Kingfisher Talking points

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seafish
Kingfisher
Information Service

In this issue:

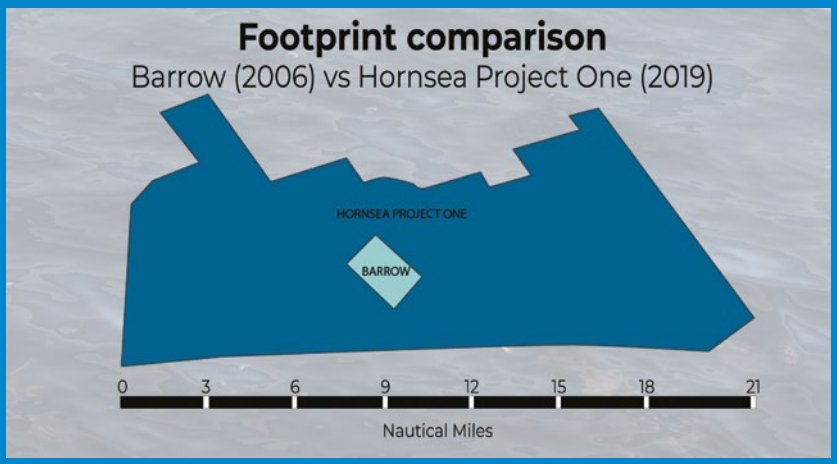
Winds of change: what you need to know

We've all heard that the UK has the world's largest wind farm, but what's different about the latest turbines and farms? How do they compare with the earliest farms and does that matter to fishing?

The offshore wind industry is growing at a dazzling rate – capacity in Europe is set to quadruple by 2030. Though the exact facts and figures around the latest farms and turbines may not interest you, the bigger picture should do. The development of offshore wind technology is certainly going to impact fishing.

Does size matter?

Yes, it does. We'll give you an example, based on information from Ørsted, the world's largest offshore wind developer. Ørsted has the oldest wind farm in the UK, the Barrow Offshore Wind (BOW) Farm, and also the newest, Hornsea One, currently the biggest in the world.



So here are some vital statistics:

BOW

- 30 x 3MW wind turbines, around 75m high
- 90 MW total capacity
- Total area covered: 10km^2

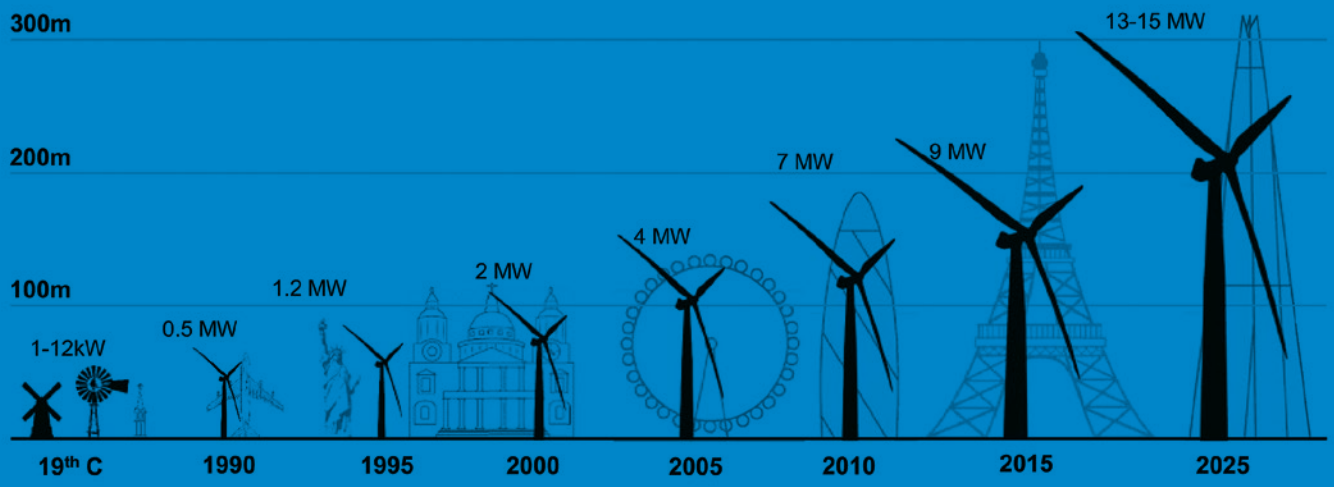
Hornsea One

- 174 x 7MW turbines, 190m high
- 1.2 GW (1,218MW) total capacity
- Total area covered: 407km^2

We all know which of those we'd want in a game of *Top Trumps*! And the wind farms of the future could get bigger still:

Hornsea Four (not yet built)

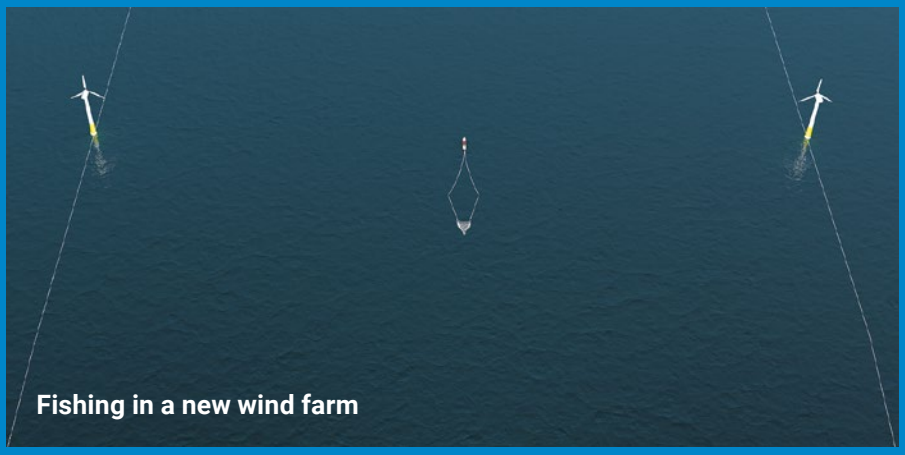
- Max number of turbines: 180
- Total area covered: up to 600km^2



Evolution of wind turbine heights and output

Sources: Various; Bloomberg New Energy Finance

Fishing in an old wind farm



Fishing in a new wind farm

* Each illustration shows a trawl door 'spread' of approx. 100m and total gear length of approx. 250m (vessel to cod end). Distances between rows of turbines are based on Barrow (older wind farm) in comparison to Hornsea One (newer wind farm).

How does this relate to fishing?

In UK waters, Safety Zones around construction vessels and agreements between fishermen and developers to remain outside of the wind farm are put in place during construction, but there are no blanket exclusions once farms are operational.

However, in practice, fishermen have to consider the safety aspects of fishing in operational farms – not just the visible surface structures, but the less obvious network of subsea cables, concrete mattresses and protection. But as turbines grow, the distances between them will grow too, and this could be good news for fishing.

At BOW, the distance is 500m between turbines and 750m between rows. With larger turbines and farms, the separation distances are larger: at Hornsea One, minimum separation distance between turbines is 924m, and the average (mean) spacing is 1,293m.

Fishing associations have told previous wind farm consultations that minimum spacing required to facilitate fishing within operational wind farms would be at least 1km in the case of beam trawlers (though at least 2km in the case of seine netters). Thus, the greater distances at Hornsea One and other planned wind farms may well open the way for certain fishing to resume. This is demonstrated within the illustrations above, showing how a fishing vessel may look if fishing within an old wind farm, in comparison to a new wind farm.

What else is changing?

Another element of good news for fishing is that developers say construction periods are becoming shorter. BOW, with 30 turbines, took around 10 months to construct; Hornsea, with almost six times the number of turbines, took around 21 months.

In addition, technology advances could reduce the number of potential snagging hazards. This is because the industry is developing new tools that enable cables to be laid with less potential for damage to the cable and working more closely with geophysical teams to limit the number of remedials (cable protection such as mattresses or rock) required.

And there's more...

Wind farms are being built further offshore. BOW is 7km from the nearest shore, at Walney Island, in Cumbria; Hornsea One is 120km off the Yorkshire coast.

Secondly, you may see an increase use of new farm styles, such as floating turbines. With different underwater structures, there will be new snagging hazards under the surface, such as the mooring chains and anchors for floating turbines.

Does the fishing industry have a say on new wind farms?

When planning a development, companies are obliged to consult with stakeholders, for example in 'section 42 consultations'. Organisations or individuals can register to receive updates on the project and comment at various stages. Fishing organisations will generally do this, but individual fishermen can also register. You have to do this via individual developers' websites – a web search of the development name and 'section 42 consultation' should generally take you to the right place.

Want to know more about possible upcoming wind farm developments? See our article on pages 5 and 6.

Surveys: what to look out for and how to avoid conflict

We're going to see more and more offshore surveying in UK waters – for renewables developments, subsea cables as well as oil and gas. When you see notices about them, it's useful to understand the different types and how each type may (or may not) affect you. Here's our quick guide – we've also indicated the potential risk of each type of survey, from high to low.

Seismic surveys – exploration and development

Potential risk: high

Seismic surveys collect data from deep below the seabed, primarily to locate or monitor oil and gas deposits. There are two main types: streamer surveys and seabed surveys.

Streamer surveys

A vessel will tow anywhere between one and 20 streamers, stretching up to 10km behind the vessel and reaching depths between 10 and 100m. These carry acoustic receivers which receive soundwaves, transmitted from the vessel and reflected back from the seabed.

Usually towed at fixed intervals, the streamers can effectively cover an area of up to 10km^2. The vessel can't stop without retrieving them and can't turn quickly either.

Typically, these surveys cover large areas over a period of 30-60 days, and the fisheries representative on board can be contacted to find out the vessel's location over the next 24 hours. Peak time for doing them is the summer months, but some take place in spring and autumn.

Inshore streamer surveys

In these, survey operators often request static fishing gear to be removed, to prevent damage to seismic equipment. As well as having to remove their gear, fishermen may be unable to fish in the area throughout the survey period, which can last for weeks.

In these cases, the survey company will usually speak to fishing representatives to reduce the impact to fishers. There may also be compensation discussions if there is sufficient evidence the area has been fished over the same period in preceding years.

Seabed surveys

Lines of acoustic receiving equipment are installed on the seabed for a period of several days, and the seismic vessel will then tow an acoustic source immediately behind the vessel.

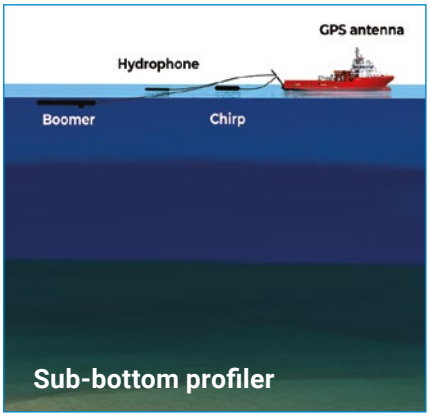
Shallow geophysical surveys

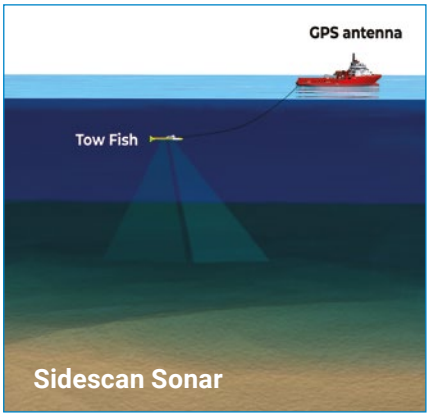
Potential risk: high

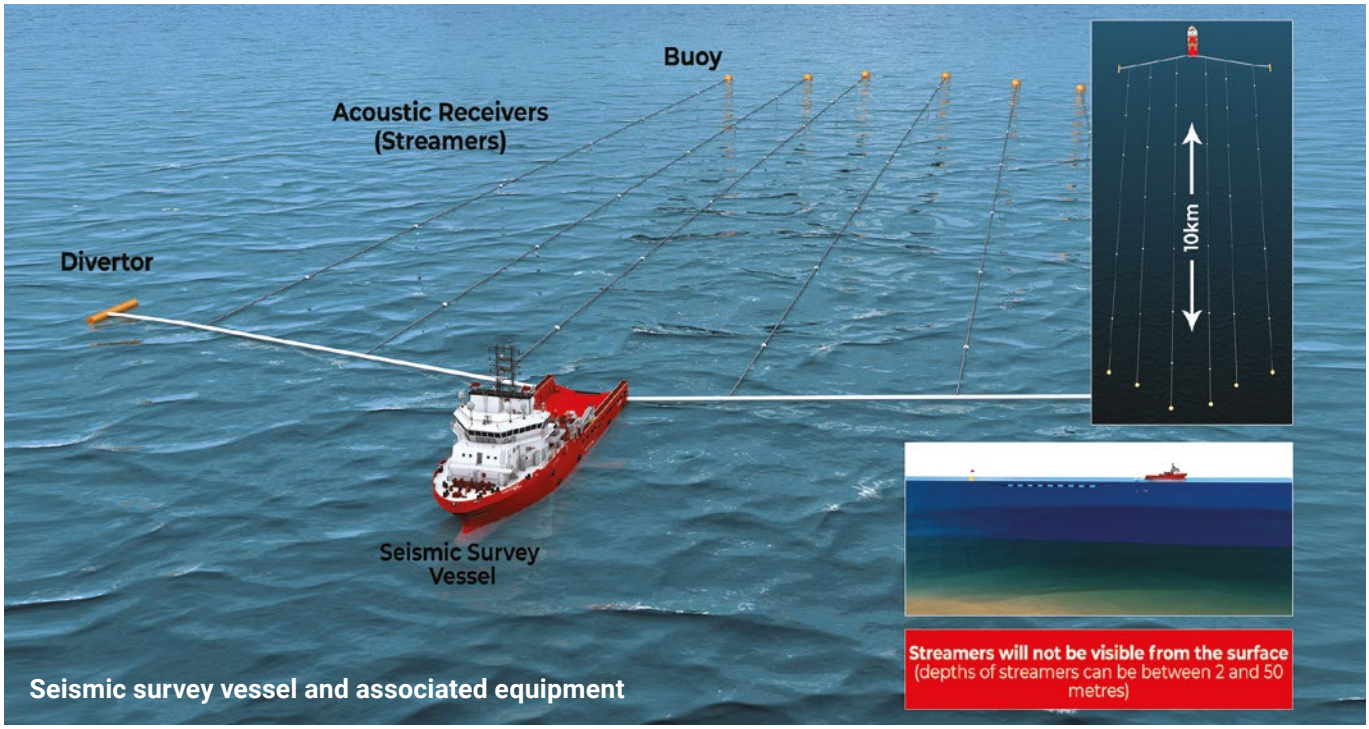
Common across oil and gas and renewables, shallow geophysical surveys study bathymetry and gather a comprehensive map of seabed features and sub-seabed geology (especially the top 100m). They are used for exploration wells (where further development may well not happen) and to inform the design and development of offshore structures such as wind farms, oil and gas platforms or pipelines.

Survey vessels tow a range of underwater sonar devices or magnetometers. Examples of these devices are shown in the illustrations (below). Though the tow will not be as long as a seismic survey – up to four streamers less than 1,500m long – the equipment still presents risks to fishing vessels and gear. Notices usually tell fishing vessels to keep a distance of at least 500 metres from the survey area.

Equipment may be towed as close as 5m above the seabed and is therefore likely to snag on any fixed fishing gear deployed on or near the seabed, causing damage to both sets of equipment.







Seismic survey vessel and associated equipment

Metocean surveys

Potential risk: medium

Used to inform the design of wind farms or tidal projects, Metocean surveys gather meteorological and oceanographic (hence, 'metocean') data, such as wind speeds and direction and wave and tidal characteristics.

Equipment deployed can include masts, tethered buoys or fixed measurement platforms. Buoys and platforms are mostly small – typically 1-3m in diameter – and may be in place for a year or more.

Equipment may also be deployed in a long vertical mooring rising from seabed anchors to just a few metres below the surface. In deep water, these moorings can be up to 1,000m long and can move long distances around their moorings. Vessels are therefore advised to keep at least 1,000m clear.

If equipment is to be placed in fishing areas, notices will generally be issued giving advice on the distance to keep. It is recommended that these isolated locations are always marked on your electronic chart.

Geotechnical surveys

Potential risk: low

Geotechnical surveys explore the layering of rock and sand in the seabed. They involve a mix of investigations such as drilling and borehole sampling, using stationary drillships or jack-up barges.

Equipment is likely to be deployed directly below the survey vessel, rather than towed. Even so, risks can include snagging and damage to fishing gear, so notices generally advise fishing vessels to keep at least 500 metres away. As with geophysical surveys, static fishing gear may have to be removed from the seabed.

Seismic 'streamer' survey

- Towed equipment: yes
- Length of tow: up to 10,000m
- Depth of tow: up to 100m
- Main conflicts: long streamers, slow stopping / turning

Seismic 'seabed' survey

- Towed equipment: immediately behind vessel
- Main conflicts: lines installed on the seabed mean no trawling can take place in area

Shallow geophysical survey

- Towed equipment: yes
- Length of tow: up to 1,500m
- Depth of tow: e.g. up to 30m
- Main conflicts: streamers, slow stopping / turning, removal of static fishing gear

Metocean survey

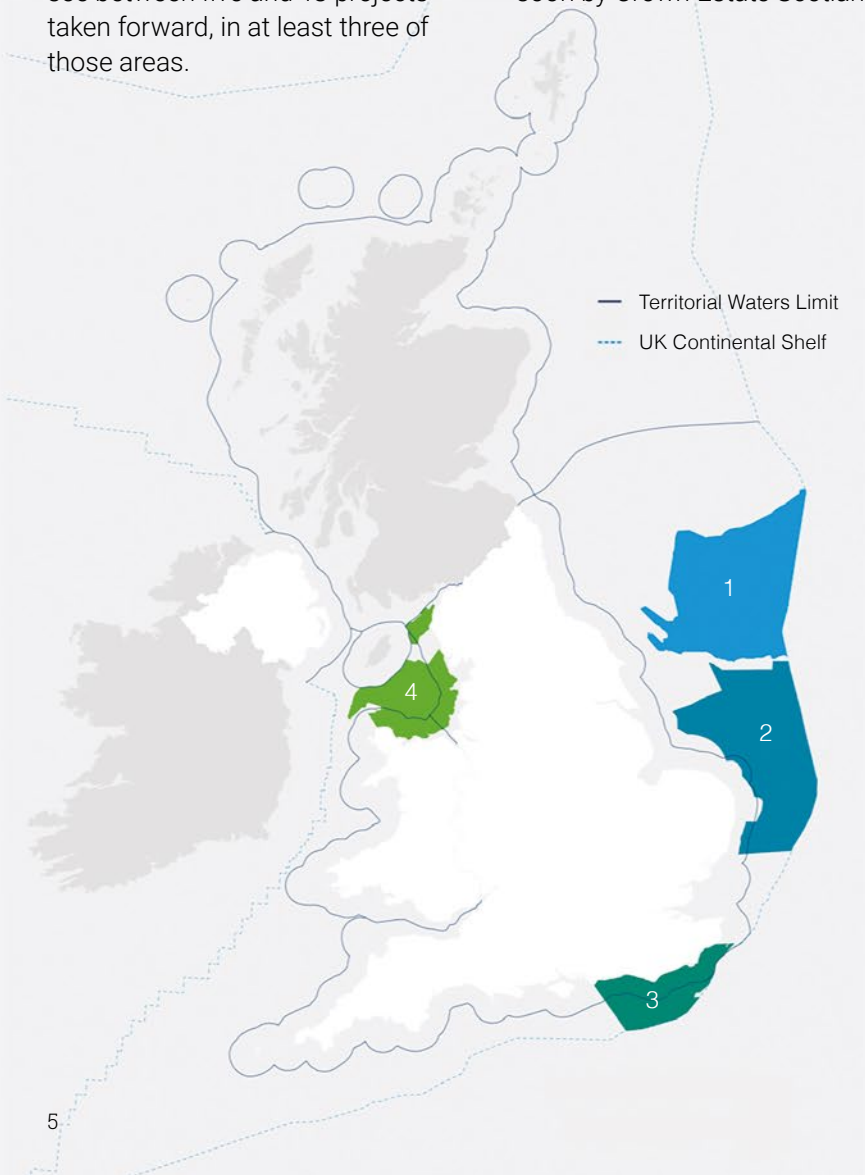
- Towed equipment: no
- Fixed equipment: yes
- Main conflicts: collision risk, removal of static fishing gear

New offshore wind round: coming soon(ish) to a seabed near you?

A new crop of wind farms is likely to rise up around Britain's coastline following the launch of The Crown Estate's leasing round for offshore wind.

The tender process for Round 4 is now live, and applies to rights in four different Bidding Areas of the seabed around England, Wales and Northern Ireland: Dogger Bank, Eastern Regions, South East, and Northern Wales & Irish Sea. It could see between five and 18 projects taken forward, in at least three of those areas.

The process is being managed by The Crown Estate which is effectively the landlord of the seabed around England, Wales and Northern Ireland. A leasing round for the seabed in Scotland is also expected to be announced soon by Crown Estate Scotland.



The four areas in Round 4 were chosen after consultation with many different organisations, including the National Federation of Fishermen's Organisations (NFFO) and Thanet Fishermen's Association.

The four Seabed Bidding Areas are:

Bidding Area 1

Dogger Bank
Comprising the Dogger Bank region

Bidding Area 2

Eastern Regions
Comprising the Southern North Sea region, the eastern part of The Wash region, and the East Anglia region

Bidding Area 3

South East
Comprising the South East region

Bidding Area 4

Northern Wales and Irish Sea
Comprising the North Wales region, the Irish Sea region, and the northern part of the Anglesey region

The feedback from fishers includes concerns about cumulative and in-combination impacts on fishing from existing offshore wind projects and management areas associated with Marine Protected Areas (MPAs). That feedback was fed into the 'characterisation reports' for each area which have been published on The Crown Estate's website to help developers identify potential project sites.

Can you still have a say?

The choice of Bidding Areas has been finalised, but prospective developers are being encouraged to engage with stakeholders such as the NFFO to inform their bid site selection.

Once a lease has been granted, the bidders will have to go through the statutory consenting process to build each wind farm, including impact assessment and stakeholder consultation. This process will offer opportunities for fishing organisations and individual fishers to have their say.

The best way to keep abreast of all Round 4 information, including successful bids, is at: **www.thecrownestate.co.uk/round4**

The website has a lot of technical detail but is well signposted and worth a look if you want to know more – including more detail about the four Bidding Areas.

Approximate Round 4 timetable (Note that post 2021, this will vary from project to project)

October 2019	Round 4 tender process kicked off – expected to take approx. 12 months
2020	Plan-level Habitats Regulations Assessments (HRAs) expected to begin – generally take approx. 12 months
2021	The Crown Estate expects to award new seabed rights
2021 onwards	Developers start to go through statutory planning process for their own projects. Development and consenting can take up to 5 years and procurement and contracts another 1-2 years
Mid-late 2020s	Construction could begin
Late 2020s	Round 4 projects could become operational

When and how will fishers be affected?

Given the timetable, you won't be affected immediately.

First involvement may be if you decide to input into the planning consultation process, probably from 2021 onwards.

The next impact on fishing could come from developers' survey activity relating to Round 4, including the installation of metocean buoys (see article on pages 3 and 4).

When the construction process gets underway, Safety Zones are applied around vessels involved in the construction.

Once wind farms are operational, they are not treated as exclusion zones, and it may be possible for fishing activity to resume, depending on safety considerations around the distance between turbines and the location of subsea cables.

Note that these Round 4 leases for the purposes of construction, operation and decommissioning last in theory for 60 years (though there will be break clauses after 25 years).

Article continued overleaf >

Continued from page 6 >

The farms: how big and what type?

The Crown Estate doesn't yet say how many leases it will award in Round 4 – it depends on the bids it receives. However, what we do know is...

The minimum project size will be 400MW (600MW in Dogger Bank), and projects could be as big as 1.5GW.

To put this in context, Hornsea One, currently the biggest offshore wind farm in the world, has 1,747MW wind turbines – i.e. just over 1.2GW – covering 407km^2.

At least 7GW of seabed rights are on offer, with a maximum of 8.5GW awarded. That means between five and 18 new wind farm projects will go forward to the planning and consenting stages. The Crown Estate intends to award projects in at least three out of the four Bidding Areas, but no more than 3.5GW can be awarded in a single Bidding Area.

As for the design of the farms, this round focuses on water depths up to 60m which are typically more suitable for fixed foundation (as opposed to floating) technology. However, The Crown Estate is encouraging developers to incorporate technological innovations within their projects, so we may well see differences to current designs.

The Scottish version: ScotWind

In Scotland, a separate bidding round for seabed leases for offshore wind is imminent. Dates and locations will be confirmed once Marine Scotland has published its draft Sectoral Marine Plan for Offshore Wind. At the time of writing this (November 2019), the date and details hadn't been announced.

For the ScotWind Leasing round, Crown Estate Scotland has consulted with different stakeholders, including the Scottish Fishermen's Federation and representatives of inshore fishing groups. When individual projects are taken forward, they will go through statutory consenting and planning processes, and the fishing industry will be able to take part in these.

The easiest way to track progress on the ScotWind leasing round is to check on the Crown Estate Scotland website at **www.crownestatescotland.com/media-and-notices**

We've got some news...

We're in the final development stage of a new, redesigned Kingfisher Bulletin. From the start of 2020, information will be easier to access than ever before, available in real time and there will be a new app too.

It's now more than 30 years since the Kingfisher Bulletin was first published, designed to warn the fishing industry about hazards and developments offshore. Since then, technology has changed greatly, as have the offshore industries, which meant the Kingfisher Bulletin had to adapt as well. We've talked to the fishing and offshore industries and their input has helped us to revamp the Bulletin for 2020.

The new Bulletin

The relaunch will see an end to the system of fortnightly updates. Instead, Bulletin users will receive information in real time, via:

- **a new Kingfisher Bulletin website, www.kingfisherbulletin.org**
- **an app for phones and tablets**
- **personalised alerts, via app, email and SMS**

Previously, when we received information from the offshore industries – e.g. a pipeline being installed or an exposed cable – we could only tell people in the fortnightly published Bulletin, which could mean waiting almost two weeks. Now, information can be received, added to the Bulletin system and sent out to users within a matter of minutes.

Information wherever you are

Most of us manage our lives by phone or tablet these days, so the new service includes a Kingfisher Bulletin app for iOS and Android devices. Downloadable free from the App Store or Google Play, it lets you:

- **receive news and alerts wherever you happen to be**
- **create personalised hazard alerts for specific areas or types of hazard, and get personalised news content**
- **save alerts and notices so you can access them offline**
- **share content on social media**

It's coming soon

Development of the new service is in its final stages, and we're looking forward to launching it at the start of 2020. We've already had very positive reactions from users who have trialled the service and the app.

Article continued overleaf >

Continued from page 8 >

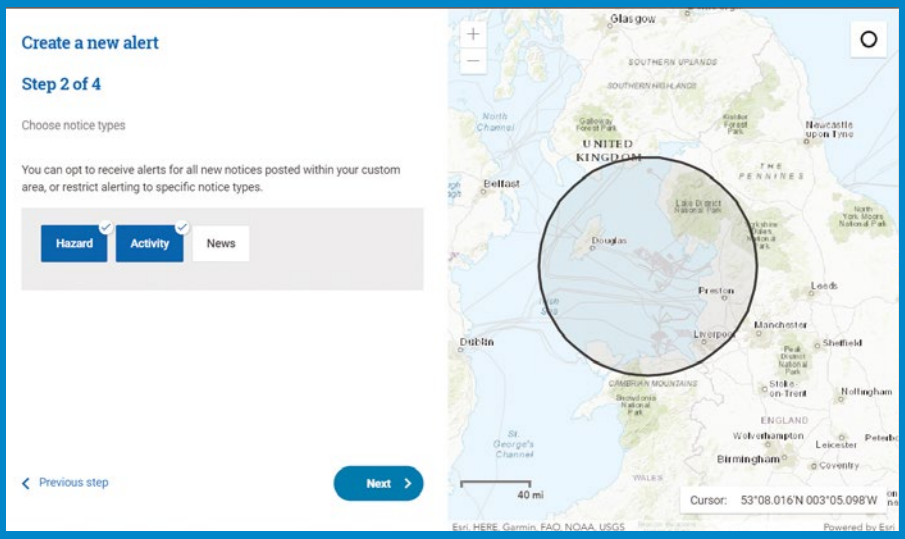
The new Bulletin in action

Let's say you're fishing in the Eastern Irish Sea and want to know about new hazards, activity or other news in the area. There are two ways to get the information you want:

1. Create an alert for the area, choosing to receive notices that are important to you
Alerts are created in a simple four-step process:

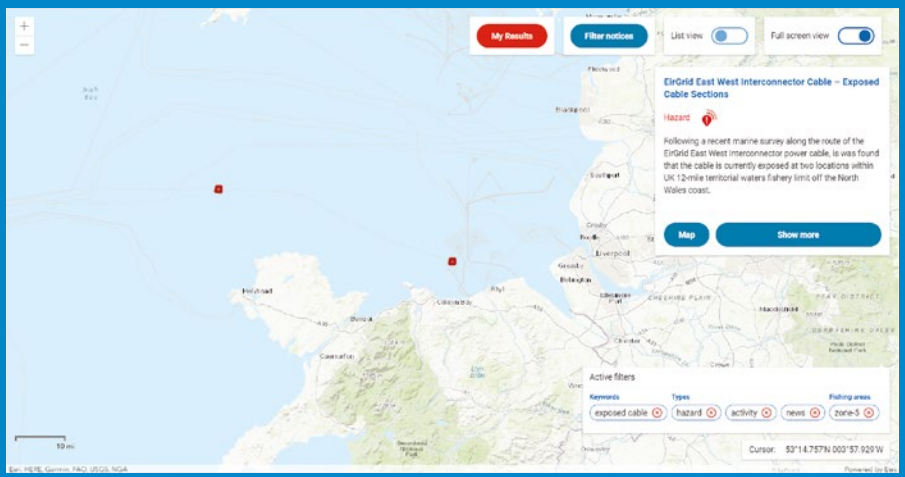
- name and draw the area
- select the type of notices you'd like
- choose the industries you're interested in
- select your alert method.

With an alert, you can receive information as soon as it is added to the system – with no waiting time or need to monitor the website.



2. Search the map on the website or app, reading, sharing and exporting your notices
By clicking on an alert you've received, or by going directly to the website at **www.kingfisherbulletin.org** or app, there are a host of features that make the Bulletin simple to use:

- search by keyword, e.g. name of hazard, vessel, operator
- input coordinates and radius, or just zoom to your fishing area
- filter the notices, so only those important to you are displayed.



Once you've chosen your information, this will be saved as 'My Results' and you've effectively created your own Bulletin. This can be printed, downloaded as a pdf or shared by email. You'll also have options to print, download or share individual notices via social media or messaging services.

Users' questions answered

Will I need training to use the new service?

Everything about the website and the app is designed to be easy to use. Once they are launched, we'd recommend having a go with the new website and app yourself – experimenting with the map, the way we display notices, and what works best for you. We're also producing a 'quick start' guide with simple instructions for using different features, and of course, the Kingfisher team will also be on hand to help.

Will I be able to download a PDF like I used to?

We won't send out the whole Bulletin as a PDF, but it's easy to generate your own personalised PDF from the website.

Will I still receive the Bulletin by paper or email?

We won't post or email out fortnightly Bulletins any more. But you can receive personalised hazard alerts and news content by email. It's also possible to get these by SMS or via the app.

How long will I wait for Bulletin hazard alerts?

Bulletin alerts will be sent to you without delay – in a matter of minutes from Kingfisher receiving a notice – providing you're within mobile range or connected to the internet.

Will I have to pay for any of these new services?

No, it's still free for users, thanks to the funding contributions provided by industry partners.

Can Bulletin notices be shared with other people?

Yes. Whether you're browsing the website, the app or have received a hazard alert, you'll be able to share notices easily via social media platforms, email, or as WhatsApp or SMS messages. Recipients, viewers or followers will be able to click on the Bulletin link and go straight to an individual notice or selection of notices.

Bulletin

Hazard alerts from Kingfisher

Get instant, personalised hazard alerts directly to your inbox or mobile phone*

Developed for fishermen, the new Kingfisher Bulletin is an interactive service keeping you up-to-date with **live hazards, notices and offshore news.**

Coming early in 2020 to www.kingfisherbulletin.org

seafish
Kingfisher
Information Service

*internet or phone signal required to receive alerts

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