

Funding opportunity

Ecological effects of floating offshore wind

Opportunity status:	Closed
Funders:	Natural Environment Research Council (NERC)
Co-funders:	The Crown Estate (TCE)
Funding type:	Grant
Total fund:	£6,000,000
Maximum award:	£3,750,000
Publication date:	19 January 2024
Opening date:	22 January 2024 9:00am UK time
Closing date:	29 February 2024 4:00pm UK time

Apply for funding to enhance understanding of how marine ecosystems will respond to the planned large-scale expansion of floating offshore wind infrastructure in UK waters in the next decade.

You must be:

- based at a UK research organisation eligible for Natural Environment Research Council (NERC) funding
- in a role that meets the individual eligibility requirements

The full economic cost (FEC) of your project can be up to £3.75 million. We will fund 80% of the FFC.

Projects will be funded for 48 months.

Who can apply

Before applying for funding, check the following:

- NERC eligibility guidance for applicants
- eligibility of your organisation

UK Research and Innovation (UKRI) has introduced new role types for funding opportunities being run on the new UKRI Funding Service. For full details, visit **Eligibility as an individual**.

Who is eligible to apply

This funding opportunity is open to research groups and individuals. We:

- encourage multidisciplinary research and collaborations with other UK organisations
- welcome applications from individuals at any career stage, subject to NERC eligibility criteria, and strongly encourage the inclusion of early career researchers

Your application must include more than one institution, otherwise it will be considered ineligible.

You may be involved in no more than two applications submitted to this funding opportunity. Only one of these can be as project lead.

Project partners fund their own involvement. We will only fund minor incidental expenses, such as some travel costs, if needed for project partners.

International applicants

We do not fund overseas organisations, except for specific costs for project coleads (previously co-investigator) from Norway and the International Institute for Applied Systems Analysis (IIASA). Read more about this in the NERC eligibility guidance for applicants.

You should include all other international collaborators (or UK partners not based at approved organisations) as project partners. This includes organisations from the business or financial sectors.

Equality, diversity and inclusion

We are committed to achieving equality of opportunity for all funding applicants. We encourage applications from a diverse range of researchers.

We support people to work in a way that suits their personal circumstances. This includes:

- career breaks
- support for people with caring responsibilities
- flexible working
- alternative working patterns

Find out more about <u>equality</u>, <u>diversity and inclusion at UKRI</u> and <u>NERC's</u> <u>diversity and inclusion action plan</u>.

What we're looking for

Scope

The demands on marine space in UK waters have never been greater, driven by the need to:

- provide energy security
- develop essential renewable energy infrastructure
- create social and economic value
- ensure the restoration and future resilience of marine biodiversity and ecosystem services

The Ecological Effects of Floating Offshore Wind (ECOFlow) research programme will focus on enhancing understanding of how marine ecosystems will respond to the planned large-scale expansion of floating offshore wind (FLOW) infrastructure in UK waters in the next decade. The programme will address critical evidence needs of government and industry that are required to inform policy and decision making.

Aspirations for offshore wind in the UK are high, both to meet the demands of the British Energy Security Strategy (BESS) and the UK's international climate change obligations as set out by the Committee on Climate Change (CCC). The target within the BESS is to install 5GW of FLOW by 2030, progressing at pace from smaller demonstrator projects to full scale commercial projects in the next five years. Continued growth around the UK is anticipated to 2050, when FLOW installation is expected to account for 50% of the CCC's 125GW target.

While research on ecological effects associated with fixed offshore wind infrastructure in shallower UK coastal seas has grown rapidly in the last two years, significant research gaps remain in understanding the ecological effects associated with FLOW infrastructure in deeper waters offshore. The ECOFlow programme's research will address some of the significant gaps in understanding that have been identified by government and industry (see

'Additional information'), in areas such as the cumulative assessment of the effects of deploying FLOW at scale on marine ecosystems, co-location of FLOW alongside some of the most productive fisheries in UK waters, and understanding the contribution FLOW can make to nature recovery.

The rapidly evolving technological innovations involved with FLOW infrastructure in deeper water environments require a research programme to investigate effects on the marine environment, how these potential effects interact with each other, and pressures from other human activities, to create new and complex challenges for the sustainable development of FLOW.

The ECOFlow programme's three objectives are to:

- develop an enhanced understanding of the novel effects of FLOW infrastructure on marine ecosystems, transform the approach to deploying FLOW infrastructure at scale while maintaining nature recovery, and its coexistence with other users of the sea, particularly fisheries
- utilise autonomous sensing technologies to establish innovative underwater sampling and monitoring approaches within and around the complex infrastructure associated with FLOW
- deliver robust evidence, new approaches and tools that will enable the acceleration of impact in policy and industry, and support government's ambitions in the Celtic Sea off the coasts of South Wales and South West England and the North Sea's Scottish waters for the deployment of FLOW infrastructure, nature recovery and fisheries management

For the purposes of this funding opportunity, the Celtic Sea is defined as the regions off the coasts of South Wales and South West England.

Programme challenges

The programme has three challenges that must be addressed within each application.

Challenge one: understanding the ecological effects of FLOW infrastructure on different trophic levels across critical ecosystem drivers and within the context of climate change

FLOW is a novel technology that is moving from test deployment to commercial scale in a much shorter timescale than fixed offshore wind. It is also being deployed further offshore in areas not suitable for fixed offshore wind, with significantly different infrastructure in water depths up to 250 metres. As such, our understanding of the consequences of FLOW infrastructure on marine ecosystems is limited.

This challenge will require understanding of the effects of critical ecosystem drivers on lower trophic dynamics and supporting processes for higher trophic levels, as well as higher level ecosystem dynamics, for example, between epibenthos, fish, seabirds, and mammals. Projects should look to build on

evidence and understanding of biogeochemical baselines, air-sea gas fluxes and turbulence and mixing to measure, understand and validate the impacts underpinning primary productivity and carbon cycling, as well as any permanent hydrological effects of FLOW. Evidence of impacts of FLOW on primary producers and community structure should be explored to underpin effects on higher trophic levels.

A step change is needed in the development of coupled system models, including ocean-meteorological hydrodynamics, ecosystem, and ecological, for the areas where FLOW is going to be deployed. A range of modelling approaches will be needed to deliver impact into management quickly. Projects should build on existing relevant research programmes, including but not limited to esweets, ECOWind, INSITE, <a href="mailto:mere, and Owec. Consideration should be given to different geographical areas or complementary approaches to accelerate this step change and develop the mechanistic connections to allow true cumulative effects across trophic levels to be assessed.

Research addressing this challenge should seek to understand the impacts and interactions across all trophic levels within the physical, chemical, and ecological footprint of FLOW infrastructure. This could include consideration of:

- bottom-up ecosystem drivers
- aggregation effects
- predator-prey interactions
- population-level distribution
- effects for marine mammals and elasmobranch species of concern, for example benthic and pelagic sharks and rays
- effects on lower trophic levels and the epibenthos

Challenge two: developing new ways to monitor and assess the environmental effects of FLOW infrastructure

NERC's Future Marine Research Infrastructure programme will support marine research with next generation autonomous platform and sensor systems that can operate in challenging marine environments. This challenge will build on this and develop new underwater sampling approaches to leverage innovation in autonomous sensing technologies to sample in, around, and under the complex infrastructure associated with FLOW in support of Challenge one research.

The offshore areas where FLOW is being deployed, and the nature of FLOW infrastructure, present unique technological challenges and opportunities for understanding the marine environment. Complexity arises from the individual turbine level to array or regional scale, which can produce substantially different effects. Projects should look to rapidly advance existing operational techniques and work closely with industry partners to enable their use for underwater sampling in, around and under floating structures. This could include the use of large ships, including those funded by government and industry, alongside

autonomous sampling capability with real time assessment and adaptive capability.

FLOW is at a stage where there are test sites that are already operational, alongside significant planned deployment in areas such as the Celtic Sea, where there is very limited infrastructure associated oil, gas, and the fixed offshore wind industries. Sampling strategies should work with industry partners and, where possible, use existing data sets from industry and government to establish baselines before construction, during construction and during operation to provide long term concurrent data of biology, physics, and other ecological variables.

You will need to take advantage of existing and emerging technologies to develop new ways of monitoring and analysing key variables at the required spatio-temporal scales and frequencies. This could include linking tagging and tracking of marine mammals and elasmobranchs to population modelling and effects of floating structures. New approaches might also include in-situ monitoring within arrays to assess the effects of electromagnetic fields on key benthic and pelagic species, and emerging capability in automated, in situ plankton imaging and classification.

Challenge three: supporting nature recovery and ecologically sustainable development of FLOW infrastructure

The demands on marine space in UK waters have never been greater. With the planned expansion of FLOW, the UK governments and industry need research outcomes from ECOFlow in as short a time as possible to support policy and decision making. This requires the programme, and its projects, to proactively and continually engage with policy makers, regulators, industry, and decision makers to link the outcomes of the ECOFlow research to real world challenges that arise from large scale expansion of FLOW installations. ECOFlow research needs to support the evolution of the UK marine policy landscape to adapt to an expansion of FLOW, including:

- supporting plan and project level environmental assessment
- cumulative effects
- options for spatial and temporal coexistence
- nature recovery and consideration of natural capital approaches within decision making

To address this challenge, you will need to work closely with government and industry to ensure the timely delivery of the robust evidence, and the useful new approaches and tools, that are needed to support ambitions for the deployment of FLOW infrastructure, nature recovery, and sustainable fisheries. As such, partnerships with existing programmes within government, for example Defra, Marine Scotland, and their agencies, The Crown Estate (TCE), and industry are strongly encouraged. For evidence to be used within decision making, there needs to be strong alignment and validation with government, so codevelopment and co-delivery will be required. Similarly, the offshore wind

industry is innovating rapidly, and you should look to engage with developers to understand their challenges and their responses to them.

There is an overarching need to consider nature recovery in the deployment of FLOW infrastructure, including policy areas such as marine net gain (English waters), marine environmental enhancement (Scottish waters) and building resilience of marine ecosystems (Welsh waters). You should, wherever possible, look to consider this as a key impact pathway.

In addition, the opportunities and challenges arising from the coexistence of activities is a rapidly evolving area for the planning of FLOW that applicants could potentially address, considering both the ecological and socioeconomic angles. There are also other areas identified by government and industry (see 'Additional information' section) that applicants may look to address. For example, with fisheries this includes understanding effects on fishing areas due to displacement, development of fishing friendly array design, and understanding effects on fish populations from electromagnetic fields likely to be observed at offshore wind farms. There is also an identified need for provision of guidance regarding marine mammals and elasmobranch species of concern when it comes to mitigation measures for collision and entanglement risk, and an understanding of secondary entanglement scenarios.

Programme outcomes

There are five outcomes that will need to be delivered by the end of the ECOFlow programme and each application is required to clearly outline how proposed research will contribute to these outcomes:

- enhance understanding of ecosystem responses to the cumulative pressures of large-scale deployment of FLOW infrastructure, in combination with other stressors
- provide a sound evidence base to inform decision-making for managing human activity and policy prioritisation associated with the delivery of an expansion of FLOW infrastructure
- demonstrate new innovative underwater sampling approaches for integrated marine observing to inform and support better understanding of the ecologically sustainable management of FLOW infrastructure
- provide a sound evidence base to inform policy and marine management responses in support of government's ambitions in the Celtic Sea off the coast of South Wales and South West England and the North Sea's Scottish waters for the deployment of FLOW infrastructure, nature recovery and fisheries management
- develop long-term relationships between NERC researchers, government, and the FLOW industry, built around rigorous applied research and long-term data management and archiving

For more information on the background of this funding opportunity, go to the 'Additional information' section.

Duration

The duration of this award must be 48 months.

Projects must start by 1 November 2024

Funding available

The FEC of your project can be up to £3.75 million.

The total cost of the project to NERC must not exceed £3 million.

We will fund 80% of the FEC with the following exceptions:

- justified equipment would be funded at 50%
- eligible costs for international project co-lead (previously co-investigator) involvement would be funded at 100%
- National Marine Facilities (NMF) costs will be funded at 100%

NMF costs must be included in the application and will count towards the funding limit. For example, if the NMF costs for supporting proposed ECOFlow research are £400,000, then only £2.6 million will be available to cover the 80% of full economic cost of the project.

The travel and subsistence costs for up to three members of each project team to attend annual programme science meetings should be included in the costs of your application.

It is expected that applications will included dedicate time for early engagement with potential project partners during both the full applications development phase if selected, and if successfully funded. It is expected that brokering agreements with project partners once funded will require dedicated project team resource and this should be factored in to planning. Applications should provide details of how engagement will be undertaken, and resourced, throughout the project. It is anticipated that fieldwork will not take place until the second year of projects, however, early outputs are required and details on how projects intend to engage with industry and government partners and stakeholders to identify meaningful early outputs which will have real-world impact should be included in applications.

ECOFlow is interested in the challenges of planned FLOW deployments in the North Sea's Scottish waters and Celtic Sea off the coasts of South Wales and South West England. Two applications will be funded. Research should be focused on these regions of the Celtic Sea, North Sea or both, while outcomes should be more broadly applicable. At least one application will be funded where the outcomes demonstrate significant applicability to the specific challenges facing planned FLOW deployments in the Celtic Sea off the coast of South Wales and South West England.

What we will not fund

PhD studentship costs

Services and facilities

You can apply to use a facility or resource in your funding application.

You should discuss your application with the facility or service at least two months before the funding opportunity's closing date to:

- discuss the proposed work in detail
- receive confirmation that they can provide the services required within the timeframe of the funding

The facility will provide a technical assessment that includes the calculated cost of providing the service. NERC services and facilities must be costed within the limits of the funding.

You should not submit the technical assessment with the application, but you must confirm you have received it.

For more information, see the <u>NERC research grants and fellowships</u> handbook.

Read the full list of **NERC facilities that require a technical assessment**.

High Performance Computing (HPC), <u>Ship-Time or Marine Equipment (SME)</u> and the large research facilities at Harwell have their own policies for access and costing.

Ship-time and marine facilities

Applications may request NERC ship-time and other marine facilities. Projects will be required to start by 1 November 2024 and will need to factor into their implementation plans that the earliest NERC marine facilities may be available to support research will be sometime in the 2026 to 2027 NERC Marine Facilities programme (year two of funded ECOFlow projects). Projects requesting access to NERC marine facilities should engage with NERC Marine Planning at an early stage in the development of their application. This is to ensure any requested use of NERC's Marine Facilities is realistic as the award of a grant will be subject to NERC marine planning. If a request is not realistic and so implementation plans will be delayed, NERC is unlikely to award an ECOFlow grant.

If you wish to use NERC's marine facilities, you must complete an online 'ship-time and marine equipment (SME) or autonomous deployment (ADF) application form' available from **Marine Facilities Planning**.

Include the SME or ADF number on the 'Facilities' section of your application.

SMEs or ADFs must be submitted to and be approved by NERC Marine Planning by the time your outline funding application is submitted. Your request will be checked for feasibility in the year that access is requested. If it is approved an indicative cost will be provided for inclusion in your outline application. If the request is not considered feasible, amendments will then need to be made to the application or it will be rejected.

A PDF of the SME or ADF can be attached as a facility form to your application. If you do not do this, your request may not be considered for inclusion in the NERC Marine Facilities Programme.

If you intend to apply for NERC's marine facilities, you should contact marineplanning@nerc.ukri.org to discuss ship-time and equipment needs as soon as possible and have submitted your SME or ADF by 13 February 2024.

All requests for marine facilities must be made at the outline funding application stage. No further requests can be made at the full application stage and only minor amendments made to existing requests.

Supporting skills and talent

We encourage you to follow the principles of the **Concordat to Support the Career Development of Researchers** and the **Technician Commitment**.

International collaboration

If your application includes international applicants, project partners or collaborators, visit <u>UK Research and Innovation (UKRI)'s trusted research and innovation</u> for more information on effective international collaboration.

Find out about getting funding for international collaboration.

Responsible research

Through our funding processes, we seek to make a positive contribution to society and the environment. This is not just through research outputs and outcomes but through the way in which research is conducted and facilities managed.

All NERC grant holders are to adopt responsible research practices as set out in the **NERC responsible business statement**.

Responsible research is defined as reducing harm or enhancing benefit on the environment and society through effective management of research activities and facilities. Specifically, this covers:

- the natural environment
- the local community
- equality, diversity and inclusion

You should consider the responsible research context of your project, not the host institution as a whole. You should take action to enhance your responsible research approach where practical and reasonable.

Research disruption due to COVID-19

We recognise that the COVID-19 pandemic has caused major interruptions and disruptions across our communities. We are committed to ensuring that individual applicants and their wider team, including partners and networks, are not penalised for any disruption to their career, such as:

- breaks and delays
- disruptive working patterns and conditions
- the loss of ongoing work
- role changes that may have been caused by the pandemic

Reviewers and panel members will be advised to consider the unequal impacts that COVID-19 related disruption might have had on the capability to deliver and career development of those individuals included in the application. They will be asked to consider the capability of the applicant, and their wider team, to deliver the research they are proposing.

Where disruptions have occurred, you can highlight this within your application if you wish, but there is no requirement to detail the specific circumstances that caused the disruption.

How to apply

Due to the open nature of this funding opportunity and to help manage the level of demand we will use a two-stage application and assessment process:

- submission of an outline application
- invited submission of a full application, if successful at stage one

We are running this funding opportunity on the new UK Research and Innovation (UKRI) Funding Service. You cannot apply on the Joint Electronic Submissions (Je-S) system.

The project lead is responsible for completing the application process on the Funding Service, but we expect all team members and project partners to contribute to the application.

Only the lead research organisation can submit an application to UKRI.

Watch our <u>recording on how to apply for an opportunity in the Funding</u> Service.

To apply

Select 'Start application' near the beginning of this Funding finder page.

- 1. Confirm you are the project lead.
- 2. Sign in or create a Funding Service account. To create an account, select your organisation, verify your email address, and set a password. If your organisation is not listed, email <u>support@funding-service.ukri.org</u> Allow at least 10 working days for your organisation to be added to the Funding Service.
- 3. Answer questions directly in the text boxes. You can save your answers and come back to complete them or work offline and return to copy and paste your answers. If we need you to upload a document, follow the upload instructions in the Funding Service. All questions and assessment criteria are listed in the 'How to apply' section on this Funding finder page.
- 4. Allow enough time to check your application in 'read-only' view before sending to your research office.
- 5. Send the completed application to your research office for checking. They will return it to you if it needs editing.
- 6. Your research office will submit the completed and checked application to UKRI.

Where indicated, you can also demonstrate elements of your responses in visual form if relevant. You should:

- use images sparingly and only to convey important information that cannot easily be put into words
- insert each new image onto a new line
- provide a descriptive legend for each image immediately underneath it (this counts towards your word limit)
- ensure that files are smaller than 5MB and in JPEG, JPG, JPE, JFI, JIF, JFIF, PNG, GIF, BMP or WEBP format

Watch our research office webinars about the new Funding Service.

For more guidance on the Funding Service, see:

- how applicants use the Funding Service
- how research offices use the Funding Service
- how reviewers use the Funding Service

Deadline

We must receive your outline application by 29 February 2024 at 4:00pm UK time.

You will not be able to apply after this time. Make sure you are aware of and follow any internal institutional deadlines.

Following the submission of your application to the funding opportunity, your application cannot be changed, and applications will not be returned for amendment. If your application does not follow the guidance, it may be rejected.

Personal data

NERC, as part of UKRI, will need to collect some personal information to manage your Funding Service account and the registration of your funding applications.

We will handle personal data in line with UK data protection legislation and manage it securely. For more information, including how to exercise your rights, read <u>our privacy notice</u>.

NERC, as part of UKRI, will need to share the application and any personal information that it contains with The Crown Estate so that they can participate in the assessment process. For more information on how The Crown Estate use personal information, visit the **Privacy statement** on their website.

Publication of outcomes

NERC, as part of UKRI, will publish the outcomes of this funding opportunity on **What NERC has funded**.

If your application is successful, we will publish some personal information on the **UKRI Gateway to Research**.

Summary

Word count: 550

In plain English, provide a summary that we can use to identify the most suitable experts to assess your application.

We may make this summary publicly available on external-facing websites, so make it suitable for a variety of readers, for example:

- opinion-formers
- policymakers
- the public
- the wider research community

Guidance for writing a summary

Clearly describe your proposed work in terms of:

- context
- the challenge the project addresses
- aims and objectives
- potential applications and benefits

Core team

List the key members of your team and assign them roles from the following:

- project lead (PL)
- project co-lead (UK) (PcL)
- project co-lead (international) (PcL (I))
- specialist
- grant manager
- professional enabling staff
- research and innovation associate
- technician
- visiting researcher
- researcher co-lead (RcL)

Only list one individual as project lead.

The project lead is responsible for completing the application process on the Funding Service.

It is expected that the outline application will only include the core leadership team, including key non-academic partners and collaborators. Should you be invited to submit a full application, this should be expanded upon.

The PcL (I) role should only be used for applications making use of the <u>UKRI-RCN Money Follows Cooperation agreement</u> or the <u>UKRI-IIASA agreement</u>. We do not otherwise accept project co-lead (international) applicants.

Find out more about **UKRI's new grant roles**.

Application questions

Vision

Word count: 1,000

What are you hoping to achieve with your proposed work?

What the assessors are looking for in your response

Explain how your proposed work:

• is of excellent quality and importance within or beyond the field(s) or area(s)

- has the potential to advance current understanding, or generate new knowledge, thinking or discovery within or beyond the field or area
- is timely given current trends, context, and needs
- impacts world-leading research, society, the economy, or the environment

Within the Vision section we also expect you to:

- address all three of the programme's challenges and clearly demonstrate how proposed research will contribute to the programme's outcomes
- have a distinct focus on the interactions between the deployment of floating offshore wind (FLOW) infrastructure at scale and different populations of key species, such as marine mammals, fish, elasmobranchs and in benthic communities, and the critical ecosystem drivers that may influence their distribution
- investigate habitats, species, and physical and biogeochemical processes that are critical for sustained ecosystem functioning, service provision and resilience at different trophic levels and at suitable spatiotemporal scales
- focus research on the deployment of FLOW infrastructure in one or both of the defined regions of UK waters, specifically in the Celtic Sea and North Sea, with outcomes that are more broadly applicable
- focus on research outcomes that will directly contribute to evidence requirements that have been identified by government and industry bodies (see 'Additional information' section)
- include strong collaboration with existing government and industry initiatives in the defined regions of the Celtic Sea and North Sea to ensure that existing data collection, research, site access opportunities and other in-kind contributions are capitalised on, and that pathways to impact with these endusers of research outcomes are well defined
- identify the potential direct or indirect benefits and who the beneficiaries might be

Applications should include explicit consideration of leveraging existing investment through the Offshore Wind Evidence and Change programme in the Celtic Sea, and ScotMER in the North Sea's Scottish waters, as well as project and regional level industry investment.

You may demonstrate elements of your responses in visual form if relevant. Further details are provided in the 'How to apply' section.

Approach

Word count: 1,000

How are you going to deliver your proposed work?

What the assessors are looking for in your response

Explain how you have designed your approach so that it:

- is effective and appropriate to achieve your objectives
- is feasible, and comprehensively identifies any risks to delivery and how they will be managed
- uses a clearly written and transparent methodology (if applicable)
- summarises the previous work and describes how this will be built upon and progressed (if applicable)
- will maximise translation of outputs into outcomes and impacts
- describes how your, and if applicable your team's, research environment (in terms of the place and relevance to the project) will contribute to the success of the work

Within the Approach section we also expect you to:

- define realistic short-term research deliverables in support of government and industry needs that can be achieved within the first two-years of the project and define legacy plans to ensure the benefits of the project outlive the funded project
- demonstrate how your research outcomes will have a broader geographical relevance including examples
- demonstrate you have realistic access, at the times required, to the appropriate services, facilities, infrastructure, or equipment to deliver the proposed work

You may demonstrate elements of your responses in visual form if relevant. Further details are provided in the 'How to apply' section.

Applicant and team capability to deliver

Word count: 1,500

Why are you the right individual or team to successfully deliver the proposed work?

What the assessors are looking for in your response

Evidence of how you, and if relevant your team, have:

- the relevant experience (appropriate to career stage) to deliver the proposed work
- the right balance of skills and expertise to cover the proposed work
- the appropriate leadership and management skills to deliver the work and your approach to develop others
- contributed to developing a positive research environment and wider community

You may demonstrate elements of your responses in visual form if relevant. Further details are provided in the 'How to apply' section.

The word count for this section is 1,500 words, 1,000 words to be used for R4RI modules and, if necessary, a further 500 words for Additions.

Use the Résumé for Research and Innovation (R4RI) format is required to showcase the range of relevant skills you and, if relevant, your team (project-lead and project co-leads, researchers, technicians, specialists, partners and so on) have and how this will help deliver the proposed work. You can include individuals' specific achievements but only choose past contributions that best evidence their ability to deliver this work.

Complete this section using the R4RI module headings listed. Use each heading once and include a response for the whole team, see the <u>UKRI</u> <u>guidance on R4RI</u>. You should consider how to balance your answer, and emphasise where appropriate the key skills each team member brings:

- contributions to the generation of new ideas, tools, methodologies, or knowledge
- the development of others and maintenance of effective working relationships
- contributions to the wider research and innovation community
- contributions to broader research or innovation users and audiences and towards wider societal benefit

Additions

Provide any further details relevant to your application. This section is optional and can be up to 500 words. You should not use it to describe additional skills, experiences, or outputs, but you can use it to describe any factors that provide context for the rest of your R4RI (for example, details of career breaks if you wish to disclose them).

Complete this as a narrative. Do not format it like a CV.

UKRI has introduced new role types for funding opportunities being run on the Funding Service.

For full details, see **Eligibility as an individual**.

Facilities

Word count: 250

Does your proposed research require the support and use of a facility?

What the assessors are looking for in your response

If not, enter 'N/A' into the text box, mark this section as complete and move on to the next section.

If you will need to use a facility, you should follow your proposed facility's normal access request procedures. Where prior agreement is required, ensure

you obtain their agreement that, should you be offered funding, they will support the use of their facility on your project.

In the text box, for each requested facility you should provide under the following headings:

- facility name: the name of facility, copied and pasted from <u>facility</u> <u>information list (DOCX, 37KB)</u>
- usage: the proposed usage time or costs, or costs per unit where indicated on that list
- confirmation you have their agreement where required

Do not put the facility contact details in your response.

If you have to attach a facility form (for example, NERC ship-time and marine equipment or Antarctic logistics), then upload it as a PDF. If you need to upload multiple forms, then combine them into a single PDF.

Upload guidance

Upload a single PDF containing facility forms ensuring it is no larger than 8MB, if applicable.

For the file name, use the Funding Service number the system gives to your application - when you create an application – immediately followed by the words 'facility forms'. Then use the 'Upload' button.

Unless specifically requested, do not include any personal data within the attachment.

Once you have uploaded, mark this section as complete and move to the next one.

How we will assess your application

Assessment process

We will assess your application using the following process.

Stage one: outline application

Outline applications will be assessed by a panel comprised of independent experts with expertise spanning the breadth of the funding opportunity remit to ensure that due consideration is given to all applications.

It is expected that the outline application will only include the core leadership team, including key non-academic partners and collaborators. Should you be invited to submit a full application, this should be expanded upon.

The independent panel will rank the applications based on the published assessment criteria. The funders will decide, based on the advice of the panel, which applications to invite to submit a full application. The funders are aiming to fund a balanced portfolio across the programme that best address the overarching aims of the programme.

Panel feedback will be provided following the outline stage and within one month of the closing date to all applicants by email.

If your application is successful at the outline stage, and you are invited to submit a full application, then it is expected that new collaborators may be added, and you will be able to add further detail to your application. Note that significant changes to the vision of the application and the core leadership will not be allowed between the outline and full application stages.

We encourage the addition of further collaborators and project partners between outline and full application stage. Upon completion of the outline stage details of those invited to full application stage will be published on the UKRI website. The intention is that potential interested collaborators can get in touch with the projects to develop potential partnerships.

Stage two: invited full application and expert interview panel

Stage two of this funding opportunity will be run on the new UKRI Funding Service.

If you are successful at the outline stage, then you will be invited to submit a full application. The closing date for full applications will be 16 May 2024. More information will be provided to those applicants following the outline application stage.

Up to six applications will be shortlisted to submit a full application. However, we reserve the right to modify this approach should circumstances change.

Shortlisted applications will be invited to an interview by an independent panel of experts in July 2024.

Full details of the interview process will be sent to candidates before the interviews. The interview will help the panel assess the applications against the assessment criteria. The panel will then recommend the ranking of the applications, taking into account the outcomes of the assessment and the need to fund a balanced portfolio of projects that address the challenges and outcomes of the Ecological Effects of Floating Offshore Wind (ECOFlow) programme.

The panel may recommend conditions for the funders to impose before funding is awarded. Based on the panel's recommendations, the funders reserve the right to seek further information from the applicants before awarding funding.

Feedback will be provided following interviews.

In the event of this funding opportunity being substantially oversubscribed as to be unmanageable, the funders reserve the right to modify the assessment process.

Principles of assessment

We support the <u>San Francisco declaration on research assessment</u> and recognise the relationship between research assessment and research integrity.

Find out about the **UKRI** principles of assessment and decision making.

We reserve the right to modify the assessment process as needed.

Sharing data with co-funders

We will need to share the application, including any personal information that it contains, with The Crown Estate so that they can participate in the assessment process.

For more information on how The Crown Estate uses personal information, visit **privacy statement on their website**.

Assessment criteria

The criteria against which your application will be assessed are:

- vision
- approach
- applicant and team capability to deliver

Find details of assessment questions and criteria under the 'Application questions' heading in the 'How to apply' section.

Contact details

Get help with your application

If you have a question and the answers aren't provided on this page

Important note: The Helpdesk is committed to helping users of the UK Research and Innovation (UKRI) Funding Service as effectively and as quickly as possible. In order to manage cases at peak volume times, the Helpdesk will triage and prioritise those queries with an imminent opportunity deadline or a

technical issue. Enquiries raised where information is available on the Funding Finder opportunity page and should be understood early in the application process (for example, regarding eligibility or content/remit of an opportunity) will not constitute a priority case and will be addressed as soon as possible.

Contact details

For help and advice on costings and writing your application please contact your research office in the first instance, allowing sufficient time for your organisation's submission process.

For questions related to this specific funding opportunity please contact ecoflow@nerc.ukri.org

Any queries regarding the system or the submission of applications through the Funding Service should be directed to the helpdesk.

Email: support@funding-service.ukri.org

Phone: 01793 547490

Our phone lines are open:

- Monday to Thursday 8:30am to 5:00pm
- Friday 8:30am to 4:30pm

To help us process queries quicker, we request that users highlight the council and opportunity name in the subject title of their email query, include the application reference number, and refrain from contacting more than one mailbox at a time.

You can also find information on **<u>submitting an application</u>**.

Sensitive information

If you or a core team member need to tell us something you wish to remain confidential, email the Funding Service helpdesk on support@funding-service.ukri.org

Include in the subject line: Ecological effects of floating offshore wind; sensitive information; your Funding Service application number

Typical examples of confidential information include:

- individual is unavailable until a certain date (for example due to parental leave)
- declaration of interest
- additional information about eligibility to apply that would not be appropriately shared in the 'Applicant and team capability' section

 conflict of interest for UKRI to consider in reviewer or panel participant selection

For information about how UKRI handles personal data, read <u>UKRI's privacy</u> notice.

Additional info

Background

Implementation and delivery

The implementation and delivery of the programme will be overseen by the ECOFlow Programme Executive Board, which will be chaired by NERC and include representatives of The Crown Estate. The Board will be supported by:

- a Programme Advisory Group (PAG)
- the ECOFlow Champion

Following the outline application stage, it is anticipated that the ECOFlow Champion will, on behalf of the Programme Executive Board, facilitate the codevelopment of full project applications, bringing together those invited to develop full applications with both policy and other stakeholder representatives.

This facilitation process is designed to avoid key stakeholders being overwhelmed by approaches from the research community. As such researchers are asked to not actively engage at the outline application stage with the stakeholders who have been contacted by the ECOFlow Champion and have provided a <u>response and declared an interest</u> in engaging with the Ecological Effects of Floating Offshore Wind (ECOFlow) programme.

The ECOFlow research focus has been informed, in part, by the research challenges laid out in the Offshore Renewable Energy (ORE) Catapult's Floating Offshore Wind Centre of Excellence (CoE) environmental and fisheries roadmap. The ORE CoE has declared an interest in becoming a programme partner and potentially providing supplementary funding in support of research with industry that aligns with the challenges laid out in their roadmaps. This would add value and create more impact for ECOFlow while also supporting the delivery of their ORE CoE roadmaps. The process for this, and the extent of the support available to successful projects, is to be agreed and will only be available to the projects which are awarded as a result of this funding opportunity.

Full applications must include a work plan for 48 months. It must be submitted in a modular format separated into a number of defined work packages, including costs for each work package outlined in the justification of resources. Some work packages may be higher risk than others.

Work packages should highlight any anticipated significant risks to work packages, and outline how these will be managed. If any higher risk work packages ultimately fail, there will be the opportunity for researchers to propose adjustments to their science plans if time and remaining unspent funds allow.

The progress of funded ECOFlow projects against agreed milestones and deliverables will be assessed throughout the lifetime of projects. Reviews of progress by the PAG will take place every six months, and at a mid-term review in autumn 2025. The mid-term review will also assess the proposed work plans, including proposed well-defined milestones and deliverables, for the final phase of projects.

Information on the level of detail and content covered in project's progress reports will be provided by the ECOFlow Champion in advance of the sixmonthly and mid-term review meetings. Progress reports will need to include a section where information is provided on actions taken (if any) as a result of previous advice or recommendations from the PAG or the ECOFlow Champion.

The outcome of these reviews may lead to changes by the Programme Executive Board in previously agreed milestones and deliverables in order to ensure that the programme stays on track to deliver required outcomes.

If any project fails to pass the mid-term review, the Programme Executive Board may decide to terminate the award at the 30-month point. In the event that a project is terminated, its remaining work plan and milestones and deliverables for the final six months will need to be revised and agreed by the board, following input from the PAG and ECOFlow Champions.

Projects that do pass the mid-term review will continue their work for up to a further 24 months and may be subject to some new milestones and deliverables as agreed by the Programme Executive Board.

For information on The Crown Estate's floating offshore wind (FLOW) leasing round in the Celtic Sea, please refer to the Round 5 Information Memorandum and supporting documents. These are available via The Crown Estate's website, within the Document Library.

For information on projects within The Crown Estate's Offshore Wind Evidence and Change (OWEC) programme, please refer to the <u>OWEC page</u> on The Crown Estate's Marine Data Exchange. Of particular relevance to the Celtic Sea are the seabird and marine mammal <u>surveys being conducted by the POSEIDON project</u>.

Our commitment to the principles of the Modern Slavery Act 2015

Modern slavery is a crime and a violation of fundamental human rights. It takes various forms which deprive a person of their liberty in order to exploit them for personal or commercial gain, such as:

- slavery
- servitude
- human trafficking
- forced and compulsory labour

We are committed to the principles of the Modern Slavery Act 2015, and the abolition of modern slavery and human trafficking.

Guidance on good research

Good research resource hub

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https://www.ukri.org/opportunity/ecological-effects-of-floating-offshore-wind-ecoflow