



Department for  
Business, Energy  
& Industrial Strategy

# Floating Offshore Wind Manufacturing Investment Scheme

Request for Information

Closing date: 15 July 2022



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Any enquiries regarding this publication should be sent to us at: [FLOWMIS@beis.gov.uk](mailto:FLOWMIS@beis.gov.uk)

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# Introduction

The UK is already a global leader in offshore wind with the most installed capacity in Europe. Offshore wind provides affordable, secure, domestically generated electricity and will play a key role in decarbonising the UK power system by 2035, achieving net zero by 2050.

Building on our success, we announced in the British Energy Security Strategy our increased ambition to deliver up to 50GW of offshore wind by 2030, including up to 5GW of innovative floating wind and we anticipate further rapid expansion through the 2030s and beyond.

15GW of seabed potential has been awarded through the ScotWind leasing round earlier this year and a further 4GW has been announced by the Crown Estate to be leased in the Celtic Sea, which could see rights awarded by the end of 2023.

However, the UK needs further investment to improve capacity and capability (both in terms of manufacturing and infrastructure) to deploy and service the scale of the floating offshore wind pipeline. In particular, the UK needs port facilities combining a substantial depth of water with the heavy-lift capacity and the extensive quayside space needed to deliver on these ambitions at the scale of deployment required. Our sector engagement and intelligence to date suggests that these features are required to enable the serial fabrication, marshalling, assembly, and transport of floating offshore wind turbines, particularly for foundations that could each weigh thousands of tonnes and require significant space.

The 15GW announced through the ScotWind leasing round and 4GW to be leased in the Celtic Sea alone could require well over one thousand foundations, presenting the UK with a huge opportunity to establish a world leading sector capable of bringing down technology costs and delivering floating offshore wind at scale.

Upgrading the UK's infrastructure and manufacturing capability is likely to need large up-front capital expenditure prior to the date that revenues start to accrue from floating offshore wind projects. In light of this, the Prime Minister announced on 30 October 2021 that up to £160 million will be made available for investment in port and manufacturing developments that bring us closer to the scaled-up deployment of floating offshore wind, to meet our deployment ambition and wider net zero objectives.

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# General information

## Why we are requesting information

We are requesting information from the following stakeholders to better understand the risks constraints and opportunities available in the UK and how we can most effectively use this capital investment:

- Port Developers.
- Floating Wind Foundation Designers and Fabricators.
- Component and Sub-Component Manufacturers.
- Floating Offshore Wind Developers and Engineering, Procurement, Construction and Installation (EPCI) Contractors.
- Sectoral Bodies, Trade Associations, Academics, and Others.

We intend to use this Request for Information – in addition to public domain research and our own internal analysis, sector engagement, and market intelligence – to inform the feasibility and the design of our intended Floating Offshore Wind Manufacturing Investment Scheme (FLOWMIS). We may also use the information to inform our wider offshore wind policy outside of FLOWMIS.

## How to respond

This Request for Information will remain open for 8 weeks, from 20 May to 15 July 2022. During the Request for Information period the policy team may request to hold further discussion around information provided and may request further details relating to information provided. We would encourage applicants to engage early in the process to ensure sufficient time for discussion with the policy team. All communication and engagement with the policy team can be arranged through [FLOWMIS@beis.gov.uk](mailto:FLOWMIS@beis.gov.uk).

Respondents are encouraged to provide information relating to the relevant fields outlined from page 8 onwards but do not need to answer every question and are welcome to respond under whichever heading they see fit, and to supply any information or supporting documentation that they deem pertinent (whether or not mentioned in this document).

All information will be managed in line with confidentiality and data protection requirements outlined below and within the supporting privacy notice. There will be no published response to information provided given the commercially sensitive nature of the information requested.

Please provide all information as a Microsoft Word or PDF attachment, and please represent any financial information in £ sterling. All responses should be sent to [FLOWMIS@beis.gov.uk](mailto:FLOWMIS@beis.gov.uk) with the subject heading 'Request for Information Response – [company or project name]'. Please include contact details for follow up discussions.

We will provide further information relating to the timings of launch of the full scheme as well as the scheme criteria, in due course.

**Email to:** [FLOWMIS@beis.gov.uk](mailto:FLOWMIS@beis.gov.uk)

## Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the UK General Data Protection Regulation (UK GDPR), the Data Protection Act 2018 and the Environmental Information Regulations 2004).

If you want the information that you provide to be treated as confidential, please tell us but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request.

We will process your personal data in accordance with all applicable data protection laws as outlined in the privacy policy.

# Information requested

We are seeking responses from but not limited to the following stakeholder groups:

- Port Developers
- Floating Wind Foundation Designers and Fabricators
- Component and Sub-Component Manufacturers
- Floating Offshore Wind Developers and EPCI Contractors
- Sectoral Bodies, Trade Associations, Academics, and Others

## A. Port Developers

We are interested in understanding any floating offshore wind specific developments that you may be planning, as well as how these developments could enhance your facility's current capabilities and contribute to a regional and/or national infrastructure base capable of deploying floating offshore wind at significant scale.

We are interested in further information relating to the points outlined below but welcome any further information that you believe may be of interest.

### **1. What are the technical capabilities of current facilities and of proposed upgrades?**

Answers should encompass details of existing site(s) and details of proposed development, including:

- Navigational channel depth
- Quay length
- Depth at quay
- Load-bearing capacity of quay
- Number of berths available
- Size of slipway(s) available
- Crane(s) height and lift capacity
- Quayside laydown space available
- Other land area available for development
- Any other details of relevance

### **2. What is the estimated CapEx requirement of the proposal? Are there any market failures or barriers to entry that would prevent the raising of this CapEx? What**



**level and type of Government support could be necessary to make the development viable and why is Government support needed?**

- 3. What is the estimated construction timeline and operational readiness date? Please provide in the form of a Gantt chart or project plan if this is available and outline any delivery risks and mitigation plans.**
- 4. The sector has indicated that it is very unlikely that one port will be able to manage every step or phase in the floating offshore wind deployment chain. In light of this do you have plans to collaborate with other port operators or developers to enable a multi-port delivery model? Are you looking at formal partnerships with other ports (for instance, joint ventures or special purpose vehicles)?**
- 5. Which role(s) in the floating offshore wind deployment process would the development address (e.g., fabrication, marshalling, assembly), and how could plans feed into a wider regional or national floating offshore wind deployment process? Ideally, we would like to understand:**
  - Where inputs to process would be coming from and where outputs from process would be going (e.g., modular foundation components sourced from location X, assembled on site, towed for storage at location Y, and integrated with turbine at location Z).
  - Quantification of outputs (e.g., the number of modular components per annum, the number of assembled foundations per annum).
- 6. What level of commercial engagement with developers, EPCI Contractors and manufacturers you have had in relation to the proposed development, and how does this engagement affect the financial viability of the proposed development?**
- 7. What is the proposed business model planned for the development and how will this model work in the interim, given that the floating offshore wind pipeline is expected to solidify in the late 2020s and early 2030s? Are you planning to solicit other sources of revenue in the time before floating offshore wind operations commence? How do these factors affect the financial viability of the proposed development?**
- 8. How many jobs could be created or safeguarded at any facility that you may be planning, including at ramp-up and at peak operation? What assessment have you undertaken around the availability of the required skills in the area local to the proposed development?**
- 9. Please provide any further information that you think may be of interest.**

## B. Floating Wind Foundation Designers and Fabricators

In order to identify the opportunities to deliver foundations at the scale and pace to deliver on our deployment and net zero ambitions we are interested in understanding potential opportunities for the manufacture, fabrication, and assembly of floating foundations in the UK and wider requirements for specific foundation designs.

We are interested in further information relating to the points outlined below but welcome any further information that you believe may be of interest.

- 1. What assessment have you made of the facilities and infrastructure required in the UK for the manufacture, fabrication, and assembly of floating offshore wind foundations? Answers should encompass:**
  - Port water depth requirements
  - Quayside space and access requirements
  - Quay load-bearing capacity requirements
  - Proximity to raw materials
  - Any other details of relevance
  
- 2. What are the key drivers behind any such requirements, including for instance the size and mass of the foundations, as well as the dynamics of the fabrication, assembly and construction process itself?**
  
- 3. What level of commercial interest does your foundation design or fabrication proposal currently have with developers? What contracts or agreements do you have in place, whether confirmed or in early stages of discussions?**
  
- 4. Do you have any specific plans to develop or expand fabrication or manufacturing facilities? Where applicable, please include potential locations either confirmed or being considered, indicative dates for FID, the start of construction, and the start of operations.**
  
- 5. What are the CapEx requirements of any facility that you may be planning? Are there any market failures or barriers to entry that would prevent the raising of this CapEx? What is your estimate of the level and kind of Government support that could be necessary to make the project viable and why is Government support needed?**
  
- 6. How many jobs could be created or safeguarded at any facility that you may be planning, including at ramp-up and at peak operation? What assessment have you undertaken around the availability of the required skills in any locations of interest?**

- 7. What assessment has been made of the required skills and the availability of those skills in any locations being considered?**
- 8. Please provide any further information that you think may be of interest.**

## C. Component and Sub-Component Manufacturers

We are interested in understanding your plans for the manufacture of non-foundation components and sub-components for floating offshore wind, and how these plans take advantage of and/or supplement existing UK industrial and logistical capabilities.

We are interested in further information relating to the points outlined below but welcome any further information that you believe may be of interest.

- 1. What component or sub-component are you proposing to manufacture to support the deployment of floating offshore wind?**
- 2. What do you assess as the market for your product? Please include information relating to the potential for export and any current commercial traction?**
- 3. Why are you considering the UK as a location for your facility and how advanced are discussions with potential locations for proposed facilities?**
- 4. What are the CapEx requirements of any facility that you may be planning? Are there any market failures or barriers to entry that would prevent the raising of this CapEx? What is your estimate of the level and kind of Government support that could be necessary to make the project viable and why is Government support needed?**
- 5. How many jobs could be created or safeguarded at any facility that you may be planning, including at ramp-up and at peak operation? What assessment have you undertaken around the availability of the required skills in any locations of interest?**
- 6. What assessment has been made of the required skills and the availability of those skills in any locations being considered?**
- 7. Please provide any further information that you think may be of interest.**

## D. Floating Wind Developers and EPCI Contractors

We are interested in understanding your plans for the deployment of floating offshore wind and how these plans take advantage of and/or supplement existing UK industrial and logistical capabilities.

We are interested in further information relating to the points outlined below but welcome any further information that you believe may be of interest.

**1. What are your plans for negotiating the process, logistics and geography of floating offshore wind deployment, from primary manufacturing through to installation and operations and maintenance (O&M)? This may encompass:**

- Sourcing of foundation modular components
- Whether your plan relies on the UK maintaining capability in both steel and concrete foundation technologies
- Location of foundation assembly, and/or indication of any geographical or logistical constraints on e.g., the distance between fabrication and assembly locations, or the distance between assembly, storage, and integration locations
- Mode and location of foundation storage. (i.e., wet vs dry)
- Planned mode of integration. (i.e., at quayside, in dry dock, by harbour-stationed Jack Up Vessel)
- Maximum feasible tow distance from integration site to wind farm site that your plan can sustain
- Approach to O&M (i.e., at-port, or at-sea), and potential O&M site, where applicable
- Any other details of relevance

**2. What are the infrastructure requirements of your planned projects' deployment plans (broken down by process stage)? This could encompass:**

- Required navigational channel width, depth, and ceiling (air clearance to bridges, transmission lines, etc)
- Required depth, length, and number of berths
- Maximum vessel length, beam, and draught to be serviced
- Required resources and amenities: space (existing and for future development), road and rail access, crane capacity, dry docks, etc
- Necessary proximity to skilled labour
- Necessary proximity to raw resources (e.g., aggregates, cementitious products)
- Any other details of relevance

- 3. How do you plan to arrange and secure the multi-port delivery model that floating wind deployment is likely to require and what level of investment are you prepared to support to enable this? Are you in discussions with any port developers or manufacturers around investment or other forms of collaborative approaches to enabling investment in infrastructure and/or manufacturing or fabrication facilities?**
- 4. What are your timelines for the investment decisions underpinning your deployment plan? For example, when do you expect to make final decisions on foundation type, port locations, O+M approach etc.?**
- 5. Please provide any further information that you think may be of interest.**

## **E. Sectoral Bodies, Trade Associations, Academics, and Others**

We are interested in any further information relating to the deployment of floating offshore wind in the UK and how we could best use the funding available through FLOWMIS to maximise UK industrial and logistical capabilities.

We are interested in further information relating to the points outlined below but welcome any further information that you believe may be of interest.

- 1. What constraints, risks and opportunities does the UK face in relation to the infrastructure requirements needed to meet the deployment ambition for floating offshore wind?**
- 2. What constraints, risks and opportunities does the UK face in relation to the manufacture, fabrication and assembly requirements needed to meet the deployment ambition for floating offshore wind?**
- 3. Please provide any further information that you think may be of interest.**

**We have included an excel document detailing current understanding of the subsea supply chain supporting floating offshore wind foundation manufacturing. We are seeking strategic views from the sector and supply chain, such as trade associations, regional agencies/bodies, regional/local industry clusters and companies currently operating or with plans to operate in the supply chain to better understand the UK's current capability and future capability requirements.**

## Legal Notice

Please note that answering this Request for Information will not guarantee the respondent access to future Government funding nor is it a guarantee that the Government will provide any funding whatsoever for floating offshore wind in the future. Respondents respond at their own cost.

Any funding that is made available in the future in respect of FLOWMIS would be subject to relevant terms and conditions as well as Government approval processes, assessment and confirmation of the value for money represented by potential projects.

At this stage, any information provided to BEIS is submitted on an indicative basis. If BEIS proceeds with a future scheme, a set of evaluation criteria, against which all proposals will be scrutinised will be communicated to all interested parties at this point.

If FLOWMIS does go ahead, the assessment processes will be rigorous, in order to ensure value for money and that Government support is both required and likely to be effective. As an indication of the type of material that may be required at this later stage, information typically needed to appraise and scrutinise proposals includes detailed technical specifications of proposals and envisaged commercial models, project plans, and evidence of firm tenant interest. Applicants will normally also need to share a wide range of financial accounts including management accounts, financial forecasts and statutory accounts.

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This request for information is available from: [www.gov.uk/government/consultations/floating-offshore-wind-manufacturing-investment-scheme-request-for-information](https://www.gov.uk/government/consultations/floating-offshore-wind-manufacturing-investment-scheme-request-for-information)

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