



**“DMI delivers,
in every sense of the word.
They build quality towers,
and working with them
eliminates a lot of headaches.”**

Brad Adams
Director of Project Development
Whitewater Energy Corp.

President
Whitewater Wind Energy, Inc.

DMI Engineers Less Expensive Wind Tower Solution for Whitewater Energy

Company Profile

Whitewater Energy Corp., Torrance, Calif., has been developing and managing wind energy projects in Southern California since 1982. Whitewater Energy's sister company, San Gorgonio Farms, Inc., manages its projects and is one of the founders of the California Wind Energy Association. Whitewater Energy has developed wind energy projects that are capable of generating over 145 megawatts of electricity. San Gorgonio Farms currently manages two of its projects – Whitewater Hill near Whitewater, Calif., and Karen Avenue in North Palm Springs, Calif. – with 224 turbines capable of generating 43 megawatts. The company helps meet California's power needs with 100-130 million kilowatts of power per year.

Situation

In 2003, Whitewater was planning to add three 1.5 megawatt turbines to its Karen Avenue facility. The towers needed to support megawatt-class turbines with rotors a little more than 231 feet in diameter.

Critical Issues

The maximum height of structures allowed within North Palm Springs city limits is 300 feet. A standard tower height is 65 meters, or 214.5 feet. When added to rotor diameter, turbine height and base height, the towers would be too tall. Whitewater had re-engineered a tower design for the lower height, and included those specifications when it let bids for the project. In addition, Whitewater set an aggressive deadline for project completion.

Big-Time Delivery

When DMI engineers reviewed the specs, they realized there was a better way that would save both material consumption and production hours. Instead of using the weld seam locations as designed, the DMI change called for fewer cans and alternative weld seam locations. The new layout not only met the height restriction, but also significantly cut down on waste material and welding time. DMI's flexible equipment and facility made production with the new design possible. DMI also promised an eight-week delivery time, much more aggressive than any of its competitors.

"DMI was not the lowest bidder, but they could provide us the towers the soonest," said Brad Adams, Whitewater's director of project development. "They also saved us money by engineering the tower further. That wouldn't have occurred if they had followed the original specifications."

DMI delivered the towers within eight weeks, as promised. The only hiccup in the process, which came in the 11th hour, involved internal wiring from a third-party contractor. DMI quickly stepped up to the plate and found an alternative supply option to keep the project on schedule, all at no cost to Whitewater.

Results

Whitewater had the towers installed on time and was able to meet its power-generation obligations. The experience was so positive that the company now includes DMI on its bidder list for new projects.

"The quality of DMI's towers is excellent, and the fact that they were delivered on time was very important, due to the costs associated with construction delays and lost revenue," said Adams. "In the future, even if DMI's bid comes in slightly higher, we might go with them anyway."



420 East Main Ave., West Fargo, ND 58078
701.282.6959 www.dmiindustries.com

AN  OTTERTAIL COMPANY

DMI
INDUSTRIES

discover manufacturing innovation®