south pole

SALAVATLI GEOTHERMAL ENERGY TURKEY

Powering Turkey with sustainable thermal energy from the Earth's centre

This project in western Turkey generates clean, renewable energy for the electricity grid by harnessing thermal heat from beneath the Earth's surface. As Turkey's first private sector geothermal plant, the Salavatlı Geothermal project both boosts the development of the renewables industry and supports the country's energy security.

The Context

The Salavatlı region has good potential for geothermal energy production, but the high cost of research needed to boost Turkey's geothermal sector have historically presented a roadblock to its development.

The Project

This Salavatlı project in West Turkey is the nation's first geothermal enterprise developed by the private sector – made economically viable by the sale of carbon credits. Located on the southern hillside of the Aydın Mountains, this project generates renewable, geothermal power with a thermal fluid pumping system. The fluid is first pumped up to the surface through production wells in the surrounding Aydın Sultanhisar-Salavatlı geothermal field. It then passes through a heat exchanger, after which it is vaporised to generate electricity via a turbine and generator. The heat discharged after the power generation is supplied to regional greenhouses, and any leftover geothermal fluid is re-injected into the reservoir. This creates a closed production cycle that avoids greenhouse gas emissions.

The Benefits

This project proves the viability of grid-connected renewable energy projects in Turkey, and is an outstanding example for other investors who might be looking to make the most of the country's geothermal potential. Beyond the environmental benefits of displacing polluting, fossil fuel-generated electricity, and the economic benefits of boosting the Turkish renewables sector, this project also offers benefits to nearby communities, providing temporary and permanent jobs to local people.

As a pioneering geothermal power plant in Turkey, this project stimulates the development of Turkey's sustainable energy industries.

SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

51,284 MWh

of clean energy generated for the grid on average annually, promoting the development of Turkey's renewable energy industry

25 permanent jobs

created, as well as 100 jobs created during the construction period, boosting the regional economy

Repurposed Waste Heat

delivered to regional greenhouses, facilitating sustainable greenhouse agriculture

30,309 tCO_2e

reduced on average annually, contributing to global climate change mitigation efforts

For more information on the UN Sustainable Development Goals, please visit: http://www.un.org/sustainabledevelopment/sustainable-development-goals/

Official name: Aydin Salavatli Dora-1 Geothermal Power Plant | **UNFCC/markit/VCS link:** http://www.vcsprojectdatabase.org/#/project_details/120
UNFCCC/markit/VCS ID: 120