

## PROJECT DESCRIPTION

Umurlu II GEPP has a production capacity of 12 MWe (3 production, 3 (planned) reinjection wells) and, it is a binary cycle power plant using an Organic Rankine Cycle (ORC) system. The plant produces 72 GWh/year equivalent to cover the demand for over 32 thousand households.

## CARBON FINANCE

The Project was registered under the Verified Carbon Standart (VCS) certification standard.

## ENVIRONMENTAL AND SOCIAL KEY ISSUES

- Potential pollution/contaminant emissions during construction and operation activities;
- Potential visual impact;
- Potential subsidence;
- Potential impact on fauna and flora;
- Cumulative impacts,
- Potential micro seismic activity due to fluid pressure increase during the reinjection;
- Stakeholder engagement;
- Community/workers health and safety both during construction and operation phases.

## MITIGATIONS/SUCCESSFUL IMPLEMENTATION

- Supervision of the construction activities by environmental, social and H&S experts to avoid, prevent, minimize and monitor impacts;
- Implementation of a photo-simulation study;
- Putting in place monitoring campaigns on noise, water quality and air quality during different phases of the project.
- Subsidence and seismicity monitoring;
- Fauna and flora monitoring;
- Visual impact assessment of power plant, wells and piping;
- Implementation of Stakeholder Engagement plan;
- Identification & implementation of mitigation measures to ensure community/workers' safety.
- The installation of the necessary equipment for either reinjection or capture of CO<sub>2</sub> and other non-condensable gases (NCG) aimed at avoiding their venting and limiting CO<sub>2</sub>-equivalent emissions to an absolute maximum of 350 kg/MWh.

GENERAL INFORMATION	
Project Location	Aydin Province
Technology	Geothermal Power Plant
Plant Capacity	12 MWe
Annual Energy Production	72 GWh/year
TIME SCHEDULE	
Start of Construction	January 2015
Expected Commercial Operation	November 2016
FINANCIAL PARAMETERS	
Total Project Cost	EUR 38,725,956
MidSEFF Loan	EUR 26,435,714
Payback Time	7.1 years
Internal Rate of Return	11.9 %

