hence:

$EF_{grid,CM,y} = EF_{grid,OM,y} \times 0.75 + EF_{grid,BM,y} \times 0.25$

As given by the Ministry of Energy and Natural Resources, built margin is 0.7424 and operating margin is 0.3680.

$EF_{grid,CM,y} = 0.7424 \times 0.75 + 0.3680 \times 0.25 = 0.6488\ tCO_2/MWh$

$BE_y = 28,000\ MWh \times 0.6488\ tCO_2e/MWh = 18,166\ tCO_2e$

Project Emissions

According to the applied methodology AMS-I.D. Ver 18.0 for most renewable energy power generation project activities, emissions due to the use of fossil fuels for the backup generator can be neglected." Since the project is classified as a renewable energy project, parameter $PE_{FF,y}$ is neglected[44].

Therefore,

$PE_y = 0$

Leakage Emissions

No leakage emissions are considered. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, transport). These emissions sources are neglected.

Also, the energy generating equipment is not transferred from or to another activity[45]. Therefore, leakage is considered as "0".

Total Emission Reduction

As a result, Total Emission Reduction is:

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

43 Para. 86(a) : https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf

44 AMS I.D ver 18.0 page 12, section 5.6, paragraph 39.

45 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf

ERy = BEy
So, final emission reduction value is 18,166 **tCO_2**/year, and 181,660 **tCO_2** for the whole crediting period of 10 years.

B.6.4. Summary of ex ante estimates of emission reductions

Year	Baseline emissions (tCO_2e)	Project emissions (tCO_2e)	Leakage (tCO_2e)	Emission reductions (tCO_2e)
2021 (27/10/2021 - 31/12/2021)	3,285	0	0	3,285
2022	18,166	0	0	18,166
2023	18,166	0	0	18,166
2024	18,166	0	0	18,166
2025	18,166	0	0	18,166
2026	18,166	0	0	18,166
2027	18,166	0	0	18,166
2028	18,166	0	0	18,166
2029	18,166	0	0	18,166
2030	18,166	0	0	18,166
2031 (01/01/2031- 26/10/2031)	14,881	0	0	14,881
Total	181,660	0	0	181,660
Total number of crediting years	10 years			
Annual average over the crediting period	18,166	0	0	18,166

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

Data / Parameter Table 2.

Data / Parameter:	$EG_{PJ,facility,y}$
Methodology reference	AMS-I.D.: Grid connected renewable electricity generation, v18.0
Data unit	MWh

<table>
<tr><td>Description</td><td>Net Electricity generated and delivered to the grid by the power plant in year y</td></tr>
<tr><td>Measured/calculated /default</td><td>Measured</td></tr>
<tr><td>Source of data</td><td>EPIAS[46] screenshots (main source) and invoices raised by the PO (cross-check)</td></tr>
<tr><td>Value(s) of monitored parameter</td><td>Estimated annual generation forming the basis for emission reduction calculation is 28,000 MWh.</td></tr>
<tr><td>Measurement/ Monitoring equipment</td><td>
<table>
<tr><td colspan="4"></td></tr>
<tr><td>Type of meter</td><td colspan="3">Gyr E550 - LUN6</td></tr>
<tr><td>Location of meter</td><td colspan="3"></td></tr>
<tr><td>Accuracy of meter</td><td colspan="3">0.5S</td></tr>
<tr><td rowspan="3">Serial number of meter</td><td></td><td>Main</td><td>Spare</td></tr>
<tr><td>Gitaş-1</td><td>40304881</td><td>75002204</td></tr>
<tr><td>Metges Burdur</td><td>69206308</td><td>80281407</td></tr>
<tr><td>Calibration frequency</td><td colspan="3">10 years</td></tr>
<tr><td>Date of Calibration/ validity</td><td colspan="3">Gitaş-1 07/11/2020
Metges Burdur 09/11/2020</td></tr>
<tr><td>Reference No. of Calibration Certificate</td><td colspan="3"></td></tr>
<tr><td>Calibration Status</td><td colspan="3">Calibrated</td></tr>
</table>
</td></tr>
<tr><td>Measuring/reading/ recording frequency</td><td>Monthly</td></tr>
<tr><td>Calculation method (if applicable)</td><td>Generation is recorded via remote reading system. EPIAS screenshots are used as the main source and invoices raised by the PO are used for cross-check purpose.
Generation data is recorded by two metering devices continuously. These records provide the data for the monthly invoicing to the local distribution companies. Generation is recorded via remote reading system. The quantity of electricity supplied by the project plant to the grid (UEVM) and the quantity of electricity delivered to the project plant/unit from the grid (UECM) are measured. Net generation is calculated via subtracting energy delivered by the project activity to the grid for internal consumption from electricity fed to the grid.
$EG_{facility,y}$ = UEVM – UECM
Net amount of electricity supplied by the project plant to the grid = (quantity of electricity supplied by the project plant to the grid) - (quantity of electricity delivered to the project plant/unit from the grid)</td></tr>
<tr><td>QA/QC procedures:</td><td>Calibration of the meters are valid for 10 years based on related regulation[47]. Maintenance and calibration of the metering devices are</td></tr>
</table>

[46] See Section B.7.4.

[47] https://www.mevzuat.gov.tr/anasayfa/MevzuatFihristDetayIframe?MevzuatTur=7&MevzuatNo=6381&MevzuatTertip=5

	made by the distribution company. If there is a significant difference between the readings of two devices, maintenance and tests of the metering devices and the associated equipment are done before waiting for the periodical maintenance. The meters should comply with EPDK regulations which define the accuracy class of the meters as depending on the capacity of the circuit as given in document in link (https://www.epdk.gov.tr/Detay/Icerik/3-0-0-128/tebligler). This project currently uses 0.5S class meters.
Purpose of data	To calculate the baseline emission value -To assess the contribution SDG 7 Energy / 7.2 "By 2030, increase substantially the share of renewable energy in the global energy mix by the utilization of solar as a renewable energy source. / 7.2.1 Renewable energy share in the total final energy consumption -To assess contribution to E.1. parameter Replacing fossil fuels with renewable sources of energy
Additional comments	AMS-I.D.: Grid connected renewable electricity generation --- Version 18.0

Data / Parameter Table 3.

Data / Parameter:	**CO_2 Emissions**
Methodology reference	AMS-I.D.: Grid connected renewable electricity generation v18.0 GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	tCO_2e
Description	Reduction of CO_2 emissions due to implementation of project activity that would otherwise be emitted by thermal power plants
Measured/calculated /default	Calculated based on net electricity generation. $CM_{EF,grid}$ is used to calculate.
Source of data	Electricity generated by MASFEN-3 Solar Bundle and $CM_{EF,grid}$
Value(s) of monitored parameter	18,166 tonnes of CO_2 annually
Measurement/ Monitoring equipment	-
Measuring/reading/ recording frequency	Electricity generation data is continuously read from the electricity meters and they are recorded monthly. CO2 emission reductions are calculated based on net electricity generation.
Calculation method (if applicable)	The net electricity supplied by the Project will be continuously measured and recorded by the corresponding local distribution companies; and will be kept by the Project Owner $BE_y = EG_{PJ,y} \times EF_{grid,y}$ Ex-ante emission reductions (ER_y) are calculated as given in Section B.6.4. and as follows (Equation 9 of AMS-I.D. v18.0): $ER_y = BE_y - PE_y - LE_y$

QA/QC procedures:	-
Purpose of data	Purpose is to calculate the CO_2 emission amounts prevented due to project activity. Continuous measuring for electricity generation will be done by using electricity meters. Therefore, emission reduction calculations will be done according to the generation values.
Additional comments	-

Data / Parameter Table 4.

Data / Parameter:	**Long-term jobs (> 1 year) created**
Methodology reference	GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	Number of recruited staff during operation
Description	Number of employments created due to the project activity during project operation.
Measured/calculated /default	Measured
Source of data	Security and maintenance contracts / social security records
Value(s) of monitored parameter	Project creates employment opportunity. The project creates around 3 job opportunities.
Measurement/ Monitoring equipment	The creation of long term jobs can be proven by official employment records.
Measuring/reading/ recording frequency	Annually
Calculation method (if applicable)	Not Applicable
QA/QC procedures:	Security and maintenance contracts / social security records will be checked
Purpose of data	To assess the contribution to SDG 8 Economic Growth - 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”. To assess the contribution to S+ parameter Long-term jobs (> 1 year) created
Additional comments	-

Data / Parameter Table 5.

Data / Parameter:	**New short-term jobs (< 1 year) created**
Methodology reference	GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	Number of recruited staff during construction and short-term operation
Description	Creating new employment opportunities
Measured/calculated /default	Measured
Source of data	Employment records/subcontractor agreement/invoices
Value(s) of monitored parameter	Project creates short term employment opportunity.
Measurement/ Monitoring equipment	The creation of short term jobs can be proven by official employment records/subcontractor agreement/invoices
Measuring/reading/ recording frequency	Annually
Calculation method (if applicable)	Employment records will be checked
QA/QC procedures:	-
Purpose of data	To assess the contribution to SDG 8 Economic Growth - 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”. To assess the contribution to S+ parameter New short-term jobs (< 1 year) created
Additional comments	-

Data / Parameter Table 6.

Data / Parameter:	**Solid Waste Pollution from E-wastes**
Methodology reference	GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	Count of the wastes. Mass/volume units, if applicable.
Description	Solid wastes from e-wastes might be generated due to project activity.
Measured/calculated /default	Measured
Source of data	Records or invoices from the site
Value(s) of monitored parameter	No solid waste pollution due to e-wastes in the baseline.

Measurement/ Monitoring equipment	Quantity of the e-waste generated on project sites will be monitored and recorded. Disposal records will be kept.
Measuring/reading/ recording frequency	Annually
Calculation method (if applicable)	Any e-waste will be handled according to the national regulations: Regulation on Waste Management[48], Regulation on Electrical and Electronic Waste Control[49].
QA/QC procedures:	Quantity of the e-waste generation on project sites will be monitored and recorded. Disposal records will be kept.
Purpose of data	To comply with GCC Environment-and-Social-Safeguards-Standard-v2
Additional comments	No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes. No e-waste or end-of-life product waste has been generated until now.

Data / Parameter Table 7.

Data / Parameter:	**Solid Waste Pollution from from end of life products/equipment**
Methodology reference	GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	Count of the wastes. Mass/volume units, if applicable.
Description	Solid wastes from end of life equipment might be generated due to project activity.
Measured/calculated /default	Measured
Source of data	Records or invoices from the site
Value(s) of monitored parameter	No solid waste pollution due to end of life equipment in the baseline.
Measurement/ Monitoring equipment	Quantity of the e-waste generated on project sites will be monitored and recorded. Disposal records will be kept.
Measuring/reading/ recording frequency	Annually
Calculation method (if applicable)	Any end of life equipment wastes will be handled according to the national regulations: Regulation on Waste Management[50], Regulation on Electrical and Electronic Waste Control[51]. However, there are no legislations and regulations for recycling broken solar panels. Therefore, manufacturer firms generally take/replace the broken panels.

[48] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5
[49] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16159&MevzuatTur=7&MevzuatTertip=5
[50] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5
[51] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16159&MevzuatTur=7&MevzuatTertip=5

QA/QC procedures:	Quantity of the end of life products/equipment generation on project sites will be monitored and recorded. Disposal records will be kept.
Purpose of data	To comply with GCC Environment-and-Social-Safeguards-Standard-v2
Additional comments	No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes. No e-waste or end-of-life product waste has been generated until now.

Data / Parameter Table 8.

Data / Parameter:	**Solid waste Pollution from Hazardous wastes (and waste oil)**
Methodology reference	GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	Mass/volume units, if applicable.
Description	Solid waste from hazardous wastes might be generated due to project activity.
Measured/calculated /default	Measured
Source of data	Records or invoices from the site
Value(s) of monitored parameter	No hazardous waste pollution due to the project activity in the baseline.
Measurement/ Monitoring equipment	Quantity of the hazardous waste (and waste oil) generated on project sites will be monitored and recorded if it is generated at all. Disposal records will be kept if shared with the PO. Only source of waste oil is from transformer which is transformer oil. However, the project owner does not apply any handling to the transformers as the transformer company does the maintenance of the transformers and the waste oil if generated. The waste oil is handled by their employees and disposal is their responsibility only. No waste oil has been generated at the site yet, at the registration stage.
Measuring/reading/ recording frequency	Annually
Calculation method (if applicable)	Any hazardous wastes will be handled according to the national regulations: Regulation on Waste Management[52]
QA/QC procedures:	Quantity of the hazardous wastes generated on project sites will be monitored and recorded. Disposal records will be kept.
Purpose of data	To comply with GCC Environment-and-Social-Safeguards-Standard-v2
Additional comments	No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes.

[52] Regulation on Waste Management: https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5

Data / Parameter Table 9.

Data / Parameter:	**Reducing / increasing accidents**
Methodology reference	GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	Number of trainings
Description	HSE Trainings provided to the employees to reduce risk of accidents at project sites. HSE related training will be provided to personnel. The HSE related training records will be stored during the operation period. In addition, number of accidents (if they occur) will be recorded and monitored for each site.
Measured/calculated /default	Measured
Source of data	HSE trainings records
Value(s) of monitored parameter	No trainings given or no accidents in the baseline.
Measurement/ Monitoring equipment	HSE trainings records will be kept by the project owner.
Measuring/reading/ recording frequency	Annually
Calculation method (if applicable)	N/A
QA/QC procedures:	HSE trainings records will be maintained.
Purpose of data	To comply with GCC Environment-and-Social-Safeguards-Standard-v2
Additional comments	No harm is expected from this parameter throughout the project lifetime.

Data / Parameter Table 10.

Data / Parameter:	**Women's empowerment**
Methodology reference	GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	Number of recruited women during operation
Description	The project owner aims to increase number of women working in energy sector. The women seeking jobs at the parent company will be prioritized. Project Owner ensures that there is no discrimination based on gender, racism, religion etc. during the recruitment process.
Measured/calculated /default	Measured
Source of data	Official social security records
Value(s) of monitored parameter	No prioritization of women in the baseline.

Measurement/ Monitoring equipment	Official social security records
Measuring/reading/ recording frequency	At each verification
Calculation method (if applicable)	N/A
QA/QC procedures:	Social security records will be maintained.
Purpose of data	To comply with GCC Environment-and-Social-Safeguards-Standard-v2
Additional comments	No harm is expected from this parameter throughout the project lifetime as the parameter is positive in nature.

Data / Parameter Table 11.

Data / Parameter:	**Solid Waste Pollution from Solid waste Pollution from Batteries**
Methodology reference	GCC Environment-and-Social-Safeguards-Standard-v2
Data unit	Count of the wastes. Mass/volume units, if applicable.
Description	No solid waste pollution caused due to batteries from the project activity. Currenty, the project does not use any batteries in its operations. However, this parameter is included in the monitoring plan in case the project starts using batteries.
Measured/calculated /default	Measured
Source of data	Records or invoices from the site
Value(s) of monitored parameter	No solid waste pollution due to batteries in the baseline.
Measurement/ Monitoring equipment	Quantity of the battery waste generated on project sites will be monitored and recorded. Disposal records will be kept.
Measuring/reading/ recording frequency	Annually
Calculation method (if applicable)	Any battery waste will be handled according to the national regulations: Regulation on Waste Management[53], Regulation on Electrical and Electronic Waste Control[54].
QA/QC procedures:	Quantity of the e-waste generation on project sites will be monitored and recorded. Disposal records will be kept.
Purpose of data	To comply with GCC Environment-and-Social-Safeguards-Standard-v2
Additional comments	No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the

[53] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5
[54] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16159&MevzuatTur=7&MevzuatTertip=5

	wastes. No e-waste or end-of-life product waste has been generated until now.

B.7.2. Monitoring-program of risk management actions

There is no parameter evaluated as “Harmful” in Section E.

B.7.3. Sampling plan

N/A

B.7.4. Other elements of the monitoring plan

Monitoring is a key procedure to verify the real and measurable emission reductions from the proposed project. To guarantee the proposed project’s real, measurable and long-term GHG emission reductions, the monitoring plan is established.

Net electricity generation is measured and recorded via meters sealed by the corresponding local distribution companies for billing purposes. Therefore, no new additional protocol is needed for monitoring emission reduction.

Generation data collected during crediting period is submitted to GTE who is responsible for calculating the emission reduction subject to verification: Generation data is used to prepare monitoring reports which are used to determine the vintage from the project activity.

Verification Team Members is expected to include the following staff :

Accounting Manager: Responsible for keeping data about generation and consumption.
GTE Karbon Sürdürülebilir Enerji Eğitim Danişmanlik Ve Tic. A.Ş.: Responsible for emission reduction calculations, preparing monitoring report and periodical verification process.
MEDAŞ : Meram Elektrik Dağıtım A.Ş. (Local distribution company) Physical connection and management of electricity meters is under MEDAŞ’s responsibility. Connection agreement and system use agreement is done between the project owner and this company. (Gitaş-1)
AKEDAŞ : Akdeniz Elektrik Dağıtım A.Ş. (Local distribution company) Physical connection and management of electricity meters is under AKEDAŞ’s responsibility. Connection agreement and system use agreement is done between the project owner and this company. (Metges Burdur)
TEİAŞ : Turkish Electricity Transmission Corporation
EPİAŞ : Managing and operating energy markets (applicable for licenced projects)

Installation of meter and data monitoring are carried out according to the national regulations and regulations by TEIAS. Two metering devices (one of them used as spare) are used for monitoring the electricity generated by the power plant. Readings are done using main metering devices and spare metering device is used for comparison only. Data from metering devices is recorded by local distribution companies monthly (through remote reading).

Two calibrated meters backup each other. Maintenance and calibration of the metering devices are made by the corresponding local distribution companies. If there is a significant difference between

the readings of two devices, maintenance and tests of the metering devices and the associated equipment are done before waiting for the periodical maintenance. The meters should comply with EPDK regulations which define the accuracy class of the meters as 0.2 or 0.5 depending on the capacity of the circuit as given in document in link (http://www.epdk.gov.tr/web/elektrik-piyasasi-dairesi/44). EPIAS records will be taken in consideration while calculating net electricity generation by the plant. UEVM (Electricity fed to the grid) and UECM (Electricity consumed from the grid) data given in the EPIAS records are used for emission reduction calculations. Invoices raised by the PO will be used to cross-check.

All data is kept for at least two years after the crediting period for QA/QC purposes or 2 years after the last issuance, whichever is later.

Calibration of the metering devices is made by the corresponding local distribution companies and sealed before the commissioning of the power plant. The meters are calibrated by the corresponding local distribution companies when there is an inconsistency between two devices. Calibrations are done according to the Measuring Instruments Directive.[55]

Table 5. Technical information on electricity meters

	Main Meter				Spare Meter			
	Brand	**Type**	**Class**	**Serial Nr.**	**Brand**	**Type**	**Class**	**Serial Nr.**
Gitaş-1	Landis	Gyr E550	0.5S	40304881	Makel	C520.AMT2556	0.5S	75002204
Metges Burdur	Luna	LUN6	0.5S	69206308	Makel	C520.AMT2556	0.5S	80281407

Table 6. Calibration information on electricity meters

	Serial Nr.	**First Index, Sealing and Calibration Date**
Gitaş-1	40304881	07/11/2020
	75002204	07/11/2020
Metges Burdur	69206308	09/11/2020
	80281407	09/11/2020

The meters which are presented in the Table above makes the base for the electricity selling and emission reduction calculations.

The project is connected to the grid at these following connection points:
Konya Gitaş-1 : Karapınar TM (transformation center) 31.5/154 kV
Metges Burdur : Burdur TM (transformation center) 31.5/154 kV

55 https://www.mevzuat.gov.tr/anasayfa/MevzuatFihristDetayIframe?MevzuatTur=7&MevzuatNo=6381&MevzuatTertip=5

Section C. Start date, crediting period type and duration

C.1. Start date of the Project Activity

Start date of project activity is 27/10/2021, after the first provisional acceptance.

C.2. Expected operational lifetime of the Project Activity

Expected operational lifetime of the project activity is considered as 25 years, according to the technical sheets of the solar panels.

C.3. Crediting period of the Project Activity

C.3.1. Fixed crediting period

The crediting period is fixed as 10 years.

C.3.2. Start date of the crediting period

Start date of the crediting period is 27/10/2021, after the first provisional acceptance.

C.3.3. Duration of the crediting period

Crediting period is between 27/10/2021 and 26/10/2031, fixed as 10 years.

Section D. Environmental impacts

D.1. Analysis of environmental impacts

Please see section E.

Air

Since it is a solar energy power plant, the project is expected to have a positive impact on climate change by eliminating fossil fuels. Hence, the project prevents CO_2 emissions. No other emissions are expected due to project activity.

Land

All the wastes generated on the project sites are handled, stored and disposed according to the national law and regulations. If any e-wastes, batteries, end-of-life wastes, damaged solar panel

wastes are handled according to the Regulation on Electrical and Electronic Waste Control[56] and Regulation on Battery and Accumulator Wastes[57]. If any waste oil is generated on site, it is handles according to the Regulation on Waste Oils[58]. Domestic solid wastes generated on the project sites are handled according to the national law and regulations such as Regulation on Waste Management[59]. No soil pollution is expected due to project activity. Hazardous wastes are not expected to be generated on-site. In case of any generation, it would be in very minimal quantity or not at all. The project areas of both projects were barren land before the implementation of the project. Provincial Directorate of Agriculture and Forestry of Burdur Province issued a "non-agricultural area" document.

Water

The project does not consume water or change reliability or accessibility of water supply. No significant wastewater is generated on-site, if generated, it is handled according to the national regulations. The project does not cause any pollution to surface waters, groundwater and any other water bodies. Water is not consumed in cleaning of the panels, since panels are not located at a place that would cause dust pollution on them.

Natural Resources

The project does not have any expected effects on the natural or pre-existing pattern of water courses, groundwater or the watershed. No other natural resources are expected to be affected by the project activity. The project sites are located on arid, infertile, uncultivated lands, hence, any plants or forests will not be affected by the project activity. The project site does not include any pasture lands, all mechanical equipment are protected by fences, hence, if any animal is present near the project area, they will not be affected since they can not enter the plant site through the fences.

D.2. Environmental impact assessment

Gitaş-1 received their environmental impact assessment approval on 22/11/2016. And, Metges Burdur received environmental impact assessment "not required" approval on 17/04/2018, by the EIA decisions numbered respectively E.6983 and E.32739 of Republic of Türkiye Ministry of Environment, Urbanization and Climate Change. So, an official environmental impact assessment was not carried out, this section is not applicable.

[56] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16159&MevzuatTur=7&MevzuatTertip=5
[57] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=7118&MevzuatTur=7&MevzuatTertip=5
[58] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=34051&MevzuatTur=7&MevzuatTertip=5
[59] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5

Section E. Environmental and social safeguards

E.1. Environmental safeguards

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Impact of Project Activity on		**Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards**									**Project Owner's 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**	
				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**
Environmental impacts on the identified categories[60] 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****)*
Environmental Safeguards												
Environment *- Air*	*SO_x emissions*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	NO_x emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	CO_2 emissions	The project reduces CO_2 emissions	N/A	N/A	Harmless	-	N/A	N/A	N/A	Continuous measuring for	The electricity generation	+1

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

		since it reduces the amount of fossil fuel used. In case of "no project", stated amount of electricity would be generated from fossil fuels and cause air pollution.			(positive in nature)					electricity generation will be done by using electricity meters. Recording will be done monthly. Therefore, emission reduction calculations will be done according to the generation values.	will be monitored, and emission reduction will be calculated accordingly. Overall, the project activity is expected to reduce CO2 emission throughout the crediting period.	
	CO emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Suspended particulate matter (SPM) emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Fly ash emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Non-Methane Volatile Organic Compounds (NMVOCs)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Odor emissions	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Noise Pollution	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
Environment *- Land*	*Solid waste Pollution from Plastics*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Solid waste Pollution from Hazardous wastes	Hazardous wastes might be generated due to operation of the transformer for the solar power plant. However, solar panels	Any hazardous wastes will be handled according to the national regulations: Regulation on Waste Manageme	N/A	Harmless	-	N/A	N/A	N/A	Quantity of the waste oil or solid hazardous wastes generated on project sites will be monitored annually and	No harm is expected from this parameter throughout the project lifetime since national laws and regulations	+1

		do not require or generate waste oil in their operation. Therefore, only source can be transformer oil, which is handled by the transformer company and not the project owner.	nt[61] because Regulation on the Control of Hazardous Wastes is no longer in action.							recorded. Disposal records will be kept if shared with the PO. Only source of waste oil is from transformer which is transformer oil. However, the project owner does not apply any handling to the transformers as the transformer company does the maintenance of the transformers and the waste oil if generated. The waste oil is handled by their employees and disposal is their responsibility only. No waste oil has been generated at the site yet, at the registration stage.	will be enforced in handling the wastes.	
	Solid waste Pollution from Bio-medical wastes	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	

[61] Regulation on Waste Management: https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=20644&MevzuatTur=7&MevzuatTertip=5

	Solid waste Pollution from E-wastes	E-waste might be generated due to operation of the solar power plant in terms of damaged electronic equipment, computers etc.	In case any e-waste is generated, they will be handled according to national laws and regulations such as Regulation on Electrical and Electronic Waste Control[62],	N/A	Harmless	-	N/A	N/A	N/A	Quantity of the e-waste generated on project sites will be monitored annually and recorded. Disposal records will be kept. Any e-waste which requires to be disposed will be taken from the power plant by a licenced company or, they will be taken by the plant's staff to the correct disposal center. However, no e-waste has been generated yet, at the registration stage.	No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes.	+1
	Solid waste Pollution from Batteries	The project does not use any batteries. However, in case any batteries will be used in the future, this parameter is to be monitored.	In case any battery waste is generated, they will be handled according to national laws and regulations such as Regulation on Waste Management.	N/A	Harmless	N/A	N/A	N/A	N/A	Quantity of the waste from batteries generated on project sites will be monitored annually and recorded. Disposal records will be kept. Any battery which requires to be disposed	No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes.	+1

[62] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=16159&MevzuatTur=7&MevzuatTertip=5

										will be taken from the power plant by a licenced company or, they will be taken by the plant's staff to the correct disposal center.		
	Solid waste Pollution from end of life products/ equipment	Solid waste Pollution from end of life equipment might be generated due to operation of the solar power plant in terms of damaged electronic equipment, computers, broken solar panels etc. to be discarded.	In case any e-waste is generated, they will be handled according to national laws and regulations such as Regulation on Waste Management. However, there is no legal legislation and regulation for the recycling of solar panels in Türkiye.	N/A	Harmless	-	N/A	N/A	N/A	Quantity of the waste from end of life equipmeent generated on project sites will be monitored annually and recorded. Disposal records will be kept. Any end-of-life products which requires to be disposed will be taken from the power plant by a licenced company or, they will be taken by the plant's staff to the correct disposal center. However, no end-of-life equipment waste has been generated yet, at the registration stage. Since there is no legislations	No harm is expected from this parameter throughout the project lifetime since national laws and regulations will be enforced in handling the wastes.	+1

										or regulations, companies such solar panel manufacturer companies will be taking the broken panels.		
	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	
	Soil erosion	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Land use change	It has been determined that the project area is not in absolute agricultural land, planted agricultural land, special crop agricultural land, and irrigated agricultural land classes, but it is dry marginal agricultural land and does not disturb its agricultural integrity. The project area is classified as non-agricultural land. The project areas of both projects were barren land before the		N/A	Harmless	-	N/A	N/A	N/A	N/A	N/A	

		implementation of the project. Provincial Directorate of Agriculture and Forestry of Burdur Province issued a "non-agricultural area" document. Therefore, no monitoring is required.										
Environment *- Water*	*Reliability/ accessibility of water supply*	N/A	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	
	Water Consumption from ground and other sources	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Generation of wastewater	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Wastewater discharge without/with insufficient treatment	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	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	
Environment *– Natural Resources*	*Conserving mineral resources*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Protecting/ enhancing plant life	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Protecting/ enhancing species diversity	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	

	Protecting/ enhancing forests	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Protecting/ enhancing other depletable natural resources	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Conserving energy	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Replacing fossil fuels with renewable sources of energy	The project replaces fossil fuels with renewable sources of energy since it is solar power plant.	There is no legal requirement /limit.	N/A	Harmless (positive in nature)	-	N/A	N/A	N/A	The electricity generated from solar power will be monitored throughout the crediting period.	The project provides 28,000 MWh annual clean energy to the grid. The electricity generated is green and clean, replacing grid electricity dominated by fossil fuels. For this parameter, the amount of electricity produced from the solar project will be monitored.	+1
	Replacing ODS with non-ODS refrigerants	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	

Note: If the score is: (a) zero or greater, the overall impact is neutral or positive 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:	**+6**
Project Owner's Conclusion in PSF:	The Project Owner confirms that the Project Activity will not cause any net harm to the environment.

E.2. Social Safeguards

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Impact of Project Activity on		Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards									Project Owner's 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**	
				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**
Social impacts on the identified categories[63] indicated below.	*Indicators for social impacts*	*Describe the impacts on society and stakeholders, both positive 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												
Social - *Jobs*	Long-term jobs (> 1 year) created/ lost	The project creates long term job opportunities.	All employments are done according to the national employment regulations. There is no legal requirement	N/A	Harmless (positive in nature)	-	N/A	N/A	N/A	The project creates around 3 long-term job opportunities due to its operations. The project creates direct job	The project creates around 3 long-term job opportunities due to its operations.	+1

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

			/limit for this parameter.							opportunities by subcontracting for operation and maintenance works and security works. Security and maintenance contracts / social security records/ Security Guard Service Invoice will be checked		
	New short-term jobs (< 1 year) created/ lost	The project creates short term job opportunities.	All employments are done according to the national employment regulations. There is no legal requirement /limit for this parameter.	N/A	Harmless (positive in nature)	-	N/A	N/A	N/A	Since the project activity is already operational the project activity has already resulted in temporary employment during its construction phase. Subcontractor agreements can be checked.	The project has created short-term job opportunities during construction phase.	+1
	Sources of income generation increased / reduced	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
Social - *Health & Safety*	*Disease prevention*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Reducing / increasing accidents	The project owner provides HSE training for employees.	According to "Regulation on the Procedures and Principles of Employee's	N/A	Harmless	-	N/A	N/A	N/A	HSE training will be provided to personnel. The HSE training	N/A	+1

			OHS Training[64]" in official gazette No. 28648 on 15/05/2013							record will be stored in by the project owner during operation period.		
	Reducing / increasing crime	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Reducing / increasing food wastage	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Reducing / increasing indoor air pollution	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Efficiency of health services	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Sanitation and waste management	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
Social - *Education*	*Job related training imparted or not*	N/A.	-	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Educational services improved or not	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Project-related knowledge dissemination effective or not	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
Social - *Welfare*	*Improving/ deteriorating working conditions*	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	

[64] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=18371&MevzuatTur=7&MevzuatTertip=5

	Community and rural welfare	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Poverty alleviation (more people above poverty level)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Improving / deteriorating wealth distribution/ generation of income and assets	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Increased or / deteriorating municipal revenues	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
	Women's empowerment	The project owner aims to increase number of women working in energy sector. The women seeking jobs at the parent company will be prioritized. Project Owner ensures that there is no discrimination based on gender, racism, religion etc. during the recruitment process.	Türkiye has ratified ILO convention 100 and 111[65] and discrimination based on gender is illegal in Türkiye.	N/A	Harmless (positive in nature)	-	N/A	N/A	N/A	The women seeking jobs at the parent company will be prioritized. The social security records of Masfen İnşaat Enerji San. Ve Tic. A.Ş. will be checked to see the number of women employees among al employees and how this number changes over the years of operational period of the project.	The project does not involve and is not complicit in any form of discrimination based on gender difference. The aim of the project owner is to empower women by increasing women in energy sector by prioritizing women.	+1

[65] https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-ankara/documents/genericdocument/wcms_645630.pdf

	Reduced / increased traffic congestion	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	
Note: If the score is: (a) zero or greater, the overall impact is neutral or positive 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.											

Section F. United Nations Sustainable Development Goals (SDG)

The project is expected to contribute 3 SDGs which are SDG 7, 8, and 13.

SDG 7 Energy: SDG Target 7.2 "By 2030, increase substantially the share of renewable energy in the global energy mix"

Related indicator: 7.2.1 Renewable energy share in the total final energy consumption

SDG 8 Economic Growth: The project creates direct and indirect employment opportunities during construction and operation phases, so it contributes to SDG Target 8.5 "By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities and equal pay for work of equal value".

Related indicator: 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities

SDG 13 Climate Change: SDG Target 13.2 "Integrate climate change measures into national policies, strategies and planning".

Related indicator: 13.2.2 Total greenhouse gas emission per year

UN-level SDGs	UN-level Target	Declared Country-level SDG	Defining Project-level SDGs					Project Owner(s)'s Conclusion	
			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?**
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* *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	*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)*
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
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
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

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
Goal 5. Achieve gender equality and empower all women and girls	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	SDG 7 Energy: SDG Target 7.2 "By 2030, increase substantially the share of renewable energy in the global energy mix" Related indicator: 7.2.1 Renewable energy share in the total final energy consumption	Yes	Increase the share of renewables in the total installed power capacity connected to the national grid.	Provide 28,000 MWh clean energy annually.	Enhance the share of installed electricity generation capacity from renewable energy sources.	The project increases the renewable energy share in Türkiye's energy production mix. It provides 28,000 MWh annual clean energy to the grid.	Calculate the share of installed capacity from renewable energy.	Gitaş-1 commissioned on 04/11/2021 and Metges Burdur commissioned on 27/10/2021. The project fully commissioned and generates electricity from a clean resource without any problem.	Yes

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	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 8.5.1 Average earning of females and male employees engaged in the project and segregated by age and persons with disabilities	Yes	Project activity supports creation of long-term job opportunities during operation of the project activity.	Project creates new employment and generates income for 3 people.	Project creates new employment and generates income to 3 people during the project lifetime.	Project creates especially local employment and generates regular income for 3 people.	The project creates job opportunities by subcontracting for operation and maintenance works and security works. Security and maintenance contracts / social security records/ Security Guard Service Invoice will be checked	Project owner created employment for 3 people- and provided income since 2021 and complies with targeted SDGs so far.	Yes
Goal 9. Build resilient infrastructure,	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

promote inclusive and sustainable industrialization and foster innovation									
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
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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
Goal 13. Take urgent action to combat climate change and its impacts	SDG 13 Climate Change: SDG Target 13.2 "Integrate climate change measures into national policies, strategies and planning". Related indicator: 13.2.2 Total greenhouse gas emission per year	Yes	Eliminates 18,166 tCO2 annually	Commission 28,000 MWh renewable energy plant.	Reduce greenhouse gas emissions by 18,166 tonnes annually.	Since the project uses solar energy, there is no GHG emissions related to the project activity. It eliminates 18,166 tCO2 annually.	Calculate avoided GHG emissions every year.	Gitaş-1 commissioned on 04/11/2021 and Metges Burdur commissioned on 27/10/2021 and goes on without any problem.Project owner operates the plant since, and complies with targeted SDGs so far.	Yes
Goal 14. Conserve and sustainably use the oceans, seas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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
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
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SUMMARY	**Targeted**	**Likely to be Achieved**
Total Number of SDGs	**3**	**3**
Certification label (Bronze, Silver, Gold, Platinum, or Diamond) for the ACCs as defined in the PSF	**Silver**	**Silver**

Section G. Local stakeholder consultation

G.1. Modalities for local stakeholder consultation

The projects received environmental impact assessment approvals by the EIA decisions numbered E.6983 and E.32739 of Republic of Türkiye Ministry of Environment, Urbanization and Climate Change. Hence, a local stakeholder consultation (LSC) meeting was not required during the project implementation. In line with GCC Standard requirement of a LSC process, LSC was done remotely due to the Covid-19 precautions in Türkiye.

LSC was conducted between 01/02/2022 to 01/04/2022 in Karapınar district in Konya Province and Merkez district in Burdur Province via an information sheet provided to the local stakeholders by the project employees in person. People with different occupations were contacted in the process.

The information sheet has the details of:

- Positive impacts on environment (E+ Label)
- Positive impacts on social (S+ Label)
- Technical and non-technical information about the project
- Environment and social impacts of the project as well as the SDG contributions

Moreover, sheets included a sustainable development form for them to fill and an evaluator information sheet with sections to write their input on positive and negative impacts of the project. Also, a grievance book were provided by the project owner in the mukhtar's office for the continuous input mechanism. The communication culture in the area is verbal, hence, comments are received mostly verbally. The filled-out sample forms are provided in Appendix 6.

G.2. Summary of comments received

Stakeholders pointed out that it is beneficial to harness solar power to generate electricity without creating air pollution on arid land and that the project benefits the national economy. Also, they commented on the employment opportunities created by the project. No negative comments were received from the stakeholders. The original forms as well as their English versions are provided in Appendix 6.

G.3. Consideration of comments received

The project owner is willing to meet stakeholders' wishes at any stage of the project activity. The comments received from the stakeholders are recorded and considered by the project owner.

It can be deduced from stakeholders' comments on the evaluation forms, that the stakeholders have positive opinions about the project. The input mechanism is continuous hence, stakeholders are able to provide their input anytime.

Section H. Approval and authorization

As per GCC requirements, if GCC Program receives the approval to issue CORSIA eligible units beyond 31 December 2020, the Project owner shall ensure that there is no double counting for Emission units generated after 31 December 2020. Hence, a written attestation, expressing the intention, from the host country's national focal point or focal point designee shall be provided prior to submission of request for registration to the GCC Program. This authorization is not required if ACCs are requested to be issued for monitoring period ending on or prior to 31 December 2020 and this is not a requirement for C+ Label. A written attestation from the host country's national focal point or focal point designee will be provided at the earliest opportunity, but prior to submission of requesting issuance to the GCC Program for the relevant monitoring period form 01/01/2021 onwards, for the issuance of ACCs with CORSIA-market eligibility flag (C+).

Appendix 1. Contact information of project owners

Organization name	Masfen İnşaat Enerji San. Ve Tic. A.Ş.
Country	Türkiye
Address	Çağlayan Mahallesi 2000. Sokak No:2/2 07230 Lara/Muratpaşa/Antalya
Telephone	+90 242 732 32 32
Fax	+90 242 732 32 32
E-mail	recepcildarul@masfen.com.tr info@masfen.com.tr
Website	-
Contact person	Recep ÇİLDARUL

Organization name	AAB ENERJİ ÜRETİM TARIMSAL ÜRÜNLER GIDA İNŞAAT SANAYİ TİCARET A.Ş.
Country	Türkiye
Address	Çağlayan Mahallesi 2000. Sokak No:2/2 07230 Lara/Muratpaşa/Antalya
Telephone	+90 242 732 32 32
Fax	+90 242 732 32 32
E-mail	recepcildarul@masfen.com.tr info@masfen.com.tr
Website	-
Contact person	Recep ÇİLDARUL

Organization name	METGES ENERJİ ELEKTRİK ÜRETİM A.Ş.
Country	Türkiye
Address	Çağlayan Mahallesi 2000. Sokak No:2/2 07230 Lara/Muratpaşa/Antalya
Telephone	+90 242 732 32 32
Fax	+90 242 732 32 32
E-mail	recepcildarul@masfen.com.tr info@masfen.com.tr
Website	-
Contact person	Recep ÇİLDARUL

Appendix 2. Affirmation regarding public funding

N/A

Appendix 3. Applicability of methodology(ies)

N/A

Appendix 4. Further background information on ex ante calculation of emission reductions

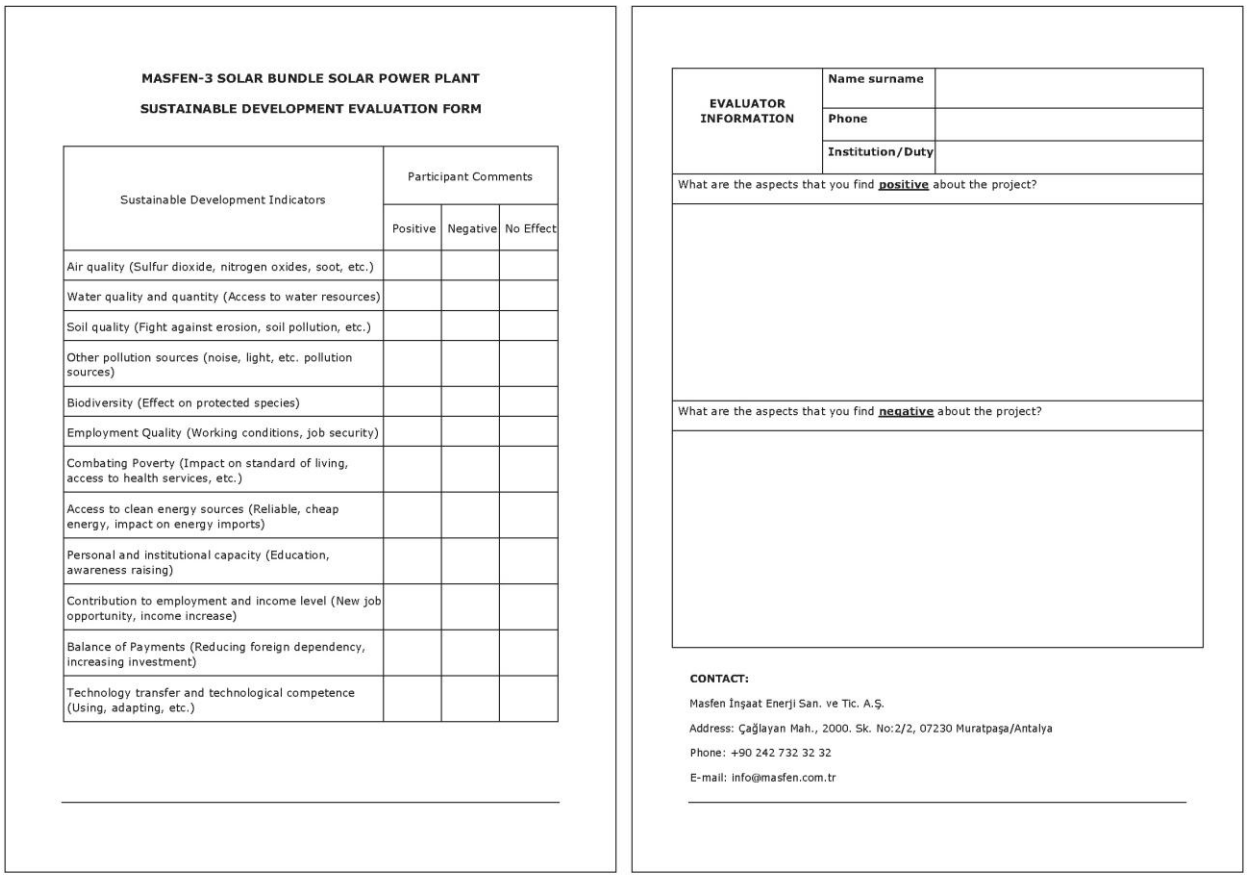
N/A

Appendix 5. Further background information on monitoring plan

N/A

Appendix 6. Summary report of comments received from local stakeholders

The forms filled by the local stakeholders are provided in this section. Their personal phone numbers are covered in order to respect their privacy.



MASFEN-3 SOLAR BUNDLE SOLAR POWER PLANT

SUSTAINABLE DEVELOPMENT EVALUATION FORM

Sustainable Development Indicators	Participant Comments		
	Positive	Negative	No Effect
Air quality (Sulfur dioxide, nitrogen oxides, soot, etc.)			
Water quality and quantity (Access to water resources)			
Soil quality (Fight against erosion, soil pollution, etc.)			
Other pollution sources (noise, light, etc. pollution sources)			
Biodiversity (Effect on protected species)			
Employment Quality (Working conditions, job security)			
Combating Poverty (Impact on standard of living, access to health services, etc.)			
Access to clean energy sources (Reliable, cheap energy, impact on energy imports)			
Personal and institutional capacity (Education, awareness raising)			
Contribution to employment and income level (New job opportunity, income increase)			
Balance of Payments (Reducing foreign dependency, increasing investment)			
Technology transfer and technological competence (Using, adapting, etc.)			

EVALUATOR INFORMATION	Name surname	
	Phone	
	Institution/Duty	

What are the aspects that you find **positive** about the project?

What are the aspects that you find **negative** about the project?

CONTACT:

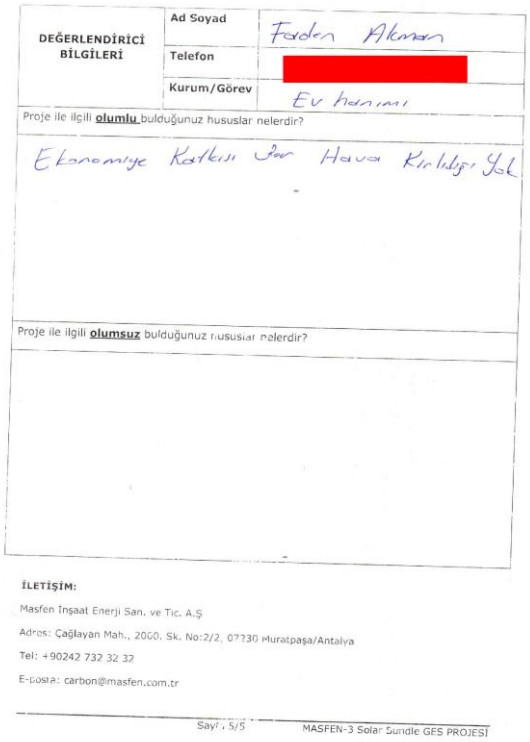
Masfen İnşaat Enerji San. ve Tic. A.Ş.

Address: Çağlayan Mah., 2000. Sk. No:2/2, 07230 Muratpaşa/Antalya

Phone: +90 242 732 32 32

E-mail: info@masfen.com.tr

Figure 7. Sustainable development evaluation form provided to local stakeholders



DEĞERLENDİRİCİ BİLGİLERİ		
	Ad Soyad	Farden Akman
	Telefon	[redacted]
	Kurum/Görev	Ev hanımı

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Ekonomiye Katkısı Var Hava Kirliliği Yok

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:

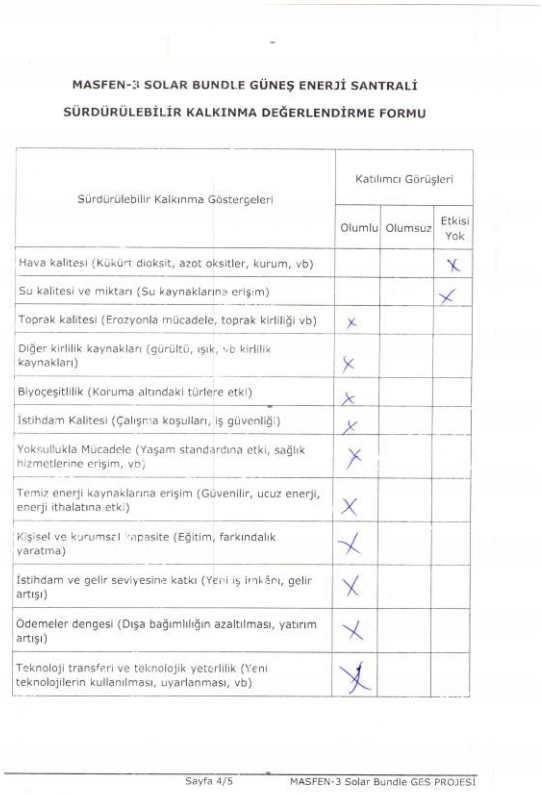
Masfen İnşaat Enerji San. ve Tic. A.Ş

Adres: Çağlayan Mah., 2000. Sk. No:2/2, 07230 Muratpaşa/Antalya

Tel: +90242 732 32 32

E-posta: carbon@masfen.com.tr

Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ



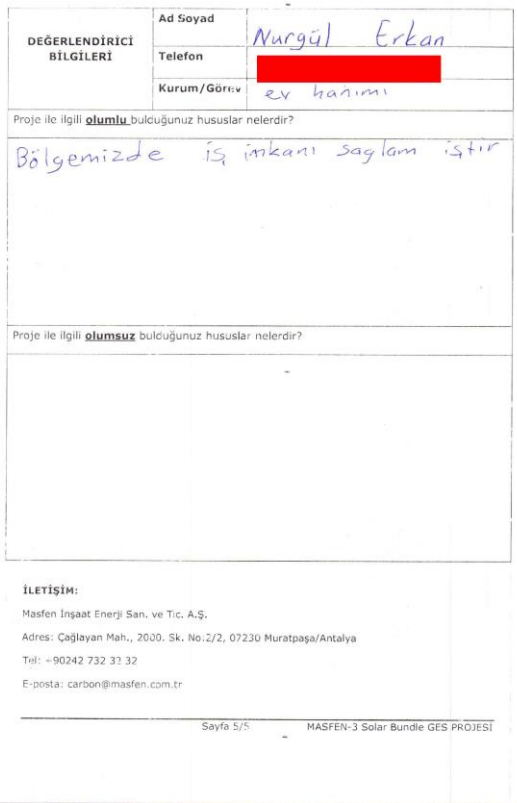
MASFEN-3 SOLAR BUNDLE GÜNEŞ ENERJİ SANTRALİ

SÜRDÜRÜLEBİLİR KALKINMA DEĞERLENDİRME FORMU

Sürdürülebilir Kalkınma Göstergeleri	Katılımcı Görüşleri		
	Olumlu	Olumsuz	Etkisi Yok
Hava kalitesi (Kükürt dioksit, azot oksitler, kurum, vb)			X
Su kalitesi ve miktarı (Su kaynaklarına erişim)			X
Toprak kalitesi (Erozyonla mücadele, toprak kirliliği vb)	X		
Diğer kirlilik kaynakları (gürültü, ışık, vb kirlilik kaynakları)	X		
Biyoçeşitlilik (Koruma altındaki türlere etki)	X		
İstihdam Kalitesi (Çalışma koşulları, iş güvenliği)	X		
Yoksullukla Mücadele (Yaşam standardına etki, sağlık hizmetlerine erişim, vb)	X		
Temiz enerji kaynaklarına erişim (Güvenilir, ucuz enerji, enerji ithalatına etki)	X		
Kişisel ve kurumsal kapasite (Eğitim, farkındalık yaratma)	X		
İstihdam ve gelir seviyesine katkı (Yeni iş imkânı, gelir artışı)	X		
Ödemeler dengesi (Dışa bağımlılığın azaltılması, yatırım artışı)	X		
Teknoloji transferi ve teknolojik yeterlilik (Yeni teknolojilerin kullanılması, uyarlanması, vb)	X		

Sayfa 4/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Farden Akman (F)
	Institution/Duty	Housewife
What are the aspects that you find **positive** about the project?		
Benefits the economy. No air pollution.		
What are the aspects that you find **negative** about the project?		



DEĞERLENDİRİCİ BİLGİLERİ	Ad Soyad	Nurgül Erkan
	Telefon	[redacted]
	Kurum/Görev	ev hanımı

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

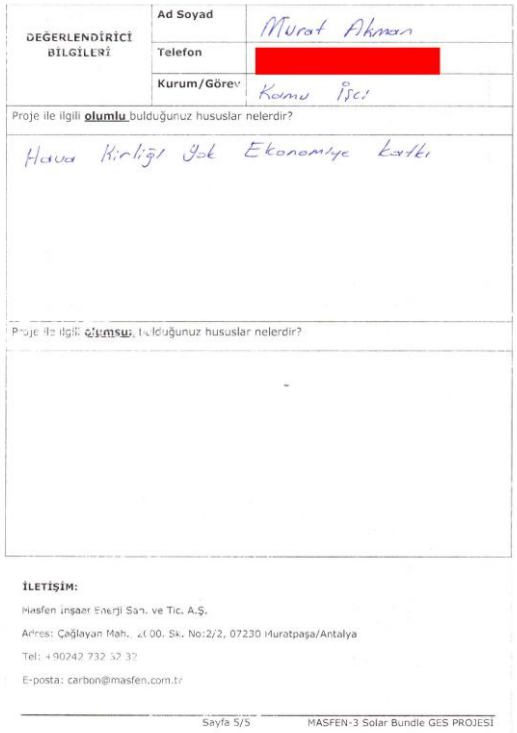
Bölgemizde iş imkanı sağlamıştır

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:
Masfen İnşaat Enerji San. ve Tic. A.Ş.
Adres: Çağlayan Mah., 2000. Sk. No:2/2, 07230 Muratpaşa/Antalya
Tel: +90242 732 33 32
E-posta: carbon@masfen.com.tr

Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Nurgül Erkan (F)
	Institution/Duty	Housewife
What are the aspects that you find **positive** about the project?		
Project created job opportunities in our region.		
What are the aspects that you find **negative** about the project?		



DEĞERLENDİRİCİ BİLGİLERİ	Ad Soyad	Murat Akman
	Telefon	[redacted]
	Kurum/Görev	Kamu İşçi

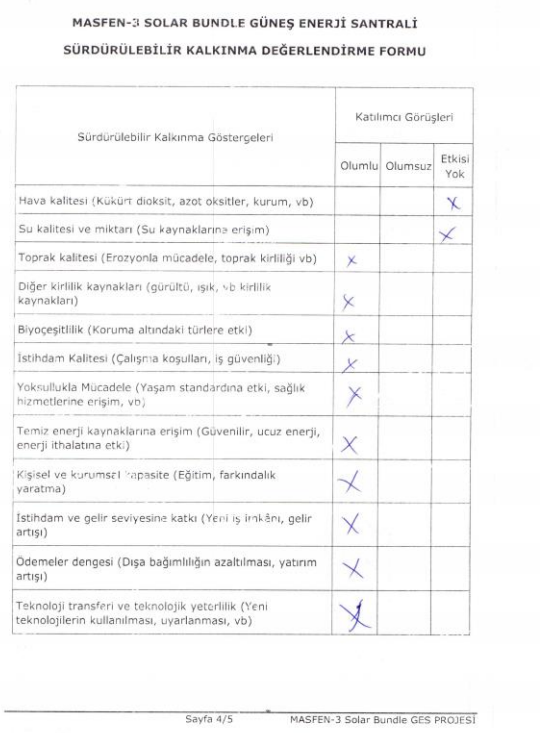
Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Hava Kirliliği Yok Ekonomiye katkı

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:
Masfen İnşaat Enerji San. ve Tic. A.Ş.
Adres: Çağlayan Mah. 2000. Sk. No:2/2, 07230 Muratpaşa/Antalya
Tel: +90242 732 52 32
E-posta: carbon@masfen.com.tr

Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ



MASFEN-3 SOLAR BUNDLE GÜNEŞ ENERJİ SANTRALİ

SÜRDÜRÜLEBİLİR KALKINMA DEĞERLENDİRME FORMU

Sürdürülebilir Kalkınma Göstergeleri	Katılımcı Görüşleri		
	Olumlu	Olumsuz	Etkisi Yok
Hava kalitesi (Kükürt dioksit, azot oksitler, kurum, vb)			X
Su kalitesi ve miktarı (Su kaynaklarına erişim)			X
Toprak kalitesi (Erozyonla mücadele, toprak kirliliği vb)	X		
Diğer kirlilik kaynakları (gürültü, ışık, vb kirlilik kaynakları)	X		
Biyoçeşitlilik (Koruma altındaki türlere etki)	X		
İstihdam Kalitesi (Çalışma koşulları, iş güvenliği)	X		
Yoksullukla Mücadele (Yaşam standardına etki, sağlık hizmetlerine erişim, vb)	X		
Temiz enerji kaynaklarına erişim (Güvenilir, ucuz enerji, enerji ithalatına etki)	X		
Kişisel ve kurumsal kapasite (Eğitim, farkındalık yaratma)	X		
İstihdam ve gelir seviyesine katkı (Yeni iş imkânı, gelir artışı)	X		
Ödemeler dengesi (Dışa bağımlılığın azaltılması, yatırım artışı)	X		
Teknoloji transferi ve teknolojik yeterlilik (Yeni teknolojilerin kullanılması, uyarlanması, vb)	X		

Sayfa 4/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Murat Akman
	Institution/Duty	Public personnel
What are the aspects that you find **positive** about the project?		
Benefits the economy without creating air pollution.		
What are the aspects that you find **negative** about the project?		

DEĞERLENDİRİCİ BİLGİLERİ	Ad Soyad	Ayşe Bulut
	Telefon	[redacted]
	Kurum/Görev	Ev Hanımı

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Bölgemize iş imkanı konusunda iş yaratmıştır.

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:

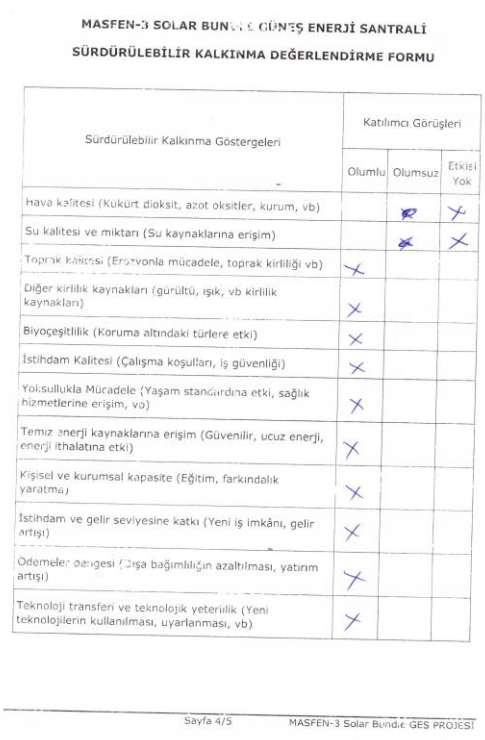
Masfen İnşaat Enerji San. ve Tic. A.Ş.

Adres: Çağlayan Mah., 2000. Sk. No:2/2, 07230 Muratpaşa/Antalya

Tel: +90242 732 32 32

E-posta: carbon@masfen.com.tr

Sayfa 5/5 – MASFEN-3 Solar Bundle GES PROJESİ



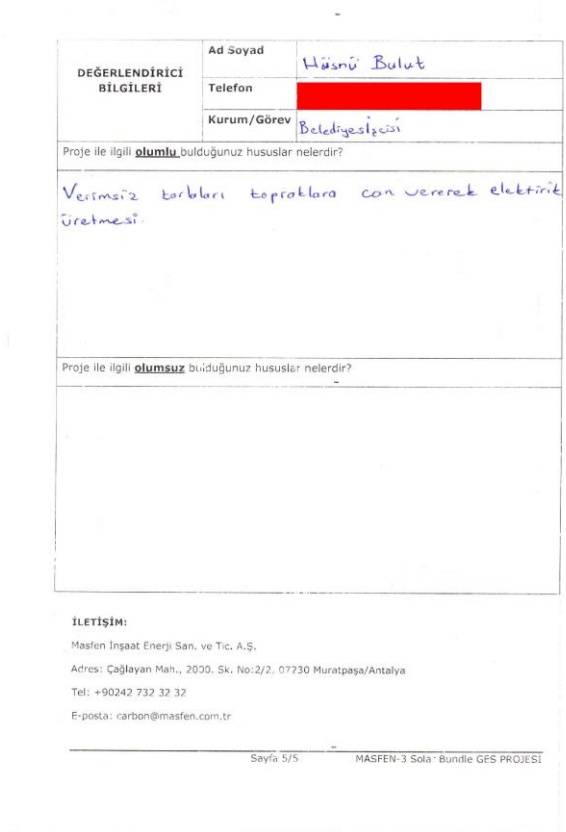
MASFEN-3 SOLAR BUNDLE GÜNEŞ ENERJİ SANTRALİ

SÜRDÜRÜLEBİLİR KALKINMA DEĞERLENDİRME FORMU

Sürdürülebilir Kalkınma Göstergeleri	Katılımcı Görüşleri		
	Olumlu	Olumsuz	Etkisi Yok
Hava kalitesi (Kükürt dioksit, azot oksitler, kurum, vb)		X	X
Su kalitesi ve miktarı (Su kaynaklarına erişim)		X	X
Toprak kalitesi (Erozyonla mücadele, toprak kirliliği vb)	X		
Diğer kirlilik kaynakları (gürültü, ışık, vb kirlilik kaynakları)	X		
Biyoçeşitlilik (Koruma altındaki türlere etki)	X		
İstihdam Kalitesi (Çalışma koşulları, iş güvenliği)	X		
Yoksullukla Mücadele (Yaşam standardına etki, sağlık hizmetlerine erişim, vb)	X		
Temiz enerji kaynaklarına erişim (Güvenilir, ucuz enerji, enerji ithalatına etki)	X		
Kişisel ve kurumsal kapasite (Eğitim, farkındalık yaratma)	X		
İstihdam ve gelir seviyesine katkı (Yeni iş imkânı, gelir artışı)	X		
Ödemeler dengesi (Dışa bağımlılığın azaltılması, yatırım artışı)	X		
Teknoloji transferi ve teknolojik yeterlilik (Yeni teknolojilerin kullanılması, uyarlanması, vb)	X		

Sayfa 4/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Ayşe Bulut (F)
	Institution/Duty	Housewife
What are the aspects that you find **positive** about the project?		
The project creates job opportunities in our region.		
What are the aspects that you find **negative** about the project?		



DEĞERLENDİRİCİ BİLGİLERİ	Ad Soyad	Hüsnü Bulut
	Telefon	[redacted]
	Kurum/Görev	Belediye İşçisi

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

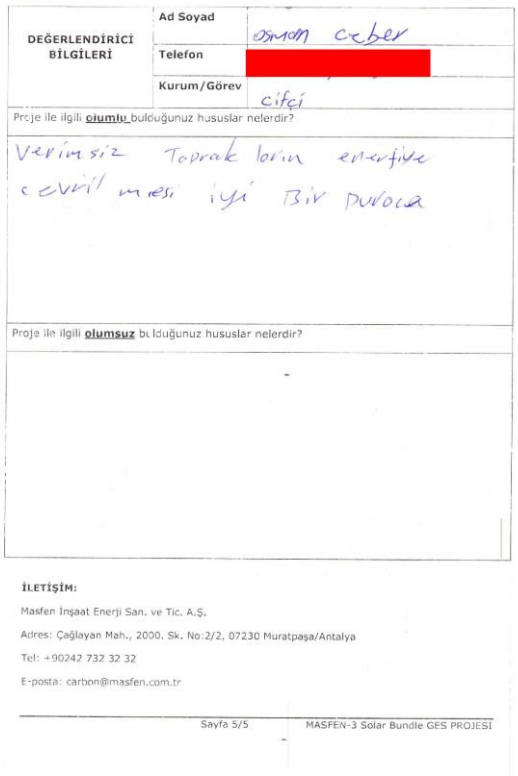
Verimsiz tarlaları topraklara can vererek elektirik üretmesi.

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:
Masfen İnşaat Enerji San. ve Tic. A.Ş.
Adres: Çağlayan Mah., 2000. Sk. No:2/2, 07230 Muratpaşa/Antalya
Tel: +90242 732 32 32
E-posta: carbon@masfen.com.tr

Sayfa 5/5 MASFEN-3 Sola - Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Hüsnü Bulut
	Institution/Duty	Municipality worker
What are the aspects that you find **positive** about the project?		
Arid lands are used to generate electricity		
What are the aspects that you find **negative** about the project?		



DEĞERLENDİRİCİ BİLGİLERİ		
	Ad Soyad	osman ceber
	Telefon	[redacted]
	Kurum/Görev	çiftçi

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Verimsiz Toprak lerin enerjiye çevrilmesi iyi Bir durum

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:
Masfen İnşaat Enerji San. ve Tic. A.Ş.
Adres: Çağlayan Mah., 2000. Sk. No:2/2, 07230 Muratpaşa/Antalya
Tel: +90242 732 32 32
E-posta: carbon@masfen.com.tr

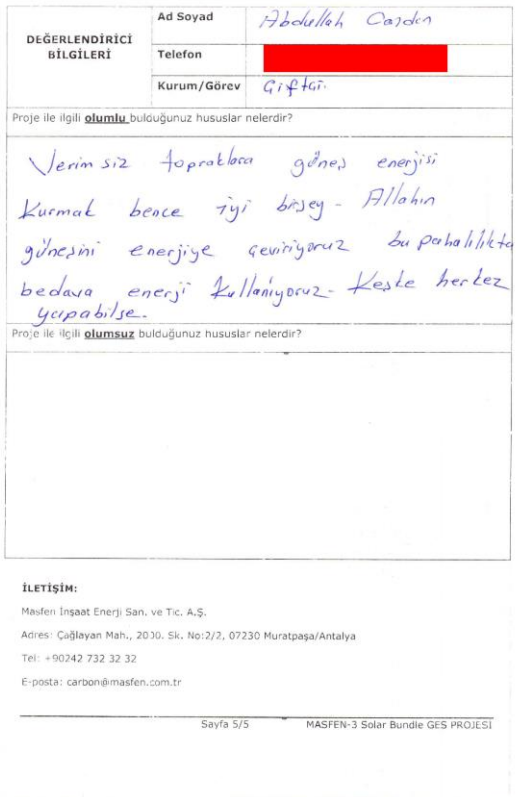
Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ

MASFEN-3 SOLAR BUNDLE GÜNEŞ ENERJİ SANTRALİ
SÜRDÜRÜLEBİLİR KALKINMA DEĞERLENDİRME FORMU

Sürdürülebilir Kalkınma Göstergeleri	Katılımcı Görüşleri		
	Olumlu	Olumsuz	Etkisi Yok
Hava kalitesi (Kükürt dioksit, azot oksitler, kurum, vb)			+
Su kalitesi ve miktarı (Su kaynaklarına erişim)			+
Toprak kalitesi (Erozyonla mücadele, toprak kirliliği vb)	+		
Diğer kirlilik kaynakları (gürültü, ışık, vb kirlilik kaynakları)	+		
Biyoçeşitlilik (Koruma altındaki türlere etki)	+		
İstihdam Kalitesi (Çalışma koşulları, iş güvenliği)	+		
Yoksullukla Mücadele (Yaşam standardına etki, sağlık hizmetlerine erişim, vb)	+		
Temiz enerji kaynaklarına erişim (Güvenilir, ucuz enerji, enerji ithalatına etki)	+		
Kişisel ve kurumsal kapasite (Eğitim, farkındalık yaratma)	+		
İstihdam ve gelir seviyesine katkı (Yeni iş imkânı, gelir artışı)	+		
Ödemeler dengesi (Dışa bağımlılığın azaltılması, yatırım artışı)	+		
Teknoloji transferi ve teknolojik yeterlilik (Yeni teknolojilerin kullanılması, uyarlanması, vb)	+		

Sayfa 4/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Osman Ceber
	Institution/Duty	Farmer
What are the aspects that you find **positive** about the project?		
It is good that arid lands are used to generate electricity.		
What are the aspects that you find **negative** about the project?		



DEĞERLENDİRİCİ BİLGİLERİ		
	Ad Soyad	Abdullah Candan
	Telefon	[redacted]
	Kurum/Görev	Çiftçi

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

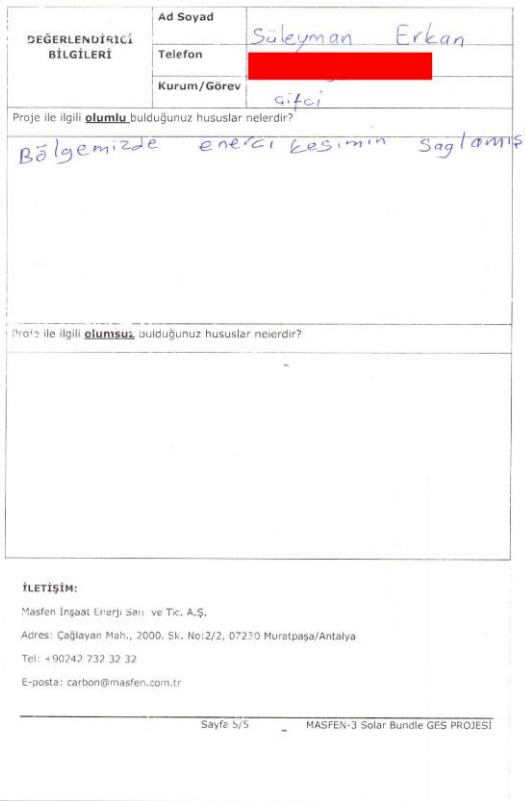
Verimsiz topraklara güneş enerjisi kurmak bence iyi bişey - Allahın güneşini enerjiye çeviriyoruz bu pahalılıkta bedava enerji kullanıyoruz - Keşke herkez yapabilse.

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:
Masfen İnşaat Enerji San. ve Tic. A.Ş.
Adres: Çağlayan Mah., 2030. Sk. No:2/2, 07230 Muratpaşa/Antalya
Tel: +90242 732 32 32
E-posta: carbon@masfen.com.tr

Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Abdullar Candan
	Institution/Duty	Farmer
What are the aspects that you find **positive** about the project?		
I think it is a nice thing to build solar power plants on arid lands. We convert God's sun to energy in these expensive times. I wish it would be done everywhere.		
What are the aspects that you find **negative** about the project?		



DEĞERLENDİRİCİ BİLGİLERİ	Ad Soyad	Süleyman Erkan
	Telefon	[redacted]
	Kurum/Görev	Çiftçi

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Bölgemizde enerji kesimin sağlanmıştır

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:
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Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Süleyman Erkan
	Institution/Duty	Farmer
What are the aspects that you find **positive** about the project?		
Generated electricity in our region.		
What are the aspects that you find **negative** about the project?		

DEĞERLENDİRİCİ BİLGİLERİ	Ad Soyad	Musa Yiğit
	Telefon	[redacted]
	Kurum/Görev	İşçi

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

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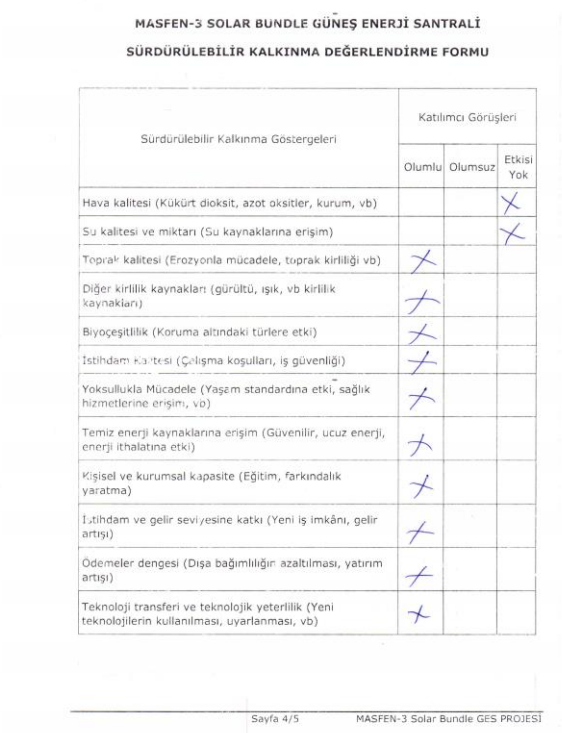
Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ



MASFEN-3 SOLAR BUNDLE GÜNEŞ ENERJİ SANTRALİ
SÜRDÜRÜLEBİLİR KALKINMA DEĞERLENDİRME FORMU

Sürdürülebilir Kalkınma Göstergeleri	Katılımcı Görüşleri		
	Olumlu	Olumsuz	Etkisi Yok
Hava kalitesi (Kükürt dioksit, azot oksitler, kurum, vb)			X
Su kalitesi ve miktarı (Su kaynaklarına erişim)			X
Toprak kalitesi (Erozyonla mücadele, toprak kirliliği vb)	X		
Diğer kirlilik kaynakları (gürültü, ışık, vb kirlilik kaynakları)	X		
Biyoçeşitlilik (Koruma altındaki türlere etki)	X		
İstihdam kalitesi (Çalışma koşulları, iş güvenliği)	X		
Yoksullukla Mücadele (Yaşam standardına etki, sağlık hizmetlerine erişim, vb)	X		
Temiz enerji kaynaklarına erişim (Güvenilir, ucuz enerji, enerji ithalatına etki)	X		
Kişisel ve kurumsal kapasite (Eğitim, farkındalık yaratma)	X		
İstihdam ve gelir seviyesine katkı (Yeni iş imkânı, gelir artışı)	X		
Ödemeler dengesi (Dışa bağımlılığın azaltılması, yatırım artışı)	X		
Teknoloji transferi ve teknolojik yeterlilik (Yeni teknolojilerin kullanılması, uyarlanması, vb)	X		

Sayfa 4/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Musa Yiğit
	Institution/Duty	Worker
What are the aspects that you find **positive** about the project?		
What are the aspects that you find **negative** about the project?		

DEĞERLENDİRİCİ BİLGİLERİ		
	Ad Soyad	Fadime Yiğit
	Telefon	[redacted]
	Kurum/Görev	Ev Hanımı

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Kesintisiz elektirik santrali.

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

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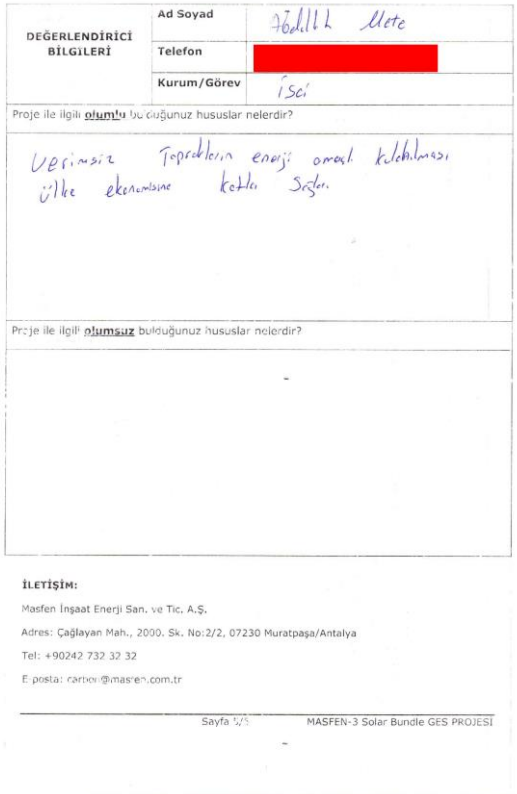
Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ

MASFEN-3 SOLAR BUNDLE GÜNEŞ ENERJİ SANTRALİ
SÜRDÜRÜLEBİLİR KALKINMA DEĞERLENDİRME FORMU

Sürdürülebilir Kalkınma Göstergeleri	Katılımcı Görüşleri		
	Olumlu	Olumsuz	Etkisi Yok
Hava kalitesi (Kükürt dioksit, azot oksitler, kurum, vb)			✓
Su kalitesi ve miktarı (Su kaynaklarına erişim)			✓
Toprak kalitesi (Erozyonla mücadele, toprak kirliliği vb)	✓		
Diğer kirlilik kaynakları (gürültü, ışık, vb kirlilik kaynakları)	✓		
Biyoçeşitlilik (Koruma altındaki türlere etki)	✓		
İstihdam Kalitesi (Çalışma koşulları, iş güvenliği)	✓		
Yoksullukla Mücadele (Yaşam standardına etki, sağlık hizmetlerine erişim, vb)	✓		
Temiz enerji kaynaklarına erişim (Güvenilir, ucuz enerji, enerji ithalatına etki)	✓		
Kişisel ve kurumsal kapasite (Eğitim, farkındalık yaratma)	✓		
İstihdam ve gelir seviyesine katkı (Yeni iş imkânı, gelir artışı)	✓		
Ödemeler dengesi (Dışa bağımlılığın azaltılması, yatırım artışı)	✓		
Teknoloji transferi ve teknolojik yeterlilik (Yeni teknolojilerin kullanılması, uyarlanması, vb)	✓		

Sayfa 4/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Fadime Yiğit (F)
	Institution/Duty	Housewife
What are the aspects that you find **positive** about the project?		
Continuous electricity generation		
What are the aspects that you find **negative** about the project?		



DEĞERLENDİRİCİ BİLGİLERİ		
	Ad Soyad	Abdullah Mete
	Telefon	[redacted]
	Kurum/Görev	İşçi

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Verimsiz Toprakların enerji amaçlı kullanılması ülke ekonomisine katkı sağlar.

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

İLETİŞİM:

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Sayfa 3/5 MASFEN-3 Solar Bundle GES PROJESİ

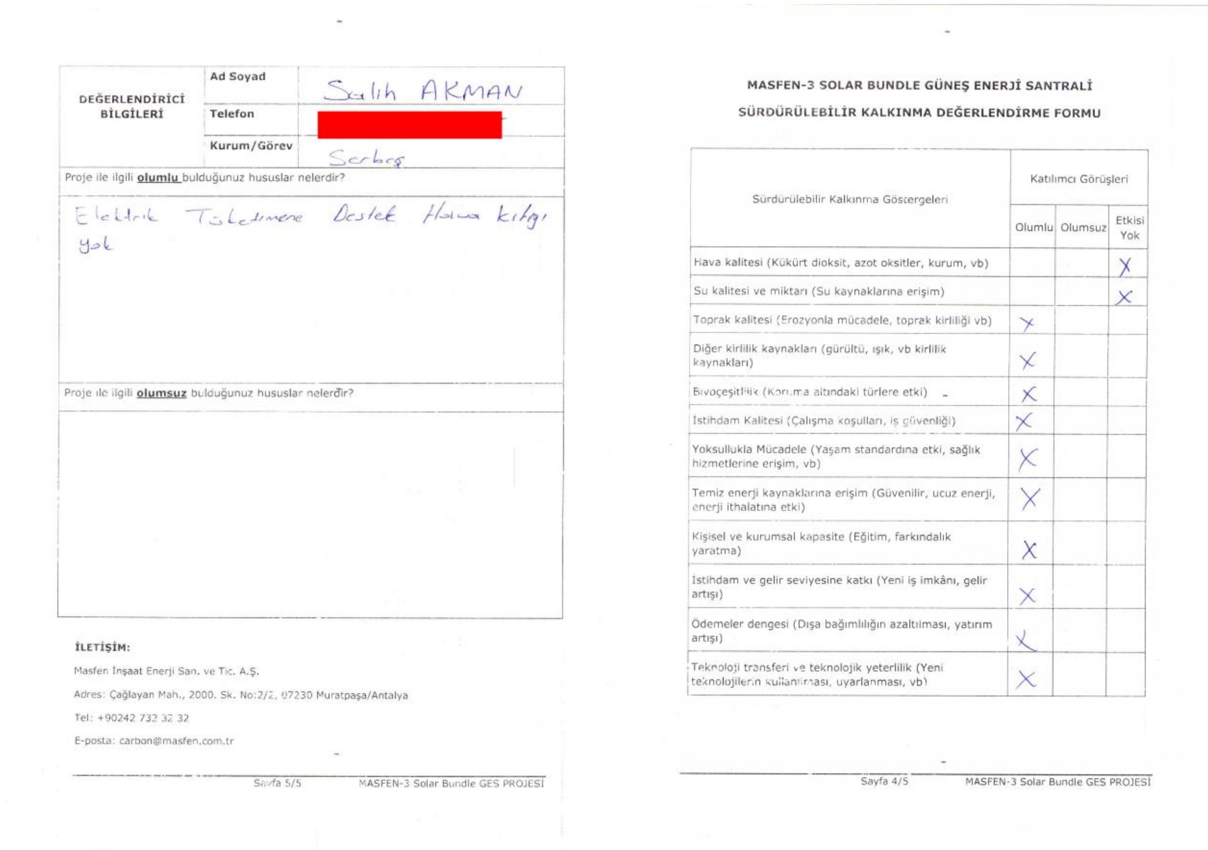
MASFEN-3 SOLAR BUNDLE GÜNEŞ ENERJİ SANTRALİ

SÜRDÜRÜLEBİLİR KALKINMA DEĞERLENDİRME FORMU

Sürdürülebilir Kalkınma Göstergeleri	Katılımcı Görüşleri		
	Olumlu	Olumsuz	Etkisi Yok
Hava kalitesi (Kükürt dioksit, azot oksitler, kurum, vb)			+
Su kalitesi ve miktarı (Su kaynaklarına erişim)			+
Toprak kalitesi (Erozyonla mücadele, toprak kirliliği vb)	+		
Diğer kirlilik kaynakları (gürültü, ışık, vb kirlilik kaynakları)	+		
Biyoçeşitlilik (Koruma altındaki türlere etki)	+		
İstihdam Kalitesi (Çalışma koşulları, iş güvenliği)	+		
Yoksullukla Mücadele (Yaşam standardına etki, sağlık hizmetlerine erişim, vb)	+		
Temiz enerji kaynaklarına erişim (Güvenilir, ucuz enerji, enerji ithalatına etki)	+		
Kişisel ve kurumsal kapasite (Eğitim, farkındalık yaratma)	+		
İstihdam ve gelir seviyesine katkı (Yeni iş imkânı, gelir artışı)	+		
Ödemeler dengesi (Dışa bağımlılığın azaltılması, yatırım artışı)	+		
Teknoloji transferi ve teknolojik yeterlilik (Yeni teknolojilerin kullanılması, uyarlanması, vb)	+		

Sayfa 4/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Abdullah Mete
	Institution/Duty	Worker
What are the aspects that you find **positive** about the project?		
Arid lands are being used for energy generation. Benefits the national economy.		
What are the aspects that you find **negative** about the project?		



DEĞERLENDİRİCİ BİLGİLERİ	Ad Soyad	Salih AKMAN
	Telefon	[redacted]
	Kurum/Görev	Serbest

Proje ile ilgili **olumlu** bulduğunuz hususlar nelerdir?

Elektrik Tüketimine Destek Hava kirliliği yok

Proje ile ilgili **olumsuz** bulduğunuz hususlar nelerdir?

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Sayfa 5/5 MASFEN-3 Solar Bundle GES PROJESİ

MASFEN-3 SOLAR BUNDLE GÜNEŞ ENERJİ SANTRALİ
SÜRDÜRÜLEBİLİR KALKINMA DEĞERLENDİRME FORMU

Sürdürülebilir Kalkınma Göstergeleri	Katılımcı Görüşleri		
	Olumlu	Olumsuz	Etkisi Yok
Hava kalitesi (Kükürt dioksit, azot oksitler, kurum, vb)			X
Su kalitesi ve miktarı (Su kaynaklarına erişim)			X
Toprak kalitesi (Erozyonla mücadele, toprak kirliliği vb)	X		
Diğer kirlilik kaynakları (gürültü, ışık, vb kirlilik kaynakları)	X		
Biyoçeşitlilik (Koruma altındaki türlere etki)	X		
İstihdam Kalitesi (Çalışma koşulları, iş güvenliği)	X		
Yoksullukla Mücadele (Yaşam standardına etki, sağlık hizmetlerine erişim, vb)	X		
Temiz enerji kaynaklarına erişim (Güvenilir, ucuz enerji, enerji ithalatına etki)	X		
Kişisel ve kurumsal kapasite (Eğitim, farkındalık yaratma)	X		
İstihdam ve gelir seviyesine katkı (Yeni iş imkânı, gelir artışı)	X		
Ödemeler dengesi (Dışa bağımlılığın azaltılması, yatırım artışı)	X		
Teknoloji transferi ve teknolojik yeterlilik (Yeni teknolojilerin kullanılması, uyarlanması, vb)	X		

Sayfa 4/5 MASFEN-3 Solar Bundle GES PROJESİ

EVALUATOR INFORMATION	**Name surname**	Salih Akman
	Institution/Duty	Self-employment
What are the aspects that you find **positive** about the project?		
Supports electricity generation without causing air pollution.		
What are the aspects that you find **negative** about the project?		

Appendix 7. Summary of de-registered CDM project (Type B)

N/A

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