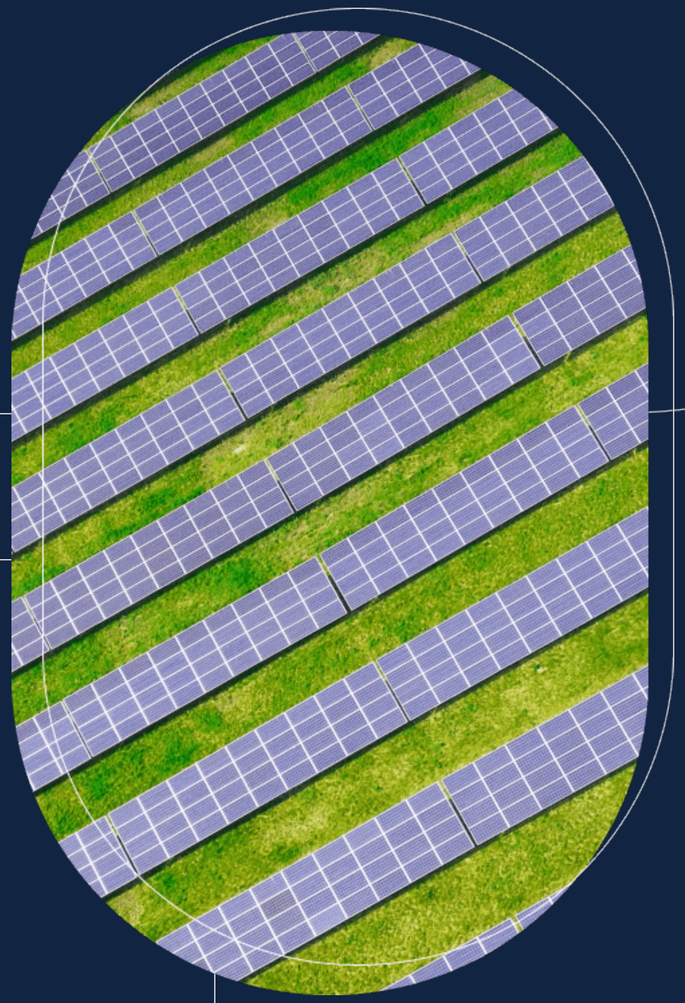
THE PROJECT'S CLIMATE IMPACT



The project’s 200 MWp solar power plants will generate 370,000,000 kWh of electricity per year upon commencement of production at full capacity (Turkish average: 1 MWp solar power plant = 1,850,000 kWh). This will prevent approximately 239,834 tons of fCO2 greenhouse gas emissions (tCO2/MWh, current emission factor is 0.66482).

In 2019, registered motor vehicles in Turkey traveled a total of 301,555,000,000 km. 55.2% of the total kilometers covered were driven by cars. When we look at the average kilometers covered by different types of vehicles in a year, cars covered 13,500 km in 2019. Greenhouse gas emissions per liter of gasoline are 2.31 kg of CO2, slightly lower than diesel. Studies have shown that a vehicle that consumes 6 liters of gasoline per 100 km would have a carbon footprint of 70.3 kg of CO2, while a vehicle that consumes 8 liters of gasoline per 100 kilometers would emit 93.7 kg of CO2 for the same journey.

In 2016, it was announced that about 30% of the total carbon dioxide emissions in the European Union were caused by transport and more than 70% of them were the result of road vehicles.

The contribution to the reduction of greenhouse gas emissions of using the electrical energy generated by the project in vehicles can be calculated as follows: A car travels an average of 13,500 km per year. The range of an average electric vehicle with a 90 kW battery is 400 km. In this case, a vehicle's battery is charged an average of 33.75 times per year. This corresponds to an energy consumption of about 3,038 kWh. When the project's solar power plants reach full capacity, average annual production is planned to be 369,315,500 kWh. In this case, the energy consumption of 121,588 cars per year can be covered by the project. The annual km equivalent is 1,620,160,100 km. This equates to more than 1.6 billion road km and 1,138,971 tons of fCO2 greenhouse gas emissions. When we consider that electric cars emit 80% less greenhouse gases, 911,177 tons of fCO2 greenhouse gas emissions will be prevented. The project will thereby prevent the emission of 239,934 tons of fCO2 in energy generation and 911,177 tons of fCO2 in energy consumption, meaning a total of 1,151,111 tons of fCO2 greenhouse gas emissions.

CLIMATE IMPACT OF THE PROJECT

According to the results of TurkStat's greenhouse gas inventory, overall greenhouse gas emissions as CO2 equivalent in 2020 increased by 3.1% to 523.9 million tons (Mt) compared to the previous year. The project provides a level of climate improvement that can reduce our country's greenhouse gas emissions by 0.219%.

In 2020, 85.4% of our country's total CO2 emissions came from the energy sector, including 31.6% from electricity and heat generation, 14.2% from industrial processes and product use, and 0.4% from the agriculture and waste sectors. The project aims to achieve a significant improvement in the energy sector, where emissions are increasing the most and where the increase has been particularly significant since the pandemic.

	2022*	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Number of vehicle battery charges that can be served	6.817	238.408	556.286	801.051	973.806	1.005.165	1.322.890	1.767.705	2.051.800	2.051.800	2.051.800	2.051.800
Number of charges (average)	34	34	34	34	34	34	34	34	34	34	34	34
Number of vehicles whose entire energy needs can be met from GIO Stations	202	7.064	16.483	23.735	28.853	29.783	39.197	52.376	60.794	60.794	60.794	60.794
Number of vehicles whose entire energy needs can be met from other stations	202	7.064	16.483	23.735	28.853	29.783	39.197	52.376	60.794	60.794	60.794	60.794
Total number of vehicles whose total energy needs can be met	404	14.128	32.965	47.470	57.707	59.565	78.393	104.753	121.588	121.588	121.588	121.588
Greenhouse gas emissions that could be avoided from consumption (fCo2)	3.027	105.874	247.039	355.736	432.454	446.381	587.478	785.014	911.177	911.177	911.177	911.177
Renewable energy that can be produced (kWh)	0	42.913.467	100.131.423	144.189.249	175.285.008	180.929.779	238.120.227	318.186.853	369.324.026	369.324.026	369.324.026	369.324.026
Greenhouse gas emissions that could be avoided from production (fCo2)	0	27.879	65.051	93.674	113.875	117.542	154.697	206.712	239.934	239.934	239.934	239.934
Total avoidable greenhouse gas emissions (fCo2)	3.027	133.753	312.090	449.410	546.329	563.923	742.174	991.726	1.151.111	1.151.111	1.151.111	1.151.111

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