



### Story type

#technology (main category)  
#collaboration, #diversification, #energy transition, #innovation

### Benefits

- ▶ Growth of renewables division team to 10.
- ▶ Construction of a strong project pipeline featuring its ECG technology.

### Key findings

#### For young people

- ▶ Broaden your mindset beyond what you think you want to do.

#### For industry

- ▶ Challenge your norm, in terms of innovation, to keep evolving, and avoid stifling growth.

#### For government

- ▶ Don't turn oil and gas off overnight. That's not transition, it's energy security suicide.

### Proserv at a glance:

**Key products and services:** controls systems.

#### Main industries served:

- ▶ Oil and gas – 98%
- ▶ Offshore renewable energy – 2%

**Headquarters:** Aberdeen, UK

**Year established:** 1962

**Number of employees:** 800

**Revenue:** £143m

**Revenue from exports:** 71%

# Proserv

## From concept to breakthrough in offshore wind



### Paul Cook

Vice President,  
Renewables

### How is Proserv thriving?

Through Proserv's extensive approach to innovation and R&D, Proserv has successfully diversified into the offshore wind sector with its innovative ECG™ technology. The breakthrough cable monitoring system has secured major contracts for all 3 phases of Dogger Bank Wind Farm, as well as Hywind Scotland and Hywind Tampen, and positioned the company at the forefront of this critical technology area.

**The challenge** – In 2017, with revenues almost entirely derived from oil and gas activities, Proserv recognised the growing opportunities in offshore wind but faced the challenge of how to leverage its six decades of controls technology expertise into this new market. The company needed to identify where it could add genuine value while building credibility with an entirely new customer base.

Industry data has highlighted the scale of the challenge and opportunity, with ORE Catapult reporting that 75-80% of offshore wind insurance claims relate to subsea cable failures. Traditional monitoring methods such as distributed sensing or ROV inspections were proving inadequate, often missing crucial faults and failures on joints and terminations until too late.

To address these critical industry challenges whilst leveraging its controls expertise, Proserv needed a carefully planned strategy for entering the renewables market.

**The solution** – The leadership team had been fielding questions on the potential of deploying similar controls technologies and services into the renewables sector, and so the company embarked on a focused diversification strategy.

One of the first steps was the appointment of Paul Cook. This was an internal move to become wholly focused on renewables, and his first port of call was to dedicate his time

to thorough market research and network building to identify an optimal market entry point.

A pivotal moment came in 2018 when ORE Catapult and ScottishPower Renewables launched an industry challenge focused on new methodologies for high-voltage cable monitoring. Proserv's proposed solution was shortlisted in the top three, leading to a presentation to senior technical leaders from ScottishPower Renewables and parent organisation Iberdrola.

Whilst the initial response was positive, the company was told to return when the technology was proven. Proserv then secured ScottishPower Renewables as an industrial sponsor and successfully applied for £1m in InnovateUK Smart Grant funding to expedite development and commercialisation.

The company strengthened its position through strategic partnerships, notably taking a stake in Synaptec in 2022. The two companies' technologies proved highly complementary – Synaptec's passive sensing technology converts electrical, thermal and mechanical parameters into light for transmission of data through fibre optic networks, whilst Proserv's expertise lies in integrating sensor technologies into broader holistic solutions.

This collaboration paid dividends in 2021 when Proserv secured its first major contract for phases A and B of Dogger Bank Wind Farm, which is set to be the world's largest offshore wind farm when complete.

The seven-figure contract covers the delivery of inter-array cable and termination monitoring systems. ECG offers operators comprehensive visibility of cable assets' live condition through an integrated and scalable approach. By combining Synaptec's passive sensing technology with machine learning and artificial intelligence capabilities, the system represents a step-change in automated condition monitoring. The technology enables early detection of performance anomalies and deviations from the norm, long before they develop into problems.

A key differentiator is its non-intrusive passive monitoring capability. Multiple sensing technologies can be deployed

throughout a wind farm to create a multiparameter sensing network, particularly and uniquely at the cable's terminations, with measurements provided at a central location. Since the passive sensor arrays require no power or data networks, they provide more reliable, secure and synchronous live data from more locations – ideal for automated condition monitoring and improved asset management decisions.

Looking ahead, Proserv sees significant growth potential in the renewables sector, spearheaded by the rollout of ECG. Whilst renewables continues to be a growth area for Proserv, the project pipeline and increasing bid activity suggest growth ahead.

Indeed, renewables for Proserv has grown from a single dedicated resource in 2017 to broader teams of engineers, projects managers and offshore service personnel delivering ECG™ projects in 2024. During this time, Proserv has built a significant project pipeline worth tens of millions of pounds for its ECG technology across multiple renewable projects.