



Industrie Service

**Choose certainty.
Add value.**



Geothermal Energy. Sustainable. Safe. Efficient from day one.

As costs of imported fossil fuels rise, power and heat generation are becoming increasingly expensive. In addition, industry faces growing pressure to change over to more climate-friendly methods of energy generation. In view of these aspects and the amendment of the Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz, EEG), geothermal power stations are an attractively cost-effective alternative to conventional power generation.

However, the development of a site to be used for a geothermal power station involves high investments. To ensure economic success, potential risks must be minimised throughout all stages of the project.

We want your investments to pay off and your power station to operate efficiently from day one. To achieve these goals, we at TÜV SÜD are at your side and support you with the entire scope of our know-how. Benefit from our long-term experience in plant, power station and environmental engineering and our interdisciplinary approach to maximise your success. Call us!

We support you throughout all stages of your geothermal project

- 1** We survey the selected geothermal site, review your exploration strategy and systematically analyse project risks to ensure your investment is safe from day one. In addition, we advise you comprehensively on licensing and approval procedures.
- 2** In the drilling stage, we ensure highly efficient maximisation of your production horizon, including safety testing of the drilling system.
- 3** We advise you on hydrochemistry, materials and plant engineering to ensure the functional safety of the primary circuit.
- 4** In the power station construction phase, you can rely on our decades of experience and comprehensive know-how.
- 5** On your behalf, we carry out all maintenance inspections and approvals to ensure the safety and availability of your power station.

TÜV SÜD Industrie Service GmbH

TÜV®





Industrie Service



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Build the success of your geothermal project on a solid foundation: TÜV SÜD.

The cost-efficient and safe generation of sustainable and reliable baseload power is what geothermal power stations are all about. With long-standing experience in environmental, plant and power station engineering, we support you by providing interdisciplinary know-how and in-depth familiarity with all relevant regulatory requirements. Secure the efficiency of your plant and enhance the quality of your project throughout all stages.

We provide support in the following areas:

Survey of power-station site

- ▶ Environmental aspects of regional development etc.
- ▶ Geological conditions
- ▶ Approval management, FFH, EIA regulations mining, etc.

Projecting

- ▶ Review of project design
- ▶ Geological consultancy
- ▶ Third-party assessment of project costs

Exploration

- ▶ Contract review/project risk distribution
- ▶ Geological support during drilling operations and tests
- ▶ Consulting on borehole development
- ▶ Cost control (during drilling and exploration)

Testing of drilling system

- ▶ Acceptance testing
- ▶ Periodic inspection

Design review of the geothermal doublet system (plant engineering)

- ▶ Technical consultancy and testing services (materials, strength, corrosion, etc.)

Geochemical consulting

- ▶ Chemical analysis and fluid assessment (e.g. corrosion and aspects of gas dissolution)
- ▶ Assessment of fluid characteristics

Above-ground part of the power station

- ▶ Assessment of power output (thermal/electrical)
- ▶ Review of power station design
- ▶ Plant optimisation proposals
- ▶ Safety tests and approvals
- ▶ Safety coordination during construction

Monitoring of power station operations

- ▶ Periodic inspections to ensure reliable continuous operation

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