

PARTNERSHIP AIMS TO DEVELOP HYDROGEN FERRY

DFDS and its partners have applied for EU support for development of a ferry powered by electricity from a hydrogen fuel cell system which only emits water. Green hydrogen is to be produced by a projected offshore wind energy-powered electrolyser plant in Greater Copenhagen.

A group of companies have partnered up in order to develop a 100% hydrogen powered ferry for initially DFDS' Oslo-Frederikshavn-Copenhagen route.

The ferry will be powered by electricity from a hydrogen fuel cell system that emits only water and can produce up to 23 MW to propel the ferry.

“The largest fuel cell systems today produce only 1-5 MW, and the development of such large-scale fuel cell installations for an electric ferry is a monumental task. We can only succeed in partnership with companies that bring together some of the globe’s finest expertise in design, approval, building, financing and operation of innovative vessels,” says Torben Carlsen, CEO of DFDS.

The partnership committed to achieving this includes DFDS, ABB, Ballard Power Systems Europe, Hexagon Purus, Lloyd’s Register, KNUD E. HANSEN, Ørsted and Danish Ship Finance.

“Together, we expect to be able to make these fuel types and technologies commercially viable, which is key to a transition of the industry to climate neutrality. This is also the ultimate goal of DFDS’ climate action plan,” says Torben.

The partnership has applied for support from the EU Innovation Fund in order to accelerate the process and in view of the public interest in developing such technology. There are no ferries of this kind in the world today and a high level of uncertainty is therefore involved in the undertaking. However, if the project develops as projected, the ferry could be in full operation on the route, or elsewhere, as early as 2027.

The hydrogen will be produced locally in Greater Copenhagen based on offshore wind, and the project will investigate how to optimally integrate with the local energy system.

The ferry that has the working name Europa Seaways, is designed for 1,800 passengers and has capacity for 120 trucks or 380 cars.

DFDS A/S
Sundkrogsgade 11
DK-2100 Copenhagen Ø
CVR 14 19 47 11

www.dfds.com

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Contact

Torben Carlsen, CEO
+45 33 42 32 01

Karina Deacon, CFO
+45 33 42 33 42

Søren Brøndholt Nielsen, IR
+45 33 42 33 59

Gert Jakobsen, Communications
+45 33 42 32 97

About DFDS

DFDS provides ferry and transport services in Europe, generating annual revenues of EUR 1.9bn.

To over 10,000 freight customers, we deliver high reliability through ferry & port terminal services and transport & logistics solutions.

For five million passengers, we provide safe overnight and short sea ferry services.

Our 8,000 employees are located on ships and in offices across 20 countries. DFDS was founded in 1866, is headquartered in Copenhagen, and listed on Nasdaq Copenhagen.

Disclaimer

The statements about the future in this announcement contain an element of risk and uncertainty which means that actual developments may diverge significantly.

Vessel and route details

On board power production	PEM Fuel cells
Engine power	23MW
Fuel	Compressed hydrogen
Fuel tank capacity	44T
Passenger capacity	1,800
Trailer and car capacity	2,300 lane metres
Route	Copenhagen - Frederikshavn - Oslo
Roundtrip time	48 hours
Bunkering interval	48 hours
CO2e/year emission avoidance	64,000 Tons

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