

Oak Creek Energy

The ALTA experiences

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With hundreds of turbines sprouting up across the country, it's becoming increasingly clear that proponents of wind energy haven't been full of hot air. As technology improves and increases the potential for wind energy to supplement or even replace traditional fossil fuel-based power, the sight of a towering wind turbine has become more common. One place where that's especially true is in Kern County, Calif., home to the Tehachapi Pass Wind Farm.

Tehachapi Pass has been providing wind-based energy to Southern California Edison (SCE) since the 1980s and continues to grow to this day. Currently, the farm is in the middle of the \$1.8 billion first phase of the Tehachapi Renewable Transmission Project, which eventually will increase the farm's capacity to more than 4,500 megawatts (MW). Leading the way on this project just as it did in the early days of the farm's development is Oak Creek Energy, one of the pioneers in developing wind farms in the state.

Oak Creek Energy's work on the Tehachapi Renewable Transmission Project is significant in a number of ways. At 4,500 MW of total capacity, it will be the largest renewable energy transmission project in the United States. Additionally, the 1,550-MW power purchase agreement Oak Creek Energy signed with SCE through a subsidiary – which initiated the transmission project – is the largest renewable energy contract ever signed by a utility in the United States.

A Pivotal Role

Oak Creek Energy's stake in the Tehachapi Pass Wind Farm is as old as the farm itself, explains Hal Romanowitz, president and chief technical officer. "Oak Creek for quite a time specialized on Tehachapi and we were the originating developer," he says.

The company was one of the first to build wind turbines in the Tehachapi Pass area in 1981, recognizing the enormous potential of the 15-mile radius where the Mojave Desert meets mountain ranges. The low mountain pass works as a natural funnel where hot desert air is constantly pulling colder ocean air underneath it.

"It's a phenomenal wind resource," Romanowitz says. As one of the first to develop wind farms in the Tehachapi Pass, Oak Creek was one of the pioneers in developing the concept of the wind farm as it is known today.

"The concept of wind farms was developed and made into a commercial success in California and now has been adopted worldwide as the way to create wind energy," Romanowitz says.

Oak Creek Energy also played a vital role in keeping the wind energy sector afloat during some lean times through its commitment to the Tehachapi Pass Wind Farm. In

the early 1980s, the industry primarily was driven by tax credits, but toward the end of the decade Congress reduced the incentives available, stalling development of new technology. At the same time, the early turbines were not as reliable as modern models and broke down frequently. The original manufacturers closed their doors as the incentives dried up, leaving Oak Creek Energy in the position of keeping the flame.

“Oak Creek played a pivotal role in helping to make that early technology reliable,” Romanowitz says. This included looking to advancements made in Europe, where wind energy development continued. The company made its own adjustments to the European technology to help the turbines withstand the much-stronger California winds. Romanowitz notes the company worked in close concert with SCE to make improvements to the Tehachapi Pass Wind Farm.

“We played a significant role in making the grid operate better and able to get more energy out because of the things that we worked with in a cooperative environment with the utility,” he says. “With what we did and what others did, wind energy turned out to be a very viable and very economical form of energy.”

Building the Future

Romanowitz says Oak Creek Energy’s work on the Tehachapi Renewable Transmission Project, along with the work of other developers on the wind farm as a whole, will only serve to enhance the profile of wind energy nationwide. “It’s going to be a beautiful project,” he says. “It’s already a beautiful project and it will continue to be a beautiful project.”

The impact of the Tehachapi Pass Wind Farm also is having repercussions in the renewable energy sector beyond wind farms, he adds. The project’s successful transmission is inspiring solar developers to invest more of their resources in solar projects to replace traditional energy sources.

In terms of the future of Oak Creek Energy, Romanowitz says the outlook is good. A partner eventually will take over operations of the Tehachapi Pass Wind Farm for the long term, and the company eventually will begin development on other wind farm projects.

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