Eastern IFCA Reference: Co_2019_12_06-112
Scottish Power Application Reference: EA2-DWF-ENV-REP-IBR-000892
Date: 22nd January 2020

East Anglia TWO Offshore Wind Farm Order

Dear Ms. Bolton,

Thank you for notifying us of the Planning Inspectorate's acceptance of East Anglia TWO Offshore Wind Farm for examination, and for your invitation to provide a Relevant Representation for the proposal.

1.1 *Role of the Eastern Inshore Fisheries and Conservation Authority*

The role of the Eastern Inshore Fisheries and Conservation Authority (Eastern IFCA) is to "lead, champion and manage a sustainable marine environment and inshore fisheries" in our district, which extends from the Humber to Harwich, and six nautical miles out to sea. The proposed cable route for East Anglia TWO Offshore Wind Farm will pass through the Eastern IFCA district. Therefore, given the potential impacts upon inshore fisheries and marine species, it is considered appropriate for Eastern IFCA to register as an Interested Party and to provide a Relevant Representation. It should be noted that our interest focuses primarily on the inshore section (0-6 nm) of the cable route corridor.

1.2. Use of the relevant marine plan

In all consultation responses, the Authority assesses applications (and pre-applications) according to their adherence with policies detailed in the relevant marine plan, as directed under section 58(1) of the Marine and Coastal Access Act 2009. The plans relevant to the Authority's district are the East Inshore and East Offshore Marine Plans (HM Government, 2014). We consider whether proposed developments will have a positive, negative or negligible effect on plan policies related to the IFCA vision to "manage a sustainable marine environment and inshore fisheries", highlighted in Table 1.

***Table 1**. Policy details and summary of Eastern IFCA's comments*

Policy	Policy Title	Relevance to application
BIO1 BIO2	Appropriate weight should be attached to biodiversity taking account of the best available evidence, including on habitats and species that are protected or of conservation concern.	We have highlighted potential impacts of the proposal on red throated divers and harbour porpoises (section 2.1.2), however we defer to the relevant Statutory Nature Conservation Body (SNCB), in this case Natural England and JNCC for specific advice regarding these species.

MPA1	Impacts on the overall Marine Protected Area network must be taken account of in strategic level measures and assessments, with due regard given to any current agreed advice on an ecologically coherent network.	Eastern IFCA recognise the potential for impacts on marine protected areas associated with the proposed works. We defer to Natural England on potential impacts on the conservation objectives of the Outer Thames Estuary SPA and Southern North Sea SAC and have highlighted the potential impacts of the project on sandeels as prey for Annex II harbour porpoises (Section 2.2.2).
EC3	Support proposals that contribute to offshore wind energy generation	Sustainably-developed offshore wind farms will generally have Eastern IFCA's support, although we emphasise the need for such proposals to be developed with due regard to fisheries and conservation sensitivities and in full consultation with relevant stakeholders.
ECO1	Cumulative impacts affecting the ecosystem and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation.	Cumulative impacts of the proposal with other offshore wind projects, and other plans and projects, require consideration in the examination.
GOV2	Opportunities for co-existence should be maximized wherever possible	We would encourage good communication with fishery stakeholders to avoid preventing access to fishing grounds or activities and to mitigate against any anticipated impacts (Section 2.3).
GOV3	Displacement of other activities should be avoided, minimised and mitigated against	We would encourage good communication with fishery stakeholders to avoid preventing access to fishing grounds or activities and to mitigate against any anticipated impacts (Section 2.3).
FISH1	Proposals should not prevent fishing activities on or access to fishing grounds; impacts should be minimised or mitigated.	We would encourage good communication with fishery stakeholders to avoid preventing access to fishing grounds or activities and to mitigate against any anticipated impacts (Section 2.3)
FISH2	Proposals should not have an adverse effect on spawning and	Detail on potential loss of spawning and nursery areas included in Section 2.2.2. Potential impacts of the project on commercially fished fish and

	nursery areas; impacts should be minimised or mitigated.	shellfish species with regards to electromagnetic fields emitted by subsea cables. (Section 2.2.3).
CAB1	Preference should be given to proposals for cable installation where the method of installation is burial. Where burial is not achievable, decisions should take account of protection measures for the cable that may be proposed by the applicant.	Preference for cable burial is outlined in section 2.4.

2.1. Policies BIO1, BIO2 and MPA1

2.1.1. Southern North Sea Harbour Porpoise SAC

The proposed export cable corridor lies within the Southern North Sea SAC, designated for the Annex II species harbour porpoise. Eastern IFCA defer to Natural England and the JNCC for formal advice on the potential impacts of the project, including the construction and maintenance of the export cable, on the conservation objectives of the site. Please see section 2.2.2 of this document for a more detailed response on the potential loss of sandeel spawning grounds.

2.1.2 The Outer Thames Estuary Special Protection Area (SPA)

The proposed export cable corridor passes through the Outer Thames Estuary SPA, designated for the threatened red-throated divers that over winter in the site. Eastern IFCA recognise that the Applicant has acknowledged that there is potential for disturbance and displacement of Red-throated divers resulting from the presence of up to two cable laying vessels installing the export cable in the Outer Thames Estuary SPA. The site was designated for Annex 1 species Red-throated diver as the sole feature (Natural England and JNCC 2010; JNCC 2011c) and an estimated 6,466 Red-throated divers wintered in the SPA from 1989-2006/07), but an aerial survey in February 2013 counted 14,161 Red-throated divers within the SPA boundary, suggesting that numbers have increased, and the population is in favourable conservation status (Goodship et al. 2015). The relevant conservation objective for the Outer Thames Estuary SPA is "*subject to natural change, maintain or enhance the Red-throated diver population and its supporting habitats in favourable condition*" (JNCC and Natural England 2013). Eastern IFCA defer to Natural England and the

JNCC for formal advice on the potential impacts of the project, including the construction and maintenance of the export cable, on the conservation objectives of the site.

2.2. Policies EC3, ECO1 and FISH2

2.2.1. Cumulative impacts on marine life and fisheries

Whilst the East Marine Plans state that proposals contributing to offshore wind energy generation within the Plan area should be supported, consideration should be afforded to the cumulative impacts of developments within the Plan area and adjacent areas. Eastern IFCA will generally support proposals for sustainably-developed offshore wind farms, although we would highlight the need for such proposals to be developed with due regard to fisheries and conservation sensitivities and in full consultation with relevant stakeholders. The East Marine Plans support sustainably developed offshore wind energy projects whilst the Marine Policy Statement (MPS) (HM Government, 2011) provides a high-level approach to marine planning and general principles for decision making that contribute to the MPS objectives. It also sets out the framework for environmental, social and economic considerations that need to be considered in marine planning.

The southern North Sea already contains a large number of offshore windfarms and has been identified as being suitable for further expansion regions, with East Anglia identified as a suitable region for project proposals during Round 4 of Crown Estate leasing, and with the Yorkshire Coast and The Wash under further consideration (The Crown Estate, 2018). Many existing – or consented but not yet constructed – projects lie off the coast of Lincolnshire and East Anglia, with export cables running through inshore waters to make landfall in Lincolnshire, Norfolk and Suffolk. The region is also important for marine aggregate resource, with many active or planned dredging areas in existence. The government recently highlighted the need to address cumulative impacts of offshore windfarms on “other users of the sea space such as navigation, fishing and dredging” in order to deliver offshore wind energy in a sustainable way, as well as the need to “better understand the cumulative impacts, both in the ecological and socioeconomic arenas: including birds, marine mammals, navigation and fisheries, and coastal and onshore communities affected by associated infrastructure” in order to continue to support the fast pace of windfarm deployment in UK and European waters (GOV.UK, 2019).

The cumulative impacts of multiple windfarms and dredging areas on marine life and on the viability of the inshore fishing industry need to be properly considered during planning and should be informed by full consultation with relevant stakeholders. We suggest that targeted effort is required in engagement with inshore fishery stakeholders. The impacts should be considered in combination, highlighting any potential cumulative effects associated with the application and guiding decision making and plan implementation.

2.2.2. Fish spawning and nursery habitats

Coastal habitats provide important spawning and nursery grounds for many marine species, therefore any disturbance to these habitats has the potential to negatively impact populations. Tope shark and Thornback ray utilise the Outer Thames Estuary as nursery grounds whilst herring use the area as a spawning site. The inshore area of the offshore cable corridor crosses the Outer Thames Estuary SPA, therefore these species will be particularly susceptible to any disturbance. The North sea is understood to support nursery grounds for additional species including herring, cod, whiting, mackerel, plaice and sole and spawning grounds for sole and sandeels (Ellis et al., 2012) – an important prey species of the Harbour porpoise, which is protected within the Southern North Sea cSAC.

Eastern IFCA would like to highlight the potential impacts of the project on sandeel habitats and possible consequences for their abundance and distribution. Sandeels are important prey for a number of predators, including fish, seabirds and marine mammals, including Annex II harbour porpoises. Due to their high oil content and high numbers, sandeels maintain a key ecological role in the North Sea (Jensen et al., 2011). Sandeels depend on adequate sandy substratum in which they burrow and are demersal spawners that lay eggs on the seabed. Physical disturbance and loss of seabed associated with the construction phase of the proposed project could therefore have damaging impacts on the species. Although the best available information (Coull et al., 1998; Jensen et al., 2011; Ellis et al., 2012) shows extensive spawning grounds for many species, Eastern IFCA is concerned about the scale of offshore activities in the Southern North Sea because of the cumulative effects (see also Section 2.2.1) these could have on seabed habitats. Whilst we appreciate the difficulty in studying potential wide-scale impacts, we consider this issue an important one. We defer to Natural England for formal conservation advice on the impact on the project on sandeels and any mitigation that may be required.

2.2.3. Electromagnetic fields

Eastern IFCA holds concerns about the proliferation of marine electricity cables off the East Anglian coast and the potential – but very poorly understood – impacts of electromagnetic fields on marine life. We would like to highlight that there are appreciable gaps in the scientific literature as to the potential effects of EMF emissions from subsea cables on marine fauna, and therefore there remain uncertainties in the ability of the Applicant to determine that there will be no adverse effects on fish and shellfish ecology. Of particular concern are elasmobranchs (sharks, skates and rays), which are the most widespread electrosensitive fish group of UK coastal waters. There is also recent evidence (Scott et al., 2018), which is not referenced in the Environmental Statement, to suggest that electromagnetic fields emitted from subsea power cables could impact on the behaviour and physiology of edible crabs. If the project is accepted for examination, we would very much like to see regular updates on the latest understanding of electromagnetic fields and their impacts on marine life,

which could develop significantly during the examination. Eastern IFCA defer to Natural England and Cefas for formal conservation advice on impacts of electromagnetic fields and whether precautionary mitigation should be implemented.

2.3. Policies GOV2, GOV3 and FISH1

There is potential for construction, decommissioning, and operation and maintenance activities within the cable corridor to result in interference with inshore fishing activities. Within the Eastern IFCA district, the inshore section of the proposed East Anglia TWO export cable corridor is positioned in ICES statistical rectangle 33F1, an important area for potting fisheries targeting crab, lobster and whelk. These fisheries provide a substantial contribution to the local economy, represented by first sale value, shellfish factory sales and tourism revenue. Gillnetting, longlining and trawling also occur to a lesser extent within this area. Most vessels engaged in these fisheries are of the smaller vessel size category (under 10m in length) and primarily target fish species such as sole, plaice, rays, cod and bass. Potential impacts on commercial fisheries include temporary loss of access to fishing ground, increased transit times and changes in the distribution of target species. Although the level of fishing effort that occurs inshore is much less than that undertaken by larger offshore fishing vessels, displacement during construction or maintenance works has the potential to have disproportionately large impacts on the inshore fishing fleet, because of their smaller working range.

Eastern IFCA recognise the embedded mitigation, including a commitment to burying offshore cables where possible to reduce surface cable protection, and supports the appointment of a local Fisheries Liaison Officer, use of the Kingfisher Information Service and Notice to Mariners to minimise disruption to fishery stakeholders and other marine users. This communication is extremely important to the livelihoods of fishermen and should be carried out on a continuous basis and well in advance of scheduled works and closures during every phase of development, operation and decommissioning. We would ask that these measures are coupled with regular communication with the relevant fisheries managers – Eastern IFCA out to six nautical miles and the Marine Management Organisation as well as Defra beyond the Eastern IFCA boundary. Regular communication ensures that mitigation includes the most up-to-date fisheries management measures and advice.

It is anticipated that some of the export cable will become unburied during the lifetime of the project due to mobile sediments. Eastern IFCA would like to highlight that if unburied, the presence of subsea cables can result in snagging of fishing gear. This poses a significant safety implication particularly for small vessels operating in the area, could result in semi-permanent exclusion of fishing activities from an area, and is therefore a concern for Eastern IFCA.

2.4. Policy CAB1

Policy CAB1 of the East Marine Plans states, ‘preference should be given to proposals for cable installation where the method of installation is burial’ (HM Government, 2014).

Eastern IFCA supports commitments made by the Applicant to bury, as far as possible, the offshore export cables with target depths of between 1m and 3m, thus minimizing the need for surface-laid cable protection and that extensive site selection work has been undertaken to ensure the routing of the offshore cables avoids the geological Coralline Crag at Thorpeness, thereby avoiding impacts to this feature.

However, Eastern IFCA note the project description states that where cables become unburied over time due to mobile sediments, the use of alternative methods of protection may be required. Alternative protection methods could include rock placement, concrete mattressing, the use of grout or sand bags, frond mattressing, and/or the use of uradact or similar shells. These alternative methods are not in keeping with the East Marine Plans. Eastern IFCA have concerns over the requirement for rock armouring cable protection, due to the potential impacts on soft-sediment habitats and on the fishing industry. Recent experience of cable installation in The Wash and North Norfolk Coast Special Area of Conservation (SAC) have shown operation and maintenance requirements have increased significantly beyond initial projections with subsequent increases in seabed disturbance and exclusion of fishing activities where cable cannot be buried. This has further potential to increase in-combination effects with other activities. Every effort should be made to maximise the length of cables that are buried and maintain burial over time. Using cable armouring instead of cable burial increase the likelihood of adverse long-term environmental and fisheries impacts.

3. General comments

Eastern IFCA is continually seeking to improve how we respond to consultations, both in terms of efficiency and meaningful content. Therefore, if any of the points raised in this response are reflected in the outcome, please can you highlight this to us?

We hope you find these comments useful,

Yours sincerely,

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