

The Geysers by the Numbers



The Geysers Geothermal Field 2016 Statistics

The Geysers – 15 Power Plants

- 75 miles north of San Francisco, California
- 12 power plants in Sonoma County (10 Calpine, 2 Northern California Power Agency)
- 3 Calpine power plants in Lake County

Calpine Geothermal Operations

- 29,000 acres (45 square miles)

Geothermal Wells

- 327 steam wells
- 52 injection wells
- Deepest well: 12,900 feet, or over two miles
- Average well depth: 8,500 feet
- Total Calpine Geysers wells drilled to date: 591
- Today's average grass-roots drilling time: 85 days (75 days drilling + 10 rig up/down)
- First exploratory well: 1920
- First modern well: 1955
- 2016 average steam production per well: 36,795 pounds per hour
- Average reservoir steam temperature: 375.4 degrees Fahrenheit
- Average flowing steam pressure: 80.7 PSIG
- Most recent steam well drilled: Prati 31, January 2017
- Most recent injection well drilled: LF-50, August 2016

Facilities

- 13 geothermal plants
- Steam pipelines: 80 miles
- Injection water lines: 69 miles
- 21kV power lines: 70 miles
- Project roads: over 167 miles

Water Injection

- Two large-scale wastewater injection projects provide approximately 11.91 million gallons daily (MGD)
 - Santa Rosa Geysers Recharge Project average: 10.70 MGD
 - Calpine Southeast Geysers Effluent Pipeline average: 1.21 MGD
 - Calpine + Northern California Power Agency: 5.33 MGD

Power Generation

- First commercial power plant: Unit 1, Startup - September 1960
- Most recent plant built: Aidlin, 1989
- 2016 average output: 634.1 net megawatts
- 2016 generation: 5,554,387 net megawatt hours
- 2016 average unit availability: 90%

Visit The Geysers

- **Visit:** The Calpine Geothermal Visitors Center in Middletown, California, Wednesdays through Saturdays from 11:30 a.m. to 5 p.m. (admission is free)
- **Tour:** Sign up for a free geothermal power plant tour led by an experienced Calpine team member by visiting www.geysers.com or calling 1-866-GEYSERS or 707-987-4270.



Calpine at The Geysers

Calpine Corporation is America's largest generator of electricity from natural gas and geothermal resources with operations in competitive power markets. Our fleet of 80 power plants in operation or under construction represents approximately 26,000 megawatts of generation capacity. Through wholesale power operations and our retail businesses Calpine Energy Solutions (formerly Noble Americas Energy Solutions) and Champion Energy, we serve customers in 25 states, Canada and Mexico. Our clean, efficient, modern and flexible fleet uses advanced technologies to generate power in a low-carbon and environmentally responsible manner. We are uniquely positioned to benefit from the secular trends affecting our industry, including the abundant and affordable supply of clean natural gas, environmental regulation, aging power generation infrastructure and the increasing need for dispatchable power plants to successfully integrate intermittent renewables into the grid. Please visit www.calpine.com to learn more about why Calpine is a generation ahead – today.

www.calpine.com

www.geysers.com