

# Electric boats make waves without the noise

More powerful engines also odorless, smokeless

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ASSOCIATED PRESS

The auto industry has raced ahead on an electric wave with more manufacturers joining the race seemingly every day.

The boating industry has sputtered far behind, bogged down by low-horsepower engines and batteries that take up nearly half the boat.

That's in the process of changing. Bolstered by new technology, electric boats are now faster, have smaller batteries with longer ranges and are still zero emission.

"Electric boats used to be good for just cruising around," said Alex Mongeon, CEO of Montreal-based Vision Marine Technologies. "Now they have more power and last a lot longer."

Vision Marine has helped lead the charge in more powerful electric boats. Other companies riding the electric motor wave include Swedish luxury boat builder X Shore and Arc, started by former SpaceX employees.



A Vision Marine Bruce 22 boat with an E-Motion motor is capable of reaching speeds of 49 mph. JEFF HELMKAMP/LAKEEXPO VIA AP

An avid boat racer and electrician by trade, Mongeon and Vision Marine began working in 2015 on developing a more powerful yet still efficient electric outboard motor.

They created the E-Motion 180, the first electric boat engine to use lithium batteries.

The electric outboard boasts 180 horsepower and can reach speeds of 60 mph, a first in electric boating. The E-motion180, which costs about \$5,000

more than a standard internal combustion engine, can be used with any boats that use a 180 HP outboard gas engine, typically between 18 to 26 feet.

The engines can fully charge overnight and all that's needed is a 220-volt outlet — a boating version of plug and play. Maintenance is far less than ICE engines because there are fewer moving parts.

The electric engines are noiseless, odorless and smokeless, so there's no

more yelling at each other while on-board or leaving a layer of smoke in your wake.

Sales of the E-Motion 180 started in May with delivery expected later this year.

"It is so cool because nobody has gone to this comparable horsepower," said Randy Trusedale, chief operating officer of SBX Marine, a Florida-based custom boat builder and brokerage company. "You see some of the electric motors, you might get one that says it's, you know, 50 to 70 horsepower equivalent, but nobody's done what we're doing with the new 180."

Electric boating has been embraced by celebrities like Drake, Robert De Niro and Greta Thunberg, according to Vision Marine.

Many waters have been designated marine protected areas — 26% in the United States, according to the National Oceanic and Atmospheric Administration — which ban motorized boats. Many allow electric boats because they are cleaner and emit no sound.

"The only sound you'll hear is the water hitting the hull and people enjoying themselves," Mongeon said.

## CEOs

Continued from Page 1B

"We could have had a very long list," said Lisa Wright, a member of the board of the Harvard Business School Club of Wisconsin and vice president of the Wisconsin Business Leader of the Year Program.

The CEOs will be honored at an event sponsored by the Harvard Business School Club of Wisconsin and the Milwaukee Journal Sentinel. The event, which raises money for leaders of non-profit organizations to attend a program at Harvard Business School, was originally scheduled for Sept. 8, but has been postponed to a later date.

Kevin Steiner, president and CEO of West Bend Mutual Insurance Co., who was the Wisconsin Business Leader of the Year last year, also will be honored at this year's event.

The annual event was not held last year because of the pandemic.

### Thousands involved in response

Without question, the response to the pandemic was the work of tens of thousands of people in health care as well as the staff of state, county and city public health departments.

"The willingness of individuals to do whatever was needed really was remarkable," said Sherry of Ascension Wisconsin.

But the health systems would have the task of providing care to highly contagious patients while continuing to care for other patients. And they would have to do that while keeping their staff and patients safe.

That little was known about COVID-19 when the pandemic first hit was yet another complication.

The pandemic reached Wisconsin later than other parts of the country and that helped.

The chief medical officer at Froedtert Health, for instance, put together a group in February to begin preparing.

The health system even ordered additional beds that month as a precaution.

By early March, the health systems had set up their incident commands — the plans they have in place to prepare and respond to emergencies, such as natural disasters.

Then the real work began.

Ascension Wisconsin's incident command was making decisions "by the minute, by the hour and by the day," Sherry said.

Ascension Health, its parent organization, also set up a national incident command.

"We were able to really learn quickly what was happening across other markets," he said.

Froedtert Health's incident command met every single day for six to eight weeks, Jacobson said.

At the same time, the health systems moved physicians and clinics to virtual visits, or telehealth — while also moving administrative staff to working remotely — within days.

They also redeployed thousands of workers.

Advocate Aurora Health, the largest health system in Wisconsin and Illinois, reassigned more than 5,000 clinical workers to meet or prepare for surges in its emergency departments and intensive care units.

The health system developed virtual tools to assess where to place people



Heather Berglund, a registered nurse at Bellin Hospital in Green Bay, talks to a COVID-19 patient in November. Berglund worked in the medical unit during the surge in COVID-19 patients that month. COURTESY OF COREY WILSON

based on their experience, skills and training. And it developed online learning modules to prepare nurses and others for new roles.

Twice a day it held calls for its entire system to address immediate or anticipated staffing needs.

Complicating all this was their own people were coming down with COVID-19 or had to be quarantined because they had been exposed to someone who had.

### Unique levels of cooperation

Throughout the pandemic, the health systems worked together — perhaps to an unprecedented degree.

The CEOs of the health systems in southeastern Wisconsin, for instance, scheduled weekly calls. Their chief medical officers also were meeting weekly or as needed.

The leaders of four health systems in Green Bay were talking almost daily at one point, Woleske said.

They coordinated the change in the policies on visitors to their hospitals, preventing people from wondering why one health system was limiting visitors when another wasn't. They notified each other when they moved or set up new testing sites. And each day they shared how many COVID-19 patients they had.

"It was amazing the collaboration that occurred immediately among the health care CEOs," Woleske said.

At the same time, the health systems were working with cities, counties and the state as well as with the seven regional Healthcare Emergency Readiness Coalitions in the state.

Everyone did their part.

UW Health participated in two clinical trials for COVID-19 vaccines.

The health system also made its physicians, epidemiologists and other experts, who were on the faculty of the University of Wisconsin School of Medicine and Public Health, readily available to reporters to help people understand the pandemic as it evolved.

Froedtert Health's Wisconsin Diagnostic Laboratories moved quickly to expand its capacity to do COVID-19 tests, ordering additional equipment before the pandemic hit. It also put in place the ability to do COVID-19 tests that required different mixes of chemicals, so that it was not reliant on one supplier. That was all-important when supplies were scarce.

Wisconsin Diagnostic Laboratories has done roughly one in four of the CO-

VID-19 tests in the state, Jacobson said.

Ascension Wisconsin took the lead in helping staff the so-called alternative care facility, or field hospital, at State Fair Park in West Allis on the chance that hospitals would be overwhelmed by COVID-19 patients.

Sherry reached out to two retired executives from Ascension Wisconsin who agreed to oversee the field hospital.

The health systems throughout the state, though, also knew this would be a test.

"We wanted to be remembered for three things — for taking good care of our team members, our patients and our community," Skogsbergh, president and CEO of Advocate Aurora, said in an email. "We wanted to look back on Advocate Aurora Health's response and know that our system did right by those we serve."

### Large financial losses

The initial response took place as the health systems were incurring large losses.

Their revenue plummeted when they stopped doing elective procedures — which account for roughly half of all procedures done at hospitals — to conserve equipment and resources.

The temporary halt in elective procedures and the move to virtual visits, or telehealth, at clinics resulted in some health systems to reduce some employees' hours or require them to take leaves of absences while keeping benefits, such as health insurance.

Froedtert Health temporarily reduced the salaries of executives and supervisors as well as physician compensation. Bellin Health did the same.

Most of the health systems lost money in the second quarter of last year.

Money from the federal CARES Act — the economic stimulus bill in response to the pandemic — helped offset those losses and kept health systems profitable for the year.

Bellin Health and its affiliates received \$32.1 million from the CARES Act and state dollars. Froedtert Health received \$90 million. Ascension Wisconsin received \$217.6 million through the CARES Act. Advocate Aurora received \$786.7 million from the CARES Act and \$14.5 million in funding from Wisconsin and Illinois. UW Health received \$92.9 million from the CARES Act.

The pandemic made clear health systems' essential role — a shift from the focus on the steady increase and wide variation in hospital prices. But the pan-

dem also drew attention to longstanding and entrenched disparities in health care.

Froedtert Health, Ascension Wisconsin and Aurora Health Care, before the merger that created Advocate Aurora Health, have focused on expanding in suburbs rather than low-income neighborhoods in Milwaukee.

### Elective surgery pause short-lived

The halt in elective procedures was brief. It also may have been unnecessary — though that wasn't known at the time. The pandemic initially hit Wisconsin with less force, partially checked by the lockdown in the spring.

Froedtert Health, for instance, was projected to have more than 500 COVID-19 patients in the spring of 2020. The number of patients peaked at 83 at the time. The surge didn't hit until November, when it had more than 200 COVID-19 patients.

In late October, the state was on track to run out of beds in intensive care units and the nurses to staff them in as little as two weeks. The surge in the fall hit northwestern Wisconsin particularly hard.

That pattern is worrisome as the Delta variant spreads throughout the state. The number of hospitalizations already is rising and could jump when the weather gets colder and people spend more time indoors.

More than half of the state's population is vaccinated, and that will lessen the number of people who need to be hospitalized. Physicians also know more about how to treat COVID-19 patients. But the Delta variant remains a concern.

Physicians and nurses have seen thousands of people die from the disease. And providing care for patients with COVID-19, which requires regularly putting on and taking off protective gear, is exhausting.

"People are tired," said Woleske of Bellin Health. "They have been through a lot."

Other patients also will continue to need care during any surge in COVID-19 patients.

Many of the state's health systems have given bonuses to employees to thank employees for their work — though Ascension Wisconsin excluded the nurses and other workers at Ascension St. Francis Hospital who belong to a union.

They also have taken other steps to support their employees.

Froedtert Health, for instance, has continued to provide free meals at its hospital cafeterias for its employees and allows them to take a meal home, an initiative put in place because people often were working long shifts and didn't have time to shop or prepare meals.

The CEOs of the health systems — those being honored by the Harvard Business School Club of Wisconsin and those who oversee other health systems — had an important role in the state's response to the pandemic.

But the same goes for the thousands of people who provide care to patients.

The CEOs know that.

Bellin Health, which employs 5,000 people, has the motto "Team is we get things done."

"It's in our DNA. We say it all the time," Woleske said. "I learned just how true that is in this organization, and that applies all the way from my office to the front line."

"It truly was an incredible team effort" she said.