



Geothermal Power Plants

Geothermal power plants utilize heat energy from the Earth to produce electricity and sometimes for combined heat and power (CHP). They are cost effective, reliable and environmentally friendly. And, though previously restricted to certain geographic locations, technological advances in drilling and plant design allow for the development of what were once thought to be non-viable resources. As a result, more and more public and private entities are looking into geothermal power as part of their strategy to mitigate global warming while still meeting growing energy demands.

Mannvit Engineering of Iceland is a world leader in geothermal power plants with decades of experience in Iceland and abroad. The company designs and builds geothermal power plants tailored to match specific resource conditions which, in the most general sense, can be categorized by their thermodynamic potential, or enthalpy.

The specific geothermal power plant configurations must match the heat resource to maximize its potential but also must take into account a variety of other criteria including local conditions and requirements as well as the needs of a community. The geothermal engineers, geoscientists and other company specialists at Mannvit have successfully tackled numerous complex challenges involving geothermal heat utilization all over the world.





MANNVIT

ENGINEERING

Mannvit services:

- Process Design
- Cogeneration of Electricity & Hot Water
- Feasibility Studies & Cost Estimations
- Conceptual Design
- Site Layout & Planning
- Overall Plant Design
- Equipment Specifications
- Bid Preparation & Tender Evaluation
- Site Supervision
- Commissioning
- Acceptance Test
- Training of Operators
- Monitoring at Well Head
- Environmental Monitoring

Within Iceland, Mannvit has been involved in all the geothermal power plants built since the early 1970s. The electricity from these plants provides approximately 27% of the country's electrical needs, whereas hot water from these plants heats over 90% of the homes and buildings.



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Iceland Geothermal Power Plants:

- Svartsengi Combined Heat and Power (CHP) Geothermal Power Plant
- Bjarnaflag Geothermal Power Plant
- Nesjavellir (CHP) Geothermal Power Plant
- Krafla Geothermal Power Plant
- Reykjanes Geothermal Power Plant
- Hellisheidi (CHP) Geothermal Power Plant
- Husavik Kalina Cycle Geothermal Power Plant

Outside of Iceland the company is applying their experience and expertise to projects in Europe and South America based largely on their innovations in Kalina technology, which allows the production of electricity from low temperature geothermal resources.

