

HOT SPOT

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In recent years, Reno has become a hub for green energy development and recently played host to the Geothermal Energy Association National Summit 2015, which included a panel discussion titled “Local Economic Benefits of Geothermal Development.”

Rachel Dahl, former Fallon city councilwoman and now executive director of the Churchill Economic Development Authority, attended her first National Geothermal Summit last year and returned this year as a speaker and panelist. “I really enjoy the conference because it’s one day of intensive information and you get to meet all the industry people. The association does a really good job of presenting a big picture view of the industry.”

She presented the case study of geothermal development in Churchill County, which gives it some serious bragging rights, not about one big win for economic development, but a consistent series of smaller wins that add up to generating enough green energy to offset all of the county’s needs.

Geothermal projects at Stillwater, Salt Wells, Soda Lake, Brady’s and Desert Peak feed enough power into the grid to allow Churchill to lay a claim on being 100 percent green. “The panel discussion showed me that we’ve been doing things right. We’re generating a lot of green energy here and now.

“We’ve been chosen as one of five sites for the really exciting FORGE Project.”

Governor Sandoval announced the FORGE project in April. The DOE’s Frontier Observatory for Research in Geothermal Energy brings millions in federal funds to accelerate breakthroughs in enhanced geothermal techniques, according to Paul Thomsen, the director of the Governor’s Office on Energy. “What Nevada has realized is that we have these incredible geothermal resources that could reduce our state’s demand on imported petroleum or gas that we don’t have,” said Thomsen. “FORGE will build on recent successes that have attracted attention to Nevada’s green energy (potential). Churchill County produces enough electricity to offset the entire load of the city of Fallon. Most of those power plants are under what’s called a ‘power purchase agreement’. They sell the power generated by those renewable resources to NV Energy for use statewide.”

So, what is the potential for larger communities like Reno and Sparks? Thomsen said “It’s incredibly feasible that larger cities can also take advantages. In Reno, Ormat produces enough power today to provide for the entire residential load of the city.

Because it produces power 24/7, it (geothermal) can absolutely support the entire load for many municipalities.”

Josh Nordquist is the business development director of Ormat, the largest geothermal developer in the state. It provides approximately 200MW of geothermal power to the grid, or enough power to provide for 200,000 homes statewide. “Most people probably don’t even know that we have this power plant within our city limits that powers most, if not all, of the homes in the community and that we are the only city in the nation that has that. And its 100 percent clean renewable energy.”

The geothermal benefits of the Truckee Meadows also work on an even more local scale. In the early ’80s, Peppermill Resort Hotel ownership learned that the casino property in Reno sits atop what is known as the Moana Aquifer, a water resource heated naturally underground. In stages, the business invested almost \$10 million in development and now, according to Executive Facilities Manager Dean Parker, “that energy source is heating all of the domestic and mechanical systems on this campus and we recouped our investment in about three years and one month. We call it liquid gold because it paid for itself so quickly.” Other local businesses can potentially do the same.

According to the GOE’s Thomsen, the next steps are exciting and full of additional potential, not only due to the FORGE Project, but also because the state is attracting even more corporate investment. “The impacts are huge... they not only have to bid for the land, they also pay royalties that generate millions of dollars for local economies. Add good-paying jobs in construction and then, operations and maintenance investment, and you have incredible benefits for cities like Reno, Elko and others.

“The mission of the Office on Energy is to knock down the barriers and provide incentives to get more and more developers to invest in projects throughout Nevada.”

But challenges remain.

Thomsen advises that, “Geothermal has to do a really good job of justifying why it’s a little more expensive, and it’s a little more expensive because it produces power around the clock, every day of the year whether or not it’s windy or cloudy outside and that cost needs to be translated into value. At the end of the year it (geothermal) produces a lot more megawatt hours than a variable energy resource.”

States like California that have invested heavily in solar, are now having flexibility concerns because there are times of day when the sun goes offline. “With EPA rules limiting power plant emissions and the need for flexible replacement resources, I’m very optimistic that we’re going to start seeing contracts for geothermal energy being exported out of state and that’s a win-win for Nevada in the huge capital investment and the taxes paid,” said Thomsen. “It’s a little-known fact that geothermal is one of our most taxed industries. It pays the modified business tax, royalties, sales and use taxes, property taxes and, because it’s a mineral, the net proceeds and mines tax, so it has a huge impact on our economy.”

The Geothermal Association returns to our hot spot Sept, 20-23 for the Geothermal Energy Expo and the association’s annual meeting.

For a tour of the geothermal systems at the Peppermill, contact Dean Parker at (775) 826-2121.

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