

## Press release

# RWE and ARC marine deploy environmental innovation at Rampion offshore wind farm

- **First full-scale deployment of eco-engineered scour protection<sup>1</sup> at an offshore wind farm, combining infrastructure resilience with marine biodiversity gains**
- **75,000 patented Reef cubes<sup>®</sup> deliver engineering and marine life benefits by more than doubling the amount of potential habitat space**
- **Eco-engineered solutions could replace traditional rock-based products to protect turbine foundations.**

Swindon, 16 October 2025

RWE, a world leader in offshore wind, and UK-based nature-inclusive<sup>2</sup> design pioneer ARC marine have achieved a global first at Rampion Offshore Wind Farm with the installation of specially eco-engineered Reef cubes<sup>®</sup> as undersea protection for turbine foundations.

The pioneering solution is designed to protect the critical energy infrastructure from strong currents in the subsea environment, while creating new and extending existing living marine habitats.

In the last few days, around 75,000 Reef cubes<sup>®</sup> ranging in size from 15cm to 35cm, were installed at the base of one of the turbines at the Rampion offshore wind farm, by specialist contractor [Rohde Nielsen](#). It is the first real-world deployment of the patented Reef cubes<sup>®</sup> as scour protection at an operational wind farm, and forms part of the Reef Enhancement for Scour Protection (RESP) pilot<sup>3</sup>. It follows an earlier [announcement in July](#) of RWE and ARC marine's partnership.

**Thomas Michel, COO of RWE Offshore Wind:** *"We are delighted to have reached this important milestone at Rampion in collaboration with our partners ARC marine and Rohde Nielsen. The successful implementation of this pilot project marks an important step forward in testing solutions that can both safeguard our assets and contribute to the marine environment. We look forward to monitoring the outcomes and sharing the learnings with our stakeholders and the wider industry."*

Use of scour protection is standard practice at offshore wind farms, and usually involves placing layers of rock on the seabed around the base of a turbine foundation. Reef cubes<sup>®</sup> offer an alternative that provides equally effective protection from erosion but also enhanced biodiversity. They are modular, lighter, easy to install, and designed to turn protection zones into thriving ecosystems. The structure of the cubes provides habitats for marine life, supports fish

populations, shellfish colonisation, and broader ecosystem development. At just one of the Rampion turbines, the Reef cubes® are providing a habitat surface area of 25,000 square metres.

**Tom Birbeck, CEO of ARC marine, said:** *“This project is a landmark moment for ARC marine and our Reef cubes® technology. By using a patented shape and optimised surface texture, the Reef cubes® provide over 100% more volume of habitat spaces than standard rock protection and 38% more surface area. Seeing them installed at Rampion demonstrates their potential to deliver dual benefits: robust scour protection and the creation of new marine habitats. This installation marks the start of global deployment potential for Reef cubes® at offshore turbines and platforms. They are scalable, locally sourced, cost-effective and fully aligned with incoming biodiversity net gain requirements and we are proud to work with RWE on pioneering a new generation of nature-inclusive offshore wind solutions.”*

The use of the Reef cubes® is aligned with RWE’s commitment to delivering biodiversity-positive offshore wind farms and this collaborative pilot has been designed to test and advance solutions that can deliver both engineering performance and environmental benefits.

The RESP pilot will next move into a monitoring phase. Ecological and geophysical surveys will be conducted between 2026 and 2030 to assess the cubes’ performance as a scour protection system and to study how marine life interacts with the structures over time. Ecological and engineering data will be shared from 2026, offering a first glimpse at the real-world viability of nature-inclusive protection structures.

**Pictures and footage of the installation and quayside trials for media use** (credit: RWE) are available at the [RWE media centre](#)

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**Editors notes**

1 Scour protection is a protective layer which is placed on the seabed at the base of an offshore wind turbine foundations in order to protect it from erosion by strong currents. It has traditionally been provided by rock armour.

2 Nature-Inclusive Design (NID) is a design philosophy targeted at integrating ecosystems, or specific habitats and species, with made-made architecture and infrastructure, via the intentional incorporation of habitat features. Its objective is to increase biodiversity within infrastructure that is required anyway, such as at offshore windfarms.

3 The project has been driven by close collaboration between RWE’s Engineering, Innovation, Construction and Sustainability teams, ARC marine’s engineering, science, manufacturing and marine operations teams and Rohde Nielsen. The project has also been supported by Innovate UK, European Innovation Council and The Mulago foundation.

**RWE**

RWE is leading the way to a modern energy world. With its investment and growth strategy, RWE is contributing significantly to the success of the energy transition and the decarbonisation of the energy system. Around 20,000 employees work for the company in

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almost 30 countries worldwide. RWE is one of the leading companies in the field of renewable energy. RWE is investing billions of euros in expanding its generation portfolio, in particular in offshore and onshore wind, solar energy and batteries. It is perfectly complemented by its global energy trading business. Thanks to its integrated portfolio of renewables, battery storage and flexible generation, as well as its broad project pipeline of possible new builds, RWE is well positioned to address the growing global demand for electricity, particularly driven by further electrification and artificial intelligence. RWE is decarbonising its business in line with the 1.5-degree reduction pathway and will phase out coal by 2030. RWE will be net zero by 2040. Fully in line with the company's purpose - Our energy for a sustainable life.

## **ARC marine**

ARC marine is an award-winning eco-engineering company which brings nature-inclusive solutions to traditional marine industries. Based in the UK but delivering projects globally, the company specialises in designing, manufacturing, installing and monitoring subsea protection structures in order to enhance and study biodiversity. Sustainability is at the core of ARC marine, with all our products having carbon-neutral and plastic-free construction, as well as being made from 98% recycled materials. Developers interested in collaborating on nature-positive offshore wind or other marine-engineering solutions can contact ARC marine to explore partnership opportunities.

## **Rohde Nielsen**

Rohde Nielsen is a global leader in marine contracting, with its headquarters located in Copenhagen, Denmark. Established in 1968, the company has evolved to become one of the foremost entities in offshore construction and engineering projects worldwide, ranking among the top firms in the industry. With a versatile fleet of 45 specialized marine vessels, Rohde Nielsen combines over 50 years of expertise to offer tailored solutions in offshore projects that prioritize efficiency, cost-effectiveness, and punctuality.

Operates globally, Rohde Nielsen is committed to sustainable practices that ensure minimal environmental impact and promote marine ecosystem health. The company's service offerings encompass beach nourishment, land reclamation, trenching and backfilling, rock installation, and seabed reinstatements. Every project is approached with a mindset of sustainability, integrating eco-friendly methods and technologies to enhance marine and coastal resilience.

Rohde Nielsen is a pioneer in innovative offshore engineering, dedicated to driving growth and safety through sustainable measures. The company embodies excellence in delivering unmatched quality in the marine contracting sector, while actively contributing to a sustainable future.

## **Forward-looking statements**

*This press release contains forward-looking statements. These statements reflect the current views, expectations and assumptions of management, and are based on information currently available to management. Forward-looking statements do not guarantee the occurrence of future results and developments and are subject to known and unknown risks and uncertainties. Actual future results and developments may deviate materially from the expectations and assumptions expressed in this document due to various factors. These factors primarily include changes in the general economic and competitive environment. Furthermore, developments on financial markets and changes in currency exchange rates as well as changes in national and international laws, in particular in respect of fiscal regulation, and other factors influence the company's future results and developments. Neither the company nor any of its affiliates undertakes to update the statements contained in this press release.*

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