Sustainability action · Project Renewable Energy and Energy Efficiency

Clean Geothermal Power, Turkey

This project involves the construction of a geothermal power plant in Turkey to harness heat from deep beneath the earth's surface and convert it into clean emission-free energy. Generating electricity for the Turkish grid from geothermal energy reduces greenhouse gas emissions, which in the absence of the project would have been released to the atmosphere via the burning of coal.

Project

This emission reduction project is bringing investments, modern technologies, technical knowledge and new jobs to a region mostly typified by agriculture. The sustainable energy project is replacing carbon-intensive electricity from the grid (i.e. fossil fuels) with clean energy from geothermal sources.

To support sustainable development in the region, the project owner has financed the renovation of a local primary school and provided the school with modern equipment.

Technically, the project includes the construction of a plant for sustainable electric power generation with an installed capacity of 9.5 MW. Geothermal heat is brought to the surface through geothermal generation wells. The project employs state-of-the-art technology and helps Turkey meet its growing demand for energy.

Electricity is produced without any adverse environmental impacts, which is of great importance to a country whose GHG emissions have increased by 110% between 1990 and 2013. The operation of the plant avoids the emission of around 41,160 tonnes of CO_2 annually.

It is the first geothermal power plant developed in Turkey to issue Gold Standard certified carbon credits, a label that proves the project's positive impact on climate, people and environment.

Checklist	Additionality and permanence	3rd party verified	Transparency	Annual CO_2-reduction	Social and environmental benefits	Marketing material
Project 300 274	According to the rules of the Gold Standard Foundation	By Germanischer Lloyd Certification	Provided by the Gold Standard Registry	41,000 tCO_2e	As documented in our database	High resolution pictures available

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Location

The project is located in Aydin Province, in southwestern Turkey, in the Aegean region. The power plant is situated in a sparsely populated region, on the southern slopes of the Aydın Mountains.

Project achievements

Socio-economic impact

- The construction of the geothermal plant generated about one hundred temporary jobs.
- About twenty people underwent technical training and found permanent work (with improved working conditions).
- In line with the project owner's desire to support sustainable development, a local primary school received funding for the renovation of the school and was provided with modern teaching equipment.
- The project owner built a public playground (with a basketball court) for children.

Environmental impact

- By replacing electricity generated from fossil fuels, air pollution and associated diseases are being reduced.

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