



European  
Commission



# INNOVATION FUND

Deployment of net-zero and innovative technologies

## HIPPOW: Highly Innovative Prototype of the most Powerful Offshore Wind turbine generator

The Innovation Fund is 100% funded by the EU Emissions Trading System

### | Project Factsheet

The HIPPOW project will deliver the installation, operation, and testing of the world's most powerful offshore wind turbine prototype. The project will validate several new technological developments and obtain the necessary certifications, before starting full-scale production of Siemens Gamesa's next offshore wind turbine model. The prototype will be installed at the Wind Turbine Test Field of Østerild, Denmark, and will produce clean electricity with a 99.93% relative greenhouse gas (GHG) emission avoidance compared to the reference scenario.

The innovative technologies are related to the nominal power, bearings, electrical system, installation of blades and tower, cooling system, and maintenance strategy, among others. The prototype will be the first of a kind due to its size and power rating, as well as the disruptive innovations implemented both in the product and in

#### COORDINATOR

SIEMENS GAMESA RENEWABLE ENERGY AS

#### LOCATION

Denmark

#### CATEGORY

Renewable Energy (RES)

#### SECTOR

Wind energy

#### AMOUNT OF INNOVATION FUND GRANT

EUR 30,000,000

#### EXPECTED GHG EMISSIONS AVOIDANCE

55,424 tonnes CO2 equivalent

#### STARTING DATE

01 April, 2023

#### ENTRY INTO OPERATION DATE

31 December, 2024

#### FINANCIAL CLOSE DATE

31 March, 2024

the installation process. These innovations go beyond the current state of the art by offering more efficient, reliable, and cost-effective solutions. The innovations will mainly contribute to the reduction of GHG emissions by producing renewable energy and circularity. The prototype will supply enough green energy to power around 7 000 average Danish households every year, reducing greenhouse gas emissions by 55 424 tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e) during the whole project duration.

The HIPPOW project will contribute to the European Green Deal for a cleaner and more competitive Europe and the Circular Economy Action Plan in Europe. The future product will have a high impact on the decarbonisation of Europe and will reduce its dependency on fossil fuels, in line with

REPowerEU Plan and the European ambitious targets of renewable energy capacity installation for the coming years.

The project's ability to expand and adapt to different regions and markets is a strong indicator of its potential for scalability. Furthermore, the project's focus on sustainability and environmental impact is crucial in today's society, where businesses and industries must take responsibility for their impact on the planet. Full scale production of Siemens Gamesa's next generation offshore wind turbine, with manufacturing plants located in different countries of the EU, will allow the creation of new jobs, contributing to the economic growth of Europe and ultimately benefiting the wider economy.

## | Beneficiaries

SIEMENS GAMESA RENEWABLE ENERGY AS

Denmark