



ÇELIKLER
JEOTERMAL
PAMUKÖREN,
TURKEY



01 CLIENT BRIEF

Çelikler Jeotermal Elektrik Üretim A.S is active in the energy, construction and mining sectors. Çelikler were looking for a solution to generate a total of 120 MW over 6 new geothermal power plants.

02 THE SOLUTION

The solution proposed by EXERGY was an intelligent plant design supplying higher efficiency. EXERGY, working in a consortium with experienced partners, were responsible for the process design and supply of the entire power cycle.

03 THE RESULT

Çelikler is one of the biggest player in binary geothermal energy production in Turkey today, delivering more than 1000 GWh per year to the Turkish energy grid, thanks to the Pamukören and Sultanhisar projects in collaboration with EXERGY. The plant has also received awards for best energy efficiency and renewable energy projects financed in Turkey in 2015.

CLIENT NAME

ÇELIKLER JEOTERMAL

PLANT NAME

PAMUKÖREN I, II, III, IV, V

PLANT LOCATION

PAMUKÖREN, AYDIN, TURKEY

DATE OF IMPLEMENTATION

I, II - 2013 III, IV, V - 2015

PLANT SIZE

22,5 MW EACH UNIT, 112.5 MW IN TOTAL

APPLICATION

GEOHERMAL

MODEL USED

GEX TM

FLOW OF GEOTHERMAL FLUID

1,400 t/h

TEMPERATURE OF GEOTHERMAL FLUID

178°C

TYPE OF GEOTHERMAL FLUID

BRINE AND STEAM

ELECTRICAL GENERATION GROSS

22,500 kWe

EFFICIENCY GROSS

14%

CONDENSING SYSTEM

AIR (18°C)

GENERATOR VOLTAGE

11 kV

INSTALLATION

OUTDOOR