

MV Sea Change

October 27, 2025 • vajiramandravi.com



About MV Sea Change:

- It is the **world's first commercial passenger ferry powered entirely by zero-emission hydrogen fuel cells.**
- The 75-passenger ferry was **built by All American Marine Shipyard** for the compatriot shipowner SWITCH Maritime.
- The vessel, designed by Incat Crowther, is **fitted with hydrogen-powered fuel cells** producing electricity to power electric motors, enabling the vessel to operate for about 16 hours, traveling around 300 nautical miles, between refueling sessions.
- It can reach speeds up to 20 knots, and its services speed will be about 8-12 knots.
- It uses H2 fuel cells to **generate electricity through the combination of H2 from storage tanks and oxygen from the ambient air.**
- Unlike current diesel-powered ferries that emit pollutants, the hydrogen-powered Sea Change **produces only heat and water vapor as by products.** Passengers can even drink the emissions from an onboard

water fountain.

Q1: What is a fuel cell?

A fuel cell is a device that generates electricity by a chemical reaction. Fuel cells can be used in a wide range of applications, providing power for applications across multiple sectors, including transportation, industrial/commercial/residential buildings, and long-term energy storage for the grid in reversible systems.

Source: [World's first hydrogen-powered commercial ferry launches in San Francisco](#)

Source: <https://vajiramandravi.com/current-affairs/mv-sea-change/>

© Vajiram & Ravi. For personal use only.