

COMPANY PROFILE

BARON USA, INC.

By Stephen Sisk



Tennessee-based company offers transformer dryout equipment that mitigates highly dangerous combustible gas accumulation within wind farm pad transformers.

TAKE I-40 EASTBOUND OUT OF NASHVILLE, and in a shade over an hour, you'll run up on Cookeville, Tennessee — home to Baron USA, Inc.

No, they're not the pizza guys, fighter pilots, or even feudal lords. They're a small, veteran-owned company of about 40 total employees (currently a pretty high roster for them), that specializes in transformer dryout and the purification of oil in electrical equipment.

Following a career at S.F. Bowser & Company (acquired in 1969 by the Keene Corporation), Les Baranowski kept getting inquiries by his former customers about their needs for equipment similar to what they were used to getting from his former company. The volume of requests kept coming until Les finally decided to get a loan and open up his own business.

Nearly four decades later, Les' son Derek now owns Baron USA, where he also serves as the company's president.

"(Baron USA) was founded in 1975 by my father," Derek Baranowski said. "The company started building oil processing systems for Westinghouse Electric, and some of the old names that are no longer around or have merged into some of the bigger companies. We developed over the years from a small mom-and-pop operation to selling around \$10 million a year, and we sell worldwide."

Despite that kind of growth, it's the legacy of meeting customers' specific, essential needs that drives the younger Baranowski's company today.

There's no pick-and-choose, catalog-style purchase approach here. Instead, Baranowski and his team of technical consultants work directly with the customer, identifying specific needs, addressing problems, and coming up with smart, custom solutions.

"Our mission is to provide innovative solutions to our customers' problems," Baranowski said. "We really pride ourselves on being able to come up with solutions to solve people's pressing problems."

Those solutions fall primarily into two categories: Oil purification systems and transformer dryout/processing systems.

"We build a lot of systems that process transformer oil — either new or old," Baranowski said. "We also have systems that go into the field and do transformer dryouts and fills for new installations, as well as processing of transformers that are already online and in service. That's 90 percent of our business. The other part is building specialized equipment for OEMs. We're the only manufacturer of vapor phase systems in North America. We compete against companies in Germany and Switzerland." Baron makes their products available

for sale to customers, but also has units available for customers to rent.

Although most of the company's customer base is from the electrical equipment manufacturing and electric utility industries, within the last few years, the company recognized a specific need servicing the pad transformers of wind farms. After these transformers had been in operation for some time, a potentially hazardous condition arose — the buildup of combustible gases within the transformers.

"In the wind farm industry, they have a unique problem with their power transmission from the turbine out to the grid," Baranowski said. "Because of the cycling and the surging, those transformers that they're using are subject to a lot of gassing — generation of combustible gases."

If the collection of those gases goes unmonitored, he said, the gas levels rise to a point where it's very risky to keep those transformers running.

"As these levels of gases build up — acetylene and hydrogen — they fill a gas space in the top of the transformer," Baranowski said. "If there would be any short or spark, the gas would ignite and cause a catastrophic explosion."

Baron's Wind Farm Series transformer dryout system can mitigate those gas levels as they are generated within the oil, allowing for safe, continuous operation.

"We have a system that goes on and pulls the oil out of the transformer, removes those combustible gases, and puts the oil back in the transformer," Baranowski said. "So the transformer is always operating with a gas level below a hazardous range."

The Wind Farm Series product is relatively new, and — aligned with the company's mission — came about as a result of a wind farm operator bringing the problem to Baron's attention and working in tandem toward a solution. Currently, wind farms that use Baron's transformer dryout system include the Desert Sky Wind Farm and White Creek Wind Farm. A rental unit is making its way through several of the Shell wind farms in Colorado.

Baranowski expects that the Wind Farm Series segment of his company will grow as wind farms begin to age and operators become more aware of the problem of the combustible gases created by the transformers.

"It's something that doesn't happen right away," he said. "But it's something that is going to happen down the road. It's pretty obvious that, despite all the lack of enthusiasm and loss of government support, the wind farm industry is here to stay and is a vital contribution to our nation's energy program. If it keeps growing, we see big things for us on the horizon as well." 🌿