Objectives
- Utilize otherwise marginal geothermal reservoirs
- Limit or eliminate cooling water consumption
- Reduce CO₂ intensity from the natural gas

The Concept:
- Use geothermal heat to create steam for “steam-injected” natural-gas turbine

Advantages
- The baseline natural gas turbine provides predictable electric revenue
- The system does not require cooling towers
- The system can use relatively low-temperature geothermal sources

Background
- Steam injection has been used for more than three decades, on more than 300 gas turbines, to provide additional power and improve efficiency
- Few studies have considered using steam generated by geothermal heat either as direct flash (clean geofluid) or indirect (clean water vaporized by geothermal heat)

Model Study - Minimum Brine Flow to Achieve 10% Drop in CO₂ Intensity