

Press release, 14 October 2021:

# TECO 2030 signs supply frame agreement with Chemgas Shipping

Norwegian maritime cleantech company TECO 2030 ASA has signed a supply frame agreement with the Dutch shipowner Chemgas Shipping BV. The deal could lead to the delivery of fuel cell modules with a combined capacity of up to 200 megawatts.





The modules are to be installed on Chemgas Shipping's new hydrogen-powered tugboats and transport barges which will operate on the Danube River, Europe's second longest river and the longest river in the EU. The fuel cells will enable these boats to sail emissions-free.

Chemgas Shipping plans to install fuel cell modules from TECO 2030 on up to 120 transport barges and between 40-60 tugboats. The exact number remains to be decided, and purchase orders outlining the price and delivery time for the fuel cells will be signed for each individual ship over the next few years.

"We are thrilled that Chemgas Shipping has chosen to cooperate with TECO 2030 on this ambitious and important project, and that we have now been able to progress from a letter of intent to a supply frame agreement," says Tore Enger, CEO of TECO 2030 ASA.

"The economic potential of this framework agreement is large for TECO 2030 and may lead to revenues of up to 150 million Euros over the next three to eight years," Enger adds.

## Green Hydrogen @ Blue Danube

The vessels the fuel cell modules are planned to be installed on, will be used to transport green hydrogen produced from solar and wind energy in Romania emissions-free along the Danube to industrial buyers in Austria and Germany as part of the Green Hydrogen @ Blue Danube project.

The Green Hydrogen @ Blue Danube project is led by the Austrian energy utility Verbund, one of Europe's biggest hydropower producers. It is possibly Europe's most ambitious hydrogen project and is being developed within the framework of the European Commission's Important Projects of Common European Interest (IPCEI) initiative.

The project's goal is to create a trans-European green hydrogen value chain - from production and transportation to purchase by industrial and mobility customers. The first phase of the project focuses on the production and use of green hydrogen in Austria and in the southern part Germany.

The second phase will focus on the production of green hydrogen from renewable electricity in south-eastern Europe. Here, wind, solar and hydropower will be converted into hydrogen which will then be transported along the Danube River to industrial users in Austria and Germany.

## First delivery planned for 2023

TECO 2030 and Chemgas Shipping are among the partners involved in the project, and the letter of intent between the two companies for the delivery of fuel cells was signed in September 2020.

The first fuel cell delivery is planned to take place in spring 2023, and this will be a pilot version. Deliveries will continue over the following years, with most of them planned to occur after 2025.

The fuel cells will be installed both on the transport barges that will be used to transport green hydrogen from Romania to Austria and Germany, and on the tugboats that will transport these barges on their journey along the Danube.

"The TECO 2030 marine fuel cell is the proper solution for inland waterway navigation. We have to deal with low water situations where heavy batteries are not acceptable," says Gunther Jaegers, managing partner of Chemgas Shipping.

## The engine of tomorrow

Hydrogen fuel cells are the engines of tomorrow and convert hydrogen into electricity while emitting nothing but water vapour and warm air. By installing hydrogen fuel cells, ships can use hydrogen as fuel and become emissions-free.

Hydrogen fuel cells offer a zero-emission alternative for applications for which batteries are not a good option, for example due to weight issues. Fuel cells have a longer range, weigh less, and take up less space than batteries. They do not need to be recharged, and can instead be refuelled with hydrogen, almost in the same way as with traditional fossil fuels.

TECO 2030 is together with the Austrian powertrain technology company AVL currently developing the first fuel cell system in the world that is specifically designed for use onboard ships and on other heavy-duty applications.

The TECO 2030 Marine Fuel Cell System and Fuel Cell Module FCM400™ have received an "Approval in Principle" (AiP) by DNV, one of the world's leading classification and certification bodies, confirming that these are safe to use onboard ships.

The TECO 2030 Marine Fuel Cell will be produced at the company's new combined innovation center and factory in Narvik in northern Norway, where production is due to start towards the end of 2022.

## The EU is facing stricter environmental regulations

The EU aims to reduce its greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels, and to become climate-neutral by 2050. All transport modes will have to contribute to the reduction efforts, including the maritime sector. One of the targets is that all barges operating on Europe's rivers and canals should become emissions-free by 2050.

Many ship-owners will have to do something to make their vessels more climate-friendly, and TECO 2030 will help them with that.

TECO 2030 is delivering technology that helps ships reduce their emissions. In addition to hydrogen fuel cells, the company is developing carbon capture and exhaust gas cleaning systems for the maritime industry, which will enable ships running on fossil fuels to lower their environmental and climate footprints.

### For more information, please contact:

- **Tore Enger**  
CEO of TECO 2030 ASA  
+47 920 83 800  
tore.enger@teco2030.no
- **Gunther Jagers**  
Managing Director, Chemgas Shipping  
+49 171 3036901  
g.jaegers@chemgas.nl

## About Chemgas Shipping

Founded in 1965, Chemgas is one of Europe's leading shipowners for the transport of liquefied gasses (LPG, ammonia and chemical gasses) on the inland waterways and coastal waters of Europe. Chemgas has offices in Rotterdam and Luxembourg and owns and operates a modern fleet of LPG barges and coasters that serve the company's customers from the petrochemical industry. The barge activities take place mainly along the Rhine and in the regions surrounding Amsterdam, Rotterdam and Antwerp.

## About TECO 2030

TECO 2030 aims to contribute to the green transition in the maritime sector by delivering technology that helps ships to reduce their environmental and climate impacts. TECO 2030 is developing hydrogen fuel cells that enable ships and other heavy-duty applications to become emissions-free. The company is also developing other solutions that can help the maritime industry to reduce its emissions, such as exhaust gas cleaning and carbon capture systems for ships. TECO 2030 was founded in 2019 and is headquartered at Lysaker, Norway. The company is listed on Euronext Growth on Oslo Stock Exchange under TECO. TECO 2030 has its roots in the TECO Maritime Group, a group that has provided technology and repair services to the global shipping industry since 1994. For more information, please visit [www.teco2030.no](http://www.teco2030.no).

