MANNVIT
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Project example:

Kalina Power Plant

Iceland's first Kalina cycle geothermal power plant was designed and constructed by Mannvit. This project was done in collaboration with Exorka International Limited, a global sub-licensee for the Kalina power cycle technology.

The plant was installed in 1999 near the small town of Husavik, in Northern Iceland. This binary geothermal plant produces 2 MW from a geothermal brine flow of 90 kg/s at 120 °C. The plant was commissioned in mid-2000. The outgoing brine leaves the plant at 80 °C and is then used for district heating and other industrial uses.

This 2 MW plant will provide up to 80 percent of the town's electric power demand. The heat source for the plant will come from geothermal wells located 20 km south of Husavík.

The distinguishing trait of the Kalina Cycle is its working fluid of ammonia-water. The efficiency gain is achieved by the ability of this working fluid to closely parallel the temperature of the heat source (in this case – hot geothermal brine) and the heat sink (cooling water). Cost effective energy recuperation within the cycle is also possible due to the unique characteristics of the ammonia-water mixture.

Additional information:

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