

# Nation's first hydrogen fuel cell ferry to transport commuters across San Francisco Bay in early 2020

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Creators of the nation's first hydrogen fuel cell ferry always dreamed that if they built the zero-emission vessel, commercial interest would soon follow. It didn't take long.

SW/TCH (pronounced "Switch"), a New York-based investment company, announced Wednesday—two months before the boat even touches the San Francisco Bay—that it would be the first to test the technology in commercial commuter service, beginning as early as 2020. The plan, said SW/TCH co-founder Pace Ralli, is to partner with large employers to offer a pollution-free alternative to gas-guzzling shuttles.

That means Bay Area residents will not only be the first to catch a glimpse of the vessel, called the Water-Go-Round, when it's completed this fall, but some of the region's commuters may also be among the first to experience the boat in action. First, though, there will be a three-month demonstration project where the public can learn about the technology, which has been around for decades but only recently adapted for maritime use, said Joe Pratt, chief executive and technical officer of Golden Gate Zero Emission Marine, which designed the vessel. His company secured a \$3 million grant last year from the California Air Resources Board to build the ferry with help from Alameda's Bay Ship & Yacht Co.

"It was never intended to just be a demonstration project," Pratt said. "It

was always intended to be built for long-term commercial service."

That's where SW/TCH comes in. The company was founded on the premise of investing in zero-emission technology specifically for maritime use. Once the technology is proved, Ralli said, the next step will be to build another ferry to grow the operation, potentially partnering with publicly-funded services, such as the San Francisco Bay and Golden Gate ferries. SW/TCH would build, own and operate the boats.

Because the Water-Go-Round is relatively small, holding only 84 people compared to the San Francisco Bay Ferry's 400-person-plus vessels, it can operate in many of the Bay Area's shallow marinas without the need for dredging, though Ralli said they could build larger hydrogen fuel cell boats, too. The ferries refuel from a truck filled with [liquid hydrogen](#), similar to the way diesel boats are refueled now.

To start, Ralli said, the company will focus on private partnerships. There are no contracts in place, so it's unclear where the ferry would pick up and drop off passengers. But Ralli said it would likely compliment existing routes that private [ferry](#) operators Tideline and Prop SF already run. Tideline has public commuter routes from Berkeley to San Francisco's Ferry Building and Mission Bay's Pier 52, meaning anyone can show up and buy a ticket. Prop SF operates more than a dozen private routes that are exclusive to certain Bay Area employers.

The Water-Go-Round is just the start of what the boat's designers hope will be a proliferation of hydrogen fuel cell technology on the water, Pratt said. The hydrogen fuel cell powertrains can be fitted in new or old vessels. They can power any kind of vessel, from tug boats to cargo freighters to [cruise ships](#), he said.

Already, Golden Gate Zero Emission Marine is fielding inquiries about how to apply this technology elsewhere, as regulations to reduce water-based pollution increase demand for greener solutions, Pratt said. Those ships could be built in Alameda, at Bay Ship & Yacht Co., in yards up and down the West Coast or anywhere across the country, he said.

"The more we talked to people the more we found out people were really waiting for this, even though they didn't know what it was they were waiting for," Pratt said. "But then we showed them what could be possible, and a lot of people said, 'I want that.' "

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