WIND ENERGY SERVICES CO.

By Russ Willcutt

With a parent company known as a pioneer in manufacturing blades and other wind components, the maintenance services provided by WES are unsurpassed.

FOR THE PAST 24 YEARS Molded Fiber Glass Companies (MFG) has been manufacturing blades, nacelles, and spinners for the North American wind industry, specializing in composite structures for more than six decades in all. With so many years of accumulated knowledge, it was a natural decision for the company to launch Wind Energy Services (WES) in 2007 to offer a full range of blade repair, inspection, and maintenance services to wind farm owner/operators.

"MFG has 13 factories, and five of them manufacture components for wind energy," according to Gary Kanaby, director of sales for WES. "We've been inspecting and maintaining the blades we manufacture for years, so WES was a natural offshoot of that experience, offering these specialized skills onsite for any make of blade as a resource to owner/operators."

In describing the company's capabilities, Kanaby says WES takes a "cradle to grave" approach, beginning with inspections as components reach the construction site. Various repairs are performed onsite as work progresses or when damage occurs, we provide ongoing preventative measures during and after the warranty phase and even end of life disposal. "We want to be involved in the entire lifecycle of the blades," he says, "all the way from monitoring their safe delivery, to ensuring their productivity during active service, to taking them down when the turbines are retired."

A unique benefit for customers derived from the relationship between MFG and WES is their ability to service blades and other composite components that can't be repaired onsite in three of MFG's manufacturing facilities—Aberdeen, South Dakota; Gainesville, Texas; and Adelanto, California. These factories are fully equipped with overhead cranes, materials, and the skilled labor needed to restore the parts to "like-new" condition.

Preventative maintenance can help avoid a repair scenario, however. "We have been trained by Mankiewicz on how to use their blade coatings properly," Kanaby says, "and also by 3M on how to apply the tape they've developed to protect the leading edge of the blade. The reason that's so important is because when that edge begins to wear, the blade becomes less productive, which affects the whole turbine by throwing everything off balance. Evidence has proven that when we're able to conduct this type of preventative maintenance early on, there is considerably less downtime due to emergency repairs. European operators have long understood the value of this type of approach, and it's finally starting to catch on in North America as well."

Another service WES offers is dynamic blade balancing, which involves both aerodynamic and mass balancing. During tower erection these tests ensure that the blades are balanced and working at maximum efficiency. Down the road the tests check for continued integrity, as water and even oil can collect in the blades and upset the balance, leading to a host of problems within the nacelle.

WES has recently begun offering replacement spare parts for older model turbines. Operators in need of a blade, nacelle, or nose cone due to a devastating weather event or normal wear frequently discover that the OEM no longer carries what they need, or may no longer be in business. To answer this need WES can supply newly manufactured spares through MFG made from tooling generated from the customer's part. This process is fast and does not injure the original part.

Under the heading of expert services, WES can address lightning damage, tip repairs and replacement, shipping- and construction-related damage, splitting and erosion of the trailing and leading edge, structural repairs, gelcoat and paint, blade balancing, and bolt tensioning and replacement. Inspection services include high-power photography, physical inspections from a platform or crane, lightning system continuity checks, and issuing third-party inspection reports. Other services include tower inspection and cleaning, as well as repairs to the nacelle and spinner. Scheduled maintenance packages are also available, as are end of warranty inspection services.

WES can deploy teams rapidly from three strategically located depots to locations throughout the continental United States. The company currently has projects underway in Maine, California, Texas, Colorado, Minnesota, Iowa, and elsewhere. MFG and WES support the industry through active involvement in standards development through the American Wind Energy Association (AWEA).

According to Kanaby, what sets WES apart is its long experience manufacturing blades and other components through MFG, as well as its engineering capabilities. "We are known for being able to handle the most difficult repair jobs," he says. "We may not be the largest service company, but we provide the best services, and that's why we're growing."

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