Nevada Geothermal Power Inc.

Harnessing clean energy from the desert

BY SARAH LOZANOVA

DESPITE SIGNIFICANT RESEARCH ON GEOthermal energy in the Western United States during the 1970s and early 1980s, there was little development in the years that followed. So Nevada Geothermal Power Inc. (NGP) certainly proved to be ahead of the pack when it obtained 100-percent leasehold interest in four properties while geothermal development was more or less stagnant. "We acquired our properties in the early 2000s," explains Brian Fairbank, CEO and president. "And at the time, we were one of the few companies working on projects in Nevada. There had been a lot of legacy work done in the '70s and '80s, and part of our criteria for acquisition was to look at projects that already had exploration work done and were close to transmission lines."

The subsequent land rush has shaped the industry in recent years and driven up land prices. "There's a lot of competition now for properties," Fairbanks says. "When we first started, there wasn't much going on with geothermal because there was a lot of cheap energy around. That changed in the early 2000s, with the California energy crisis." Fairbank has created an international team of industry experts to develop the geothermal fields. The company now harvests the power from the Blue Mountain geothermal field in northern Nevada, a property ripe with opportunity—the geothermal resource is near the surface, has easy road access, and is located 21 miles from the transmission grid.

NGP has completed its flagship project at Blue Mountain, named Faulkner I, costing just over $4 million per megawatt. It was engineered, procured, and constructed by Ormat Technologies Inc. and supplies power for approximately 40,000 homes. "The power plant will produce 49.5 megawatts and deliver 39.5 megawatts to the power grid, as 10 megawatts will be used to power the plant," Fairbank explains. It's also an ideal launching pad for developing further projects. "We're going to be a high-growth company," Fairbank says. "We have the expertise to develop new projects and grow. The Faulkner I plant will allow us a strong base to develop new projects. We will have cash flow, so we will have a sustainable company that is making a profit."

The NV Energy transmission hookup in Mill City, NV—21 miles from NGP's Faulkner I geothermal power plant at Blue Mountain.

The company plans to spend between $8 and $15 million to assess the basic geothermal feasibility of its sites—Pumpernickel, in Humboldt County, Nevada; Black Warrior, in Washoe and Churchill Counties, Nevada; and Crump Geyser, in Lake County, Oregon. "Our next step is to drill a production test well at Pumpernickel. The US Depart-

AT A GLANCE

HEADQUARTERS:
VANCOUVER, BC

EMPLOYEES:
36

FOUNDED:
1995

AREA OF SPECIALTY:
GEOTHERMAL ENERGY PROJECT DEVELOPER AND OPERATOR

Faulkner I Geothermal Power Plant at Blue Mountain

LOCATION: HUMBOLDT COUNTY, NV

COMPLETED: OCTOBER 2009

CAPACITY: 49.5 MEGAWATT GROSS

PROJECT COST: $210 MILLION

PROJECTED GROSS REVENUE: $26 MILLION

PROPERTY SIZE: 10,984 ACRES

NUMBER OF EMPLOYEES NEEDED TO RUN PLANT: 14

Aerial shot of NGP's Blue Mountain 'Faulkner 1' geothermal power plant under construction (40% complete) and multi-well flow test in the background.

ment of Energy may provide 50 percent of the funds if we are successful." Fairbanks says. Although Faulkner I took five years to develop, subsequent geothermal plants may require only three years. Construction requires one year, with feasibility and permitting occupying the remainder of the time. Fairbanks hopes to bring another project online by the end of 2012.

Upcoming projects may also benefit from stimulus funding. "There's about $400 million that is available for geothermal projects and technology in the form of grants and loan guarantees," Fairbank explains. "About $100 million is available for cost-shared programs for companies that are working on developing geothermal systems that use hydrothermal technology. For complete geothermal power plants, there are investment tax credits and cash grants of 30 percent of eligible costs, which is significant. Tax credits require investors to obtain, while the cash grants come directly from the government."

These incentives are likely to fuel further growth in the industry, regardless of the economic crisis. In fact, Fairbank is confident that geothermal will grow considerably in upcoming years. "There are currently around 3,000 megawatts installed in the United States," he says. "I estimate it will at least double in the next 5 to 10 years." EIQ

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> *Brian Fairbank, CEO & President*