

CRAIN'S CLEVELAND BUSINESS

Wind turbines remain green after death thanks to upcycler Canvus

By Dan Shingler

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Canvus' Brian Donahue, left, and Parker Kowalski in the company's showroom in Avon.

A Northeast Ohio company is trying to solve one of the big challenges facing renewable energy: what to do with the waste it creates.

A lot of people like wind energy because of environmental reasons. But few consider what happens to the giant turbine blades that catch the wind to produce that energy.

They last for years, sometimes decades, but eventually bird strikes, the weather and other sources of damage take their toll, or they are replaced with newer, more efficient designs.

They've considered such things at Canvus, a Rocky River company with its major production facility in Avon, where it employs about 30 people.

"We make products out of retired wind-turbine blades," said Brian Donahue, vice president of corporate affairs at Canvus.

It's a task that's easier said than done, though.

When turbine blades are replaced, what's left are giant fiberglass-covered blades with balsa and plywood frames, some of them far too long to fit on a regular tractor-trailer.

Canvus uses them to create benches, tables, fountains, artistic-activity centers and architectural dividers. You might have seen some of their benches and tables at the Great Lakes Science Center or at the Louis Stokes Cleveland VA Medical Center. Soon they'll be in Cleveland's Willard Park, Donahue said.

It's not as easy as designing a piece of furniture and then cutting parts from the turbine blades to fit. Far from it. Those blades are permanently fixed in their shapes, which seldom have a flat surface, said Donahue and Parker Kowalski, managing director of brand at Canvus.

Fortunately, a lot of those shapes are usable and lend themselves to Canvus' purposes – or, at least Canvus has designed products that make them look like seamless components. In some cases, such as picnic tables mounted on half-cylinders, they even allow room for wheelchairs and enable the company to make all ADA-compliant products.

It's not just wind blades, either. Seating surfaces and tabletops are made from recycled plastics that look and feel like wood. Surfaces for standing or for kids to play on are covered with soft, recycled rubber.

Parker, whose father, Alex Kowalski, is also a co-owner, came up with the idea, along with Canvus designer and senior director of brand Seth Whitney.

Parker Kowalski is 23, and Whitney is 24, so, Kowalski said, like most young people they think about the future a lot, sometimes worry, and often think about things they can do to make it better. Making wind energy more sustainable by upcycling old turbine blades just made sense, he said.

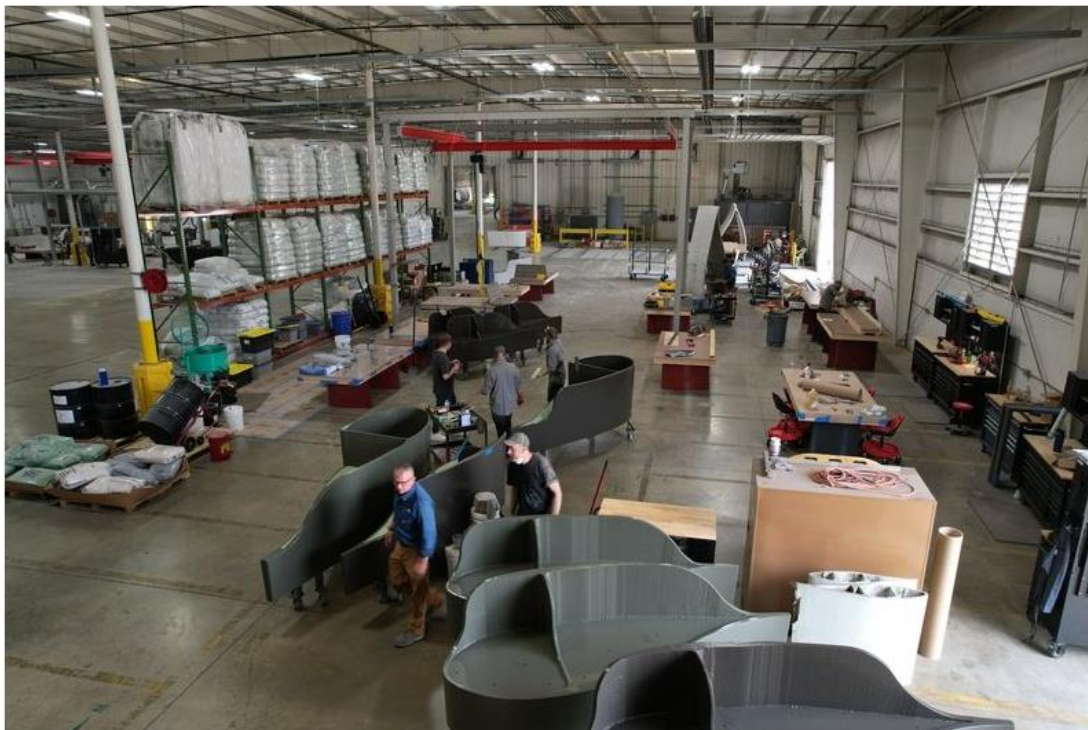
"I'm a dreamer with a great team around me," Kowalski said.

They've also come up with some creative ways to market and sell the outdoor furniture they make, nearly all of which goes into public spaces.

They sell benches, partly, through donors who buy them for parks or other outdoor places associated with lost loved ones. Each bench includes a plaque with a QR code that links to information about the person being honored.

They also have developed outdoor furniture that can be painted. Well, they're all painted, of course, but Kowalski is especially excited about what Canvus calls its PAR program, which stands for "primed and ready."

That program brings in artists, all of them from the Cleveland area so far, to paint the furniture with custom murals. Plans for an erasable surface are in the works for kids to use, Kowalski said.



Products near completion at Canvus' plant in Avon.

Contributed photo

For its paints and coatings, Canvus found a partner in PPG Industries, which provides special paints engineered to last for years in harsh marine environments, said PPG Cleveland regional manager Jake Sabo.

"It is truly impressive," Sabo said. "They approached us with this idea, and at the time it was just an idea: 'If we were to refurbish wind turbine blades and turn them into

benches, tables and all this other stuff, what do we coat them with?' We were like, 'OK this is unique,' because no one had tried this."

It also dovetailed with PPG's own goals for sustainability and environmentalism, Sabo said, and the company thought it had exactly the products Canvus would need.

"We ran some tests and landed on a product that we use on roller coasters, ships – anything that really needs to stand the test of time," Sabo said. "It's one of our protective marine products called PSX."

That's what Canvus uses today for its base coatings, while using other PPG coatings for artwork, Kowalski said.

The coatings can last decades outside in the wind, rain, snow and sun, without losing their color, he and Sabo promise.

For Canvus, that's critical. These benches and tables aren't cheap, even by the standards of outdoor infrastructure, and cost about \$5,500 on average, or about 40% more than traditional tables and benches, Donahue said.

But, he and Kowalski noted they also come with 20-year warranties.

It's still early days for Canvus. The company declined to say if it's become profitable yet, but few startups do in their first year, or even few years if they have a lot of capital costs. Judging by the array of sophisticated cutting equipment and other machines used to handle and fabricate its products, and its 110,000 square-foot facility on Moore Road in Avon, starting Canvus took a substantial investment.

But the company is growing as expected, they said. As they become better known and people become even more eager to embrace sustainable materials, Donahue and Kowalski expect to reap the rewards in growth.

One thing they'll likely not be short on is raw materials though.

"There are 5,000 to 8,000 blades that come down every year," Donahue said. "There will be more blades than we could ever take, so we're not worried about that."



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Wind turbine sections, cut at Canvus' Avon production facility before they will be turned into outdoor benches, tables and other furnishings.