



Offshore
Wind
Growth
Partnership

2024 April Innovation Grant Webinar

Tom Speedie
Project Manager

9th May 2024

Funded by

Offshore Wind
Industry Council

Delivered by

CATAPULT
Offshore Renewable Energy

Webinar Agenda

- 1. Introductions and housekeeping**
- 2. OWGP Introduction**
- 3. 2024 Innovation Grant Outline**
- 4. Industry Champions**
 - Ocean Winds – Gonzalo Cuevas Ezquerro
 - ScottishPower Renewables – Teresa Enriquez, Innovation Manager
- 5. Application Process**
- 6. Q&A**

Introduction to OWGP

Aim:

A long-term business transformation programme for the UK offshore wind supply chain

Funding:

- OWIC (offshore wind developers) are funding OWGP.
- OWGP will leverage regional and national public funding

Delivery:

Budget of £100m over ten years to provide:

- **Business Transformation** – structured programmes to help companies grow.
- **Grant Funding** – for developing new products, services, capacity and capability

Objectives:



Increase UK
content in UK
projects



Increase
exports to
global markets



Increase
economic value
(jobs and GVA)



Increase UK IP
embedded in
supply chain

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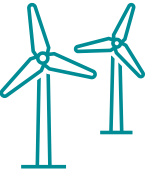
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April 2024 Innovation Grant Summary

Innovation Grants are smaller scale grants for game-changing projects that deliver new innovative technologies, products and services to the offshore wind sector.

The Innovation Grants are targeted to address specific UK Offshore Wind supply chain priority areas. The scope has been designed to align with the [Supply Chain Capability Analysis](#) (2023) and recent [Offshore Wind Industrial Growth Plan](#)(2024)



Project Scope

‘Future Cables and Electrical Systems’ and ‘Next Generation Installation and O&M Technologies’

Some project focus areas may include:

- Static and Dynamic Cables
- Export Cables
- Cable Protection Systems
- Electrical systems and SCADA design
- Smart O&M solutions
- Turbine installation, transportation and assembly equipment
- Cable laying vessels/solutions



Eligibility Criteria

Eligibility:

- Be a UK-registered company of any size
- Project scope cannot be described as ‘business as usual’
- Show a clear intent to develop your business to offshore wind
- Have not received OWGP funding through a competition launched in the last 12 months (**May 2023 Dev Grant onwards**)
- Have not received 3 or more OWGP funding awards
- Demonstrate existing capability in offshore wind or plan for working in offshore wind
- Show a clear intent to grow the business (jobs, turnover, export and IP)
- Provide monetary and/or in-kind contribution
- Explain how this project would not take place without OWGP support

Scope:

- Investing in new equipment or facilities to address innovation priority areas
- Developing new technologies products and/or services to accelerate the development of industry innovation priority areas
- Investing in new technologies, products and/or services to improve operational performance, reliability and/or efficiency
- Other activity that will grow the company and lead to an increase in jobs, turnover, export and IP
- Technology development should be **near-to-market**, ready for commercialisation (this includes floating technology)

2024 Industry Champions



What are the benefits of being an Industry Champion?

- Helping to specify industry innovation priorities
- First and direct access to successful companies and solutions
- Providing an industry steer on solutions that are of most interest
- Recognition and inclusion on competition promotional materials (social media, press releases, webinar)
- Meaningful UK supply chain engagement activity with solution providers



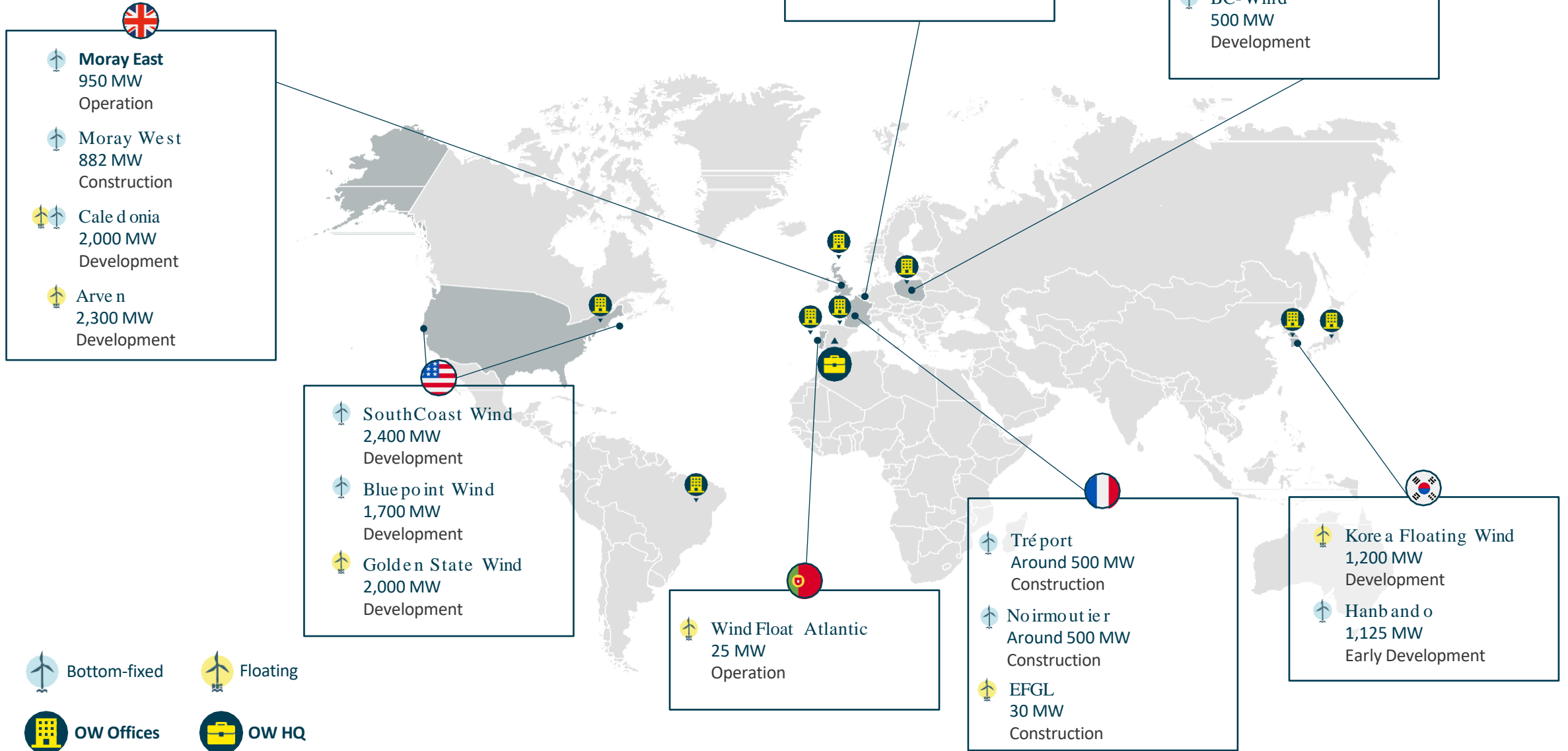
Industry Champion: Ocean Winds

Gonzalo Cuevas Ezquerro – Electrical Senior Engineer

OW – Cable Problematics

OUR GLOBAL FOOTPRINT

Consists of around **17 GW** (gross) with **15 projects** in **7 geographies**.



TODAY AND FUTURE CHALLENGES

Cable monitoring has been progressing very fast during the last years, and there is a huge investment into different technologies.

"What is the best? For what purpose?"

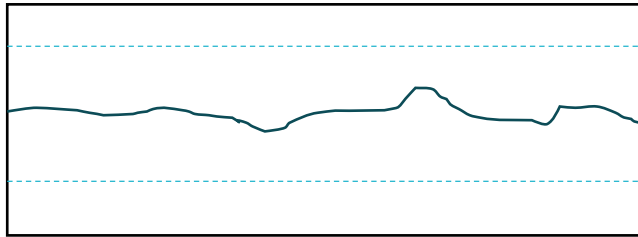
What are we facing as developers?

- Cables contracts are usually signed without a smooth interaction with the supplier of the monitoring systems:
 - This brings the developer to a position in which in many cases the number of optical fibres ordered is just an estimation.
 - These fibres are usually 'standard', and not perfectly in line with the requirements from the monitoring system supplier, leading to extra costs not considered initially. And limited mitigation actions possible during the operation stage.

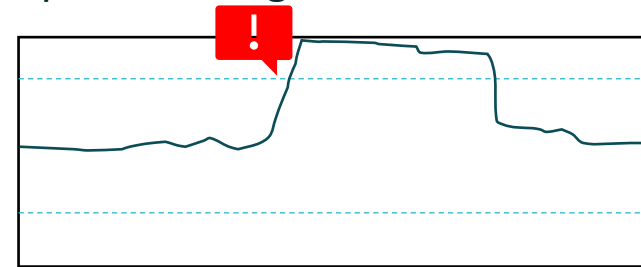
OPPORTUNITIES

The monitoring of these systems is usually based on an alarm-based system:

- If some values are out of range, the O&M team can be aware, and ideally some actions are done.
- However, the severity is usually unknown or inaccurate, and there is no action followed from the O&M point of view, given the high cost of offshore inspections or power outages.



CASE 1 – ALL OK



CASE 2 – VALUE OUT OF RANGE

Cable monitoring through the fibres can provide details of the temperature, surroundings... but it's still not accurate enough in terms of the location:

- CPS systems may have a problem, but the signal is not accurate enough to assess it
- In a dynamic cable, a large amount of accessories are included in a short cable length, and accuracy will be needed

CPS ABRASION PROBLEM

In 2021, several abrasion issues with inter-array cables were globally announced, requiring the replacement of inter-array cables in many different wind farms from different developers.

This has a huge cost impact and there is a big uncertainty on how will this evolve in the future, considering the CPS systems are supposed to protect the cables all over the lifetime of the wind farm (i.e. 30 years).

CPS suppliers are working on improving their designs in order to avoid the problems, some simplifying their technologies, others overengineering the systems.

The problematic is now in different areas:

CPS selection for future wind farms

- Which CPS is best and won't cause issues?
- What studies are needed before installation?

CPS monitorisation over the wind farm lifetime

- CPS cannot be replaced without disconnecting the cables
- How can we effectively monitor the CPS now and in the future?

Insurance issues

- Insurance companies require more warranties on the product due to previous bad experience.

CABLE PROTECTION AND MONITORING SYSTEMS

KEY TAKEAWAYS

- Need for the cable monitoring system supplier and engineer to be involved from the beginning, as part of the tender process for the cable supply
- Need for better use of the data collected from the cable monitoring system to support O&M team
- Need for a cable monitoring focused on CPS area and terminations areas, as this is a clear hot spot and insurance companies and lenders are very keen on it.
- Cable Protection System & Cable Stabilisation systems require further work to ensure that previous and current issues are not repeated.

Industry Champion: ScottishPower Renewables

Teresa Enriquez – Innovation Manager

OWGP – Innovation Grant Industry Programme

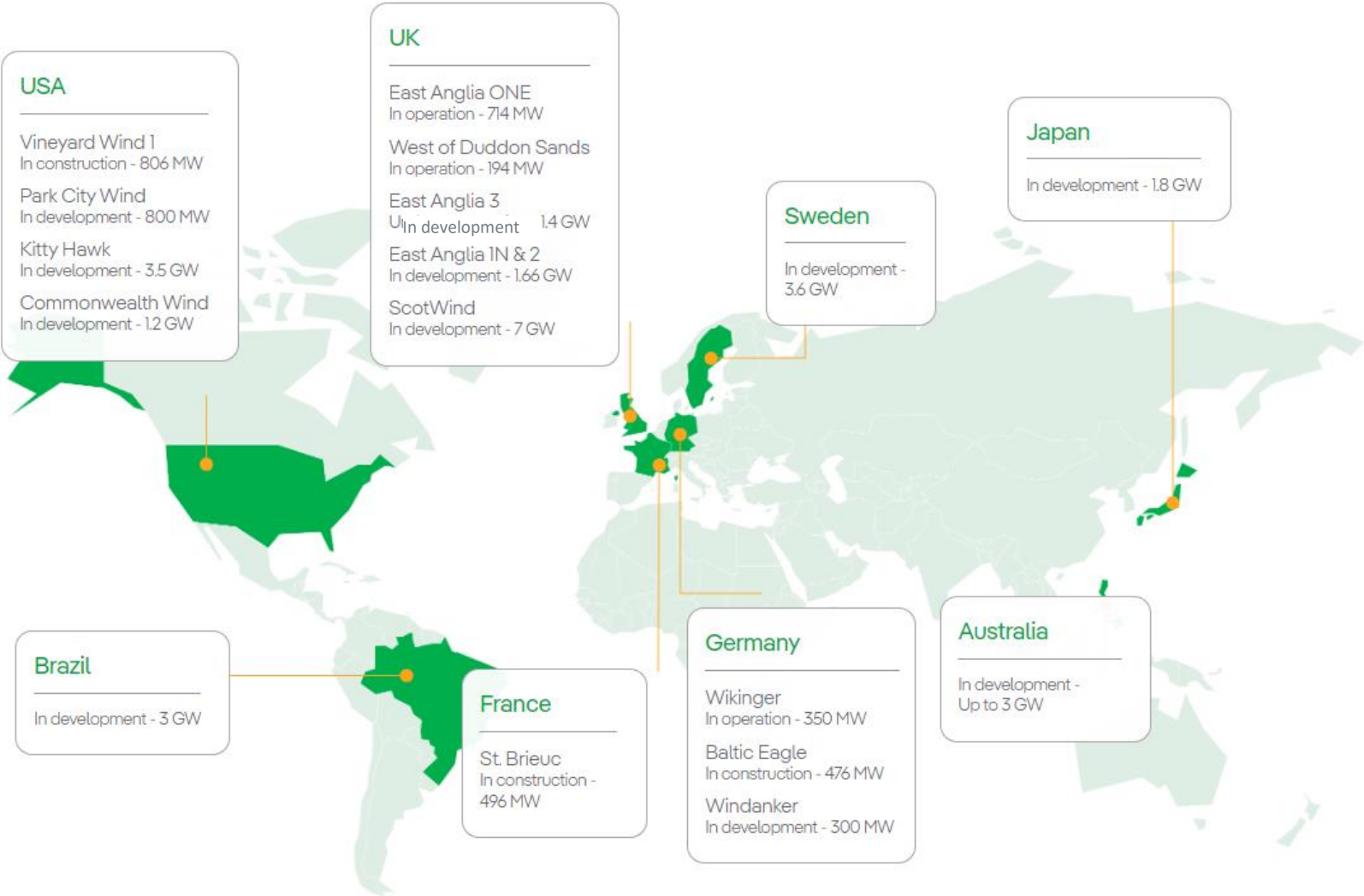
Introduction to ScottishPower Renewables

IBERDROLA PRESENCE AT THE END OF Q1 2024

- **1,3 GW** offshore in Operation,
- **1,8 GW** currently under construction, which will come into operation before the end of 2024.
- **1,7 GW** in development to come into operation before 2027.

4,8 GW close to O&M phase

- **12 GW** in development to come into operation after 2027.



Our largest market is the UK

- In Development
- Under construction
- In Operation

Supporting UK’s Offshore Wind Supply Chain

- For all project stages
- Though all the country
- In all technical areas (electrical equipment, installation methods, etc)



OUR AIM

NUTURING A ROBUST LOCAL SUPPLY CHAIN, ENHANCING ENERGY SECURITY, AND DRIVING ECONOMIC GROWTH WHILE KEEPING THE ENVIRONMENT SAFE

Ensuring a real impact on local communities and employment while allowing industry transformation



Sustainable employment

Developing and upskilling the workforce

Marine and Bird life

Investment in companies working locally

Supply chain

Commitments to investment in local companies

Communities

Communication during key milestones



What do we expect?

1

Bringing forward new and innovative technologies which can enable faster decarbonisation through offshore wind development.

2

Building new relationships and engaging with the supply chain to be at the top of innovation.

3

The OWGP Innovation Grant provides an essential link between innovators and the wider industry in an increasingly competitive market

4

We are looking forward to seeing innovations coming through on a commercial scale.

What are we more interested in?

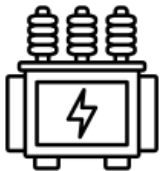
Future Cables and Electrical Systems



- Cable monitoring: damage prediction
- Minimising cable failure in design, installation and operation phase



- Installation, monitoring and maintenance of dynamic cable systems

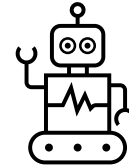


- More sustainable cables: lead and flour free
- Grid Integration and Flexibility (including storage)
- Removing transmission bottlenecks
- Future Energy Systems

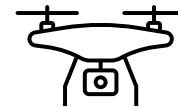
Installation and O&M Technologies



- Installation & Heavy Lift Vessel Supply
- Novel radar and data processing technologies
- Developing technologies for Smart O&M
O&M costs and labour hours required offshore are high and effect costs over a multi-year time horizon.



- O&M robotics (under and above water)
- Bolting robots and tension monitoring solutions
- Autonomous vehicles (surveys and inspection)





Application Process

The Innovation Grant is a single stage application process which is completed online via Microsoft forms.

- The total funding pot available - **£1 million**.
- Grants of between **£25,000** and **£200,000** are available.

Please note that you will **NOT** be able to save and return to your application form

- The application consists of 9 sections with up to 58 questions that will enable OWGP to determine the company and project eligibility
- A finance summary sheet **is required** as part of your application in Section 9 – a copy of the summary sheet can be downloaded from the OWGP website

Application Closing

Date:

Friday 14th June 2024 at
5pm



Offshore Wind Growth Partnership

Innovation Grants
addressing industry innovation areas
in the UK supply chain

Scope & Guidance April 2024

With Industry Champions

OW
OFFSHORE WIND

ScottishPower
Renewables

owgp.org.uk

Funded by
Offshore Wind
Industry Council

Delivered by
CATAPULT
Offshore Renewable Energy



Offshore Wind Growth Partnership

Innovation Grant 2024

The April 2024 Innovation Grant funding call is a single stage application process.

Applicants will have until **14th June 2024 at 5pm** to submit the Application Form via Microsoft Forms.

PLEASE NOTE: You will **NOT** be able to save and return to your application within the form. We strongly recommend that you draft responses to the questions from the Scope & Guidance document before copying into the form for submission.

The Application consists of 9 Sections with up to 58 questions that will enable the OWGP to determine the company and project eligibility.

Please note that a finance summary sheet is required as part of your application, this should be submitted as an appendix in Section 9. The finance summary sheet can be downloaded from the OWGP website.

* Required

Contact Details & Company Information
This section is not scored and is used for information purposes only.

1. Applicant Name *

Enter your answer

2. Applicant Position *

Enter your answer

3. Applicant Email Address *

Enter your answer

4. Applicant Contact Telephone Number *

Evaluation Criteria

Section	Section Content	Guidance	Weighting
Section 1	Contact Details and Company Information	Company contact details are unassessed	0%
Section 2	Tell us about the background to your business and relevant experience	An applicant must have relevant experience or be well suited to deliver in the OSW sector.	5%
Section 3	Tell us about your ambition for growth in offshore wind	Demonstrate clear ambition for growth in the sector and articulate the strengths to be successful	10%
Section 4	Tell us about the market opportunity/challenge(s) that your project addresses	Demonstrate clear understanding of the market opportunity / challenge it is aiming to address	15%
Section 5	How does your project align with the Future Cables and Electrical Systems, and Installation and O&M Technologies innovation priority area(s) in this scope?	Demonstrate alignment with at least one of the innovation priority areas such that it will address challenges in the OSW sector	10%
Section 6	Tell us about your project and how it will unlock business growth in offshore wind	The project must be clearly defined, address the challenges identified and ensure delivery of outputs	20%
Section 7	Financial Summary	Applicant must clearly outline project costs and explain why the proposed project is the most cost-effective method. Applicant must explain how the project would not go ahead or be less effective without OWGP funding	20%
Section 8	What are the expected project outputs in terms of business growth	An applicant must indicate what the impact will be on company growth KPIs: Jobs, turnover, export and IP. Additional justification required for previously supported companies	20%
Section 9	Appendices	Financial Summaries sheets must be submitted	0%*

2024 Innovation Grant – Key Dates

Event	Date
Call Opens	Tuesday 30 th April 2024
Online Briefing Webinar	Thursday 9 th May 2024 from 2:00pm – 3:00pm via Eventbrite
Application deadline	Friday 14 th June 2024 at 5pm
Award Decision	On or before 22 nd August 2024
Project Start Date	All projects must be ready to start on or before 6 th September 2024, with agreed match funding and a project plan.

The online application is now open! You can find the application form [here](#)

Register your interest on the OWGP website to get updates on the latest OWGP announcements [here](#)

Contact Information

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- Claire Canning, Programme Manager – claire.canning@ore.catapult.org.uk