

Petrofac powering offshore wind

Petrofac 





Powered by people

Our people, their capabilities, and skills set us apart.

DESIGN

From concept to execution, we think ahead, designing in ease of construction, operation, and sustainability.

BUILD

We've safely built and installed close to 9GW of wind for some of the world's most impressive and challenging projects.

MAINTAIN

Our wind story began in 2009 when we provided people, maintenance, and support services to the world's first HVDC converter station. Today our support extends from the tip of the blade to the seabed and onwards to balance of plant onshore.



200+

We have delivered 200+ major projects



41+

We have 41+ years of energy experience



We offer holistic support to the wind sector from concept right through to ongoing support and maintenance.



100+

Globally, we have provided 100+ assets globally with our asset support services



10+

We have 10+ years of offshore wind expertise



2030

we have committed to Scope 1 and 2 Net Zero by 2030

15 years of delivery in offshore wind

EPCI and O&M



HVDc BorWin 1
TenneT

O&M consultancy services
& personnel supply

2009



HVDc DolWin 1
TenneT

Engineering support &
construction supervision

2011



**HVDc HelWin 1 and
BorWin 2**
Siemens Energy

Commissioning support

2013



HVAC Galloper
RWE Renewables

EPCIC OSS

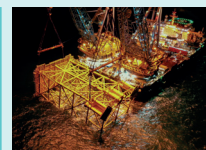
2016



HVDc BorWin 3
TenneT

EPCIC OSS

2018



HVAC Seagreen
SSE

EPCIC OSS & LSS

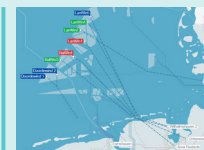
2022



HVAC HKZ
TenneT

EPCIC (2) OSS

2023



HVDc 2GW program
TenneT

EPCIC (6) OSS & (1) LSS

2023

Engineering and Consultancy

2012



HVAC Race Bank
Centrica

Concept study OSS

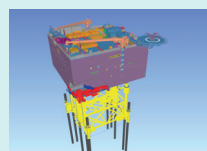
2013



HVAC Dudgeon
Equinor

Concept study OSS & LSS

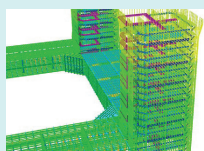
2015



HVAC Triton Knoll
RWE, J-Power, Kansai

Concept study MFP

2018



Floating wind

Concept study floating
foundation

2019



HVAC Seagreen
SSE

FEED study OSS

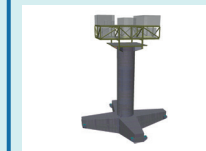
2019



HVAC Sofia
RWE

FEED study LSS

2022



Floating wind

Seawind Ocean Technology
Design verification of
floating foundation

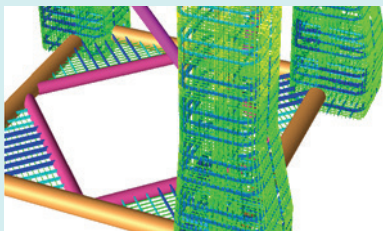
Supporting you every step of the way

We are one of the most experienced service providers in the global offshore wind sector.

For more than a decade, we've helped clients turn offshore wind concepts into reality by engineering procuring, constructing, and commissioning HVDC and HVAC substations.

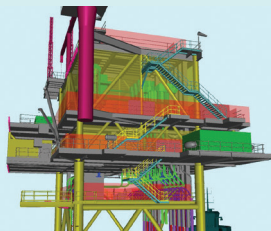
We blend our front-end engineering skills with our project management expertise, procurement network and logistics knowledge to design and execute large-scale, complex EPC projects.

We offer flexible delivery models too, ensuring each project is tailored to our client's needs.



We help you frame future projects through feasibility studies, planning, concept design and pre-FEED.

Develop



Even in the early design stages, we always think ahead - emphasising the ease of construction, operation, sustainability and longevity.

Design



Across the world, we're known for delivering demanding EPC and EPCI projects on time, with impeccable safety and for getting the best from our supply chain.

Build



We've installed some of the world's most impressive offshore facilities - including the largest ever converter platform.

Install



From one-off assignments to fully managed solutions, we deploy ultra-efficient operations to help reduce costs and enhance productivity.

Maintain

We bring the right energy

FLEXIBLE, RESPONSIVE DELIVERY

Sometimes, clients ask us for a single standalone service. But, when they ask us to integrate our services, the benefits are compounded - deepening relationships, developing teams, driving down risks, increasing efficiencies, applying learnings, and unlocking value at every stage.

INTEGRATED SERVICES

For maintenance scopes, we can integrate all offshore disciplines to optimise vessel trips and schedules. We have our own industrial services, including rope access, and can seamlessly deliver offshore execution. Our team has high voltage (HV) competence and a full suite of in-house Technical Authorities. We can fully digitise operations, breaking down barriers and building proportionate maintenance strategies that reduce OPEX.

ULTRA-EFFICIENT MAINTENANCE

Enabled by multi-disciplinary teams, connected technologies, and data-driven insights, we provide a complete suite of operations and maintenance solutions from the tip of the blade to the seabed.

Our integrated offshore operations and maintenance services allow us to drive improvements in safety, productivity, and performance.

Using best-in-class digital tools and proven systems and processes, our teams ensure repairs, modifications and upgrades are right first time. From using cutting-edge AI to streamline operations, to keeping your support local, we are the power behind offshore wind.



Partnering for success

In offshore wind, we've collaborated on some of the most impressive wind facilities, managed some of the most challenging installations - and have always delivered with certainty, safety, and ultra-efficiency.

And, all the while, we've been adding to the strength and dynamism of the wider offshore wind sector - with a delivery model that draws on global expertise, nurtures homegrown talent, and supports local supply chains.

We draw strength from our supply chain partnerships, supporting local firms, increasing flexibility, optimising cost, and reducing risk.

In 2022, Petrofac and Hitachi Energy entered into a collaboration to provide grid integration and associated infrastructure to support the rapidly growing offshore wind market.

In 2023, this partnership was awarded a landmark framework agreement to support TeneT's groundbreaking 2GW Offshore Wind programme. Under the framework, Petrofac and Hitachi Energy will deliver six of the programme's renewable integration systems: five that will connect offshore wind farms to the Dutch grid and the sixth to the German grid.



“

Our HVDC and HVAC solutions are key enablers of the transition to a global energy system that is more sustainable, flexible and secure.

Niklas Persson,
Managing Director of Hitachi Energy's Grid Integration business.

”

Offshore wind EPCI

SUPPORTING EUROPE'S ENERGY TRANSITION

“ONE OF THE WORLD'S LARGEST HVDC PLATFORMS”

One of our most challenging offshore wind projects was the BorWin3 offshore wind grid connection for TenneT, which now supplies more than one million German homes with clean energy. Delivered in partnership with Siemens, this involved the engineering, procurement, and construction of one of the world's largest HVDC platforms – and the installation of the finished topside involved the region's first-ever float over, using dynamic positioning technology on a semi-submersible vessel.



During construction, we mobilised more than 1,500 workers, who worked more than 13.5 million work-hours. At peak construction the platform occupied almost five square kilometres of Dubai's Drydocks World.



“THE WORLD'S DEEPEST FIXED BOTTOM OFFSHORE WIND FARM”

In 2020, Seagreen Wind Energy recognised our track record for safe and effective project delivery in the renewable energy sector with a major project award. This entailed the engineering, procurement, fabrication, transportation, offshore installation and commissioning of the HVAC offshore substation platform, including the topside, jacket and piles.

The massive offshore substation forms the backbone of the offshore wind farm. At 40 metres long, 45 metres wide and 15 metres high, the 4,800 tonne heavyweight topside superstructure accommodates three circuits to generate 1075 MW of electricity to power more than 1.6m UK homes. Seagreen became fully operational in 2023 and was awarded Renewable UK's 'Project of the Year' the same year.



Tomorrow's floating energy production

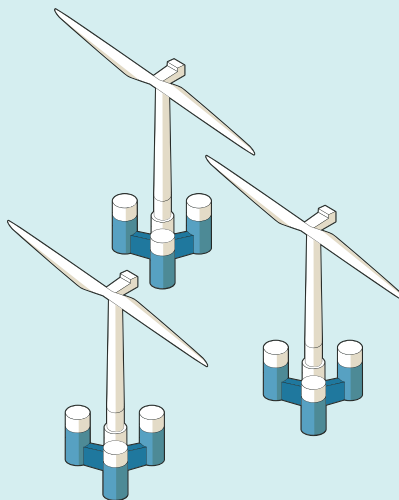
SEAWIND OCEAN TECHNOLOGY

LOCATION: EUROPEAN WATERS

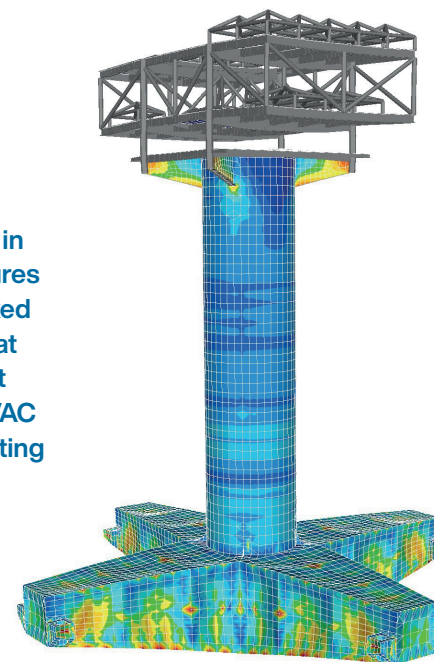
START DATE: 2022

We supported the design verification of Seawind Ocean Technology's unique floating offshore wind energy system and planned to provide project management/ EPCm services in connection with Seawind's first 6.2MW floating offshore wind turbine demonstrator, eventually planned for European waters.

Netherlands-based Seawind has developed proprietary two-bladed floating wind turbines integrated with a unique concrete floating structure suitable for installation in all seas, including cyclonic regions and ultra-deep waters.



Our consulting team combined its experience in analysing floating structures and designing bottom-fixed substations to define what will be needed to support tomorrow's 1,200MW HVAC and 1,200MW HVDC floating offshore substations.



Sustainable, ultra-efficient operations, with a commitment to Net Zero

We place sustainability at the core of our strategy. It is critical to creating long-term value for our clients, stakeholders, and teams.

We are progressively reducing the environmental impact of our own operations through efficiency gains and the application of digital technologies.

We have committed to reach Net Zero in scope 1 and scope 2 emissions by 2030, and are promoting and supporting decarbonisation across our supply chain.

Importantly, we have built Direct Air Capture (DAC) into our Net Zero plan, signing-up as the first customer of Storegga's proposed UK-based, large-scale facility - for which we are also supporting the pre-FEED phase.

This commitment is part of a broader sustainability strategy which includes commitments to diversity and inclusion, impeccable standards of governance, a local delivery model, and an industry-leading safety record.

We focus on three areas:

Enable -encouraging our people to be Net Zero advocates and support our clients, partners and suppliers in achieving their lower carbon ambitions

Reduce -cutting our emissions by implementing energy efficiencies, optimising our operations and methods of construction, and reducing flaring and venting

Transform -switching to renewable energy, phasing-in hybrid and electric vehicles on site, and fitting smart building technology in our offices to maximise energy efficiency



Talk to us



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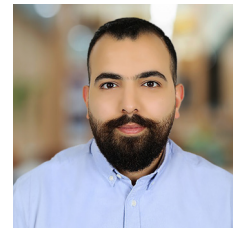


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find out more



To de-risk your new energy projects,
turn to Petrofac