

Patriot Industrial Solutions offers bolting equipment and climb-assist and emergency-descent equipment, as well as custom-engineered solutions for the wind-energy industry.

By KENNETH CARTER **▼** Wind Systems editor

ind farms, and the dozens of turbines that comprise them, are made up of thousands of parts. And every one of those parts must be monitored and maintained to ensure the best efficiency for each asset.

That's where Patriot Industrial Solutions comes in.

For more than seven years, Patriot Industrial has offered products and services for the wind-energy industry that include emergency-descent equipment, climb-assist equipment, and hydraulic torque/tension controlled bolting equipment, according to Dan Erickson, president and founder of Patriot Industrial.

"In addition to sales for all of that, we also service and rent most of the products we offer," he said. "I can build custom tools, and we also offer ultrasonic bolt load testing equipment. We have a wide array of core services for the O&M side of the business."

LONG HISTORY WITH WIND

Erickson said he has been involved in the technical and industrial sales to the wind energy, as well as other industries, for many years before starting Patriot Industrial in 2014 where he and his company have focused on controlled bolting, as well as through engineering and industrial sales jobs.

Before starting Patriot Industrial, Erickson was selling to wind while an industrial rep for Snap-on and for HYTORC.

"I've been bringing solutions to wind since 2005 with custom kits and custom tooling," he said. "Later, I migrated into a total focus on controlled bolting at the end of 2010."

Now, Patriot Industrial has divided its focus on wind to about 80/20, expanding its product lines to address other needs in the wind and renewable industries, according to Frickson

"I've always been involved with wind, but over the past four to five years, I have really changed my company's focus into wind." he said.

THE BEST SOLUTIONS FOR ANY APPLICATION

As the wind industry has expanded over the years, windfarm owner-operators have branched out to rely more on third-party O&M companies, and Erickson pointed out that is a relationship that serves his company well.

"Patriot is not owned by any of the vendors whom I represent and, therefore, can provide the best solution to the application," he said. "And that is my M.O. — I am able to have Patriot focused on customers' specific needs rather than the inverse."

A large part of Patriot Industrial's contribution to wind is a commitment to lighter-weight equipment and climb assist and emergency descent systems, according to Erickson. "Some of that can be used for other towers; emergency descent equipment can be used on cell towers, TV towers, smokestacks—that type thing—but they are used heavily in wind," he said. "Every crew that goes up a tower should have an emergency-descent system with them. And the industry is moving toward a multi-person emergency-descent system so that, should one individual become incapacitated, that emergency-descent system can support an additional team member to keep that injured individual viable and assist them down. There's a shift from the single person emergency descent kits to a multi-person descent kit. They're both in existence, but there's a movement to those multi-person requirements."

WIND-SPECIFIC EQUIPMENT

The industry-leading TRACTEL climb-assist equipment Patriot Industrial offers is used almost entirely by the wind industry, according to Erickson.

"It is a rugged equipment solution to enhance tower uptime and employee satisfaction," he said. "And it just reduces the wear-and-tear on technicians having to climb all day, every day. Instead of two towers, they may be able to climb four, and they're not exhausted when they're up there—never mind if it's minus-20 degrees Fahrenheit or 105 degrees Fahrenheit. The quality of work improves, quality of attitude improves, and tower up-time improves."

TAKING ON CHALLENGES

Even though Patriot Industrial offers a wide variety of O&M products and services, Erickson said he approaches each customer request with a resolve to solve the challenges presented to him.

"I try and educate," he said. "I have to educate myself about the application first with thorough questions, and, if necessary, I'll go onsite and take a look at what's happening and then educate the customer on their options as if I were them. I want to actually educate them as to what their decision criteria needs to be, so it can be effective for the total life expectancy and total cost of ownership for whatever they're purchasing."

Patriot Industrial also has the ability to move quickly on tooling and custom design, according to Erickson.

"We can manufacture to customer needs and specifications for many products, including tools, sockets, harnesses and more," he said. "We have the ability to move quickly and have the skills and avenues to address many applications."

APPROVED VENDOR

Patriot Industrial is an approved vendor for many of the major OEMs in the industry, but the company also offers



A large part of Patriot Industrial's contribution to wind is a commitment to lighter-weight equipment and climb assist and emergency descent systems. (Courtesy: Patriot Industrial)

its products and services to wind farms directly, no matter where they may be located, according to Erickson.

"We're not geographically constrained, so I've got projects for third-party providers and for specific wind farms in Nebraska, California, New Mexico, Colorado, Oklahoma, Kansas, and more," he said. "And I have been on site in North Dakota; I've been on site in Iowa, as well as all the other states that I've mentioned."

And Erickson said he is excited about the prospects of U.S. offshore projects taking off.

"I am looking forward to offshore opportunities," he said. "That's an entire new ball of wax for renewables and particularly wind, and I am glad to see it happening. Renewables are a critical part of our energy infrastructure as we move forward, and offshore just opens the horizon for wind, because the geographical constraints aren't as tight, and you don't have size constraints. You can go to bigger turbines for greater economies of scale on output. I think offshore is going to be fantastic for the entire industry."

CENTRALLY LOCATED

Patriot Industrial is centrally located in the U.S., which gives the company an advantage to respond quickly to the needs of owner-operators across the country, according to Erickson.



The industry-leading TRACTEL climb-assist equipment Patriot Industrial offers is used almost entirely by the wind industry, according to Patriot Industrial President Dan Erickson. (Courtesy: Patriot Industrial)

"We're centrally located," he said. "The highest wind speeds in the United States resemble an inverted kidney bean. So, if you look at the highest average wind speeds, they're in southeast Colorado, a good chunk of Nebraska, almost all of Kansas, the western three-quarters of Oklahoma, and north and west Texas into eastern New Mexico. We are right in the core of land-based wind central."

Erickson said he has seen a number of beneficial changes within the industry over the last 30 years. One major change is how the life expectancies of components have increased tremendously.

"The industry is sustainable on its own without propups such as tax credits and other things," he said. "And the demand for clean energy is going to continue to grow, so the services required by this industry will continue to grow. And my plans are to be heavily involved in that as it grows."

To that end, Patriot Industrial has multiple vendors for bolting equipment and tension equipment, selling directly to big OEMs such as Siemens Gamesa, GE, Vestas, and more, according to Erickson.

"We're able to be competitive through skill level, product offering, and solution engineering, offering a quick response while staying competitive price wise," he said. \noinder