

FS007188 RWE Dublin Array S. I.

Public Consultation 18/11/2021 to 17/12/2021.

Public Submissions.

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From: [REDACTED]@gmail.com>
Sent: Tuesday 23 November 2021 14:14
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: FS007188 RWE Dublin Array S.I.

Sir/Madam,

In the drive to cut back on carbon, we cannot forget how important it is to protect our natural environmental.

This project has the potential to decimate the maritime environment off the coast of Dublin and Wicklow.

1. A eyesore on the marine landscape, visible for miles.
2. Interfere with marine mammals including dolphins and seals.
3. Kill thousands of seabirds, remember the success at Rockabill etc...
4. Cause foreshore damage.
5. A menace to shipping.

I would encourage you to do all you can to make sure the application is not successful.

Regards,

[REDACTED]

From: [REDACTED]@gmail.com>
Sent: Wednesday 1 December 2021 16:09
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: FS007188 RWE Dublin Array S.I.

Hi.

I am a commercial fisherman that is very concerned about this application as it will affect my ability to run business.

I have a 12m boat that fish's for whelk and crab and lobster in this area.

Regards [REDACTED]
FV [REDACTED]
086 [REDACTED]

From: [REDACTED]@iwdg.ie>
Sent: Monday 6 December 2021 13:08
To: Housing Foreshore <foreshore@housing.gov.ie>
Cc: [REDACTED]@iwdg.ie>
Subject: FS007188 foreshore application for Dublin Array

Dear Sir/Madam

Please find attached comments from the Irish Whale and Dolphin Group with regard to foreshore application FS007188 for geophysical and geotechnical works for the Dublin Array development.

Yours sincerely

[REDACTED] IWDG

Email: [REDACTED]@iwdg.ie

-1 attachment. Submission, 10 page.



Marine Planning and Foreshore Section,
Department of Housing, Planning and Local Government,
Newtown Road,
Wexford, Co. Wexford
Email: foreshore@housing.gov.ie

6 December 2021

Re: Foreshore licence application FS007188 Dublin Array - Annex E: Report to inform Appropriate Assessment Screening

Dear Sir or Madam

The Irish Whale and Dolphin Group (IWDG) was established in December 1990 and is an All-Ireland group “dedicated to the conservation and better understanding of cetaceans (whales, dolphins and porpoises) in Irish waters through study, education and interpretation”. While the IWDG is primarily concerned with cetaceans we have broadened our comments in this case to also include all marine mammals.

The IWDG welcomes this opportunity to comment on this foreshore licence. We would like to make the following points regarding the above foreshore application:

1. IWDG agree that the main marine mammal community has been described and is dominated by harbour porpoise and grey and common seals. However bottlenose dolphins, which are known to be part of the Irish coastal population do regularly pass through the site and given the relatively small and wide-ranging nature of individuals in this population should be given greater consideration in the EIA and AA. The statement “*While sightings rates and resulting density estimates were high in November 2019 and September 2020, overall there wasn’t any evidence of a seasonal pattern in the sightings*” could have been addressed using static acoustic monitoring which provides high quality temporal data. In order to ensure site surveys carried out to inform these assessments were appropriate it would have been useful if the applicant had provided the marine mammal survey report as an Appendix.
2. Page 30 Table 2: This table refers to a UHR (Ultra High Resolution) seismic sparker with a peak frequency of 4 kHz. A selection of specific Sub-bottom profiling equipment is listed in Table 1 (appendix i) here below and all boomers, sparkers and pingers have target frequencies that start at 0.5 To 2 kHz. The frequencies described in Table 2 of the document are the highest target frequencies and represent the smallest potential extension of the sound impact zones therefore. Additionally the multi-beam system chosen has a frequency of 190 to 240 kHz. Many multi-beam systems operate below this level and down to 12 kHz.

Given the association of a mass stranding with a 12 kHz system multi-beam use in Mozambique in 2008 (Southall et al. 2013) it should be clear that equipment with

frequencies lower than that considered in this assessment or with source levels higher than those considered cannot be used in survey work. Additionally equipment not listed, such as chirpers, should not be used.

Additionally if a USBL and HiPap system are to be used the sound characteristics should be included in the assessment. The DAHG (2014) guidelines on sound source usage requires a report of all sources to be submitted by the operator within 30 days of survey completion, this is not normally checked and required by the regulator and should now be enforced in order that the regulator can ascertain whether source use falls within the licence requirements and has been properly assessed.

Table 1: A selection of Sub Bottom Profilers and characteristics of output.

Model	Primary Frequency	Parametric Frequency	Source level primary	Source level parametric	
Atlas Parasound (pinger)	18-33 kHz	0.5 to 6 kHz	242/245dB	206/200 dB	Whale warning mode
Kongsberg SBP 120	2.5 to 7 kHz		220 dB		
Innomar SES-2000 Deep Parametric (pinger)	35 kHz	2, 3, 4, 5, 6, 7 kHz	244 dB		
Huntec boomer	0.5 to 8 kHz		205 dB		
Edgetech 512i - chirper	1 to 12 kHz		198 dB		
SIG '2 mille' mini-sparker	1 to 6 kHz		204 dB		
Arena Sub K-Chirp 3310	2 to 8 KHz		204 dB		
Applied Acoustics AA201 and AA301 boomer	1 to 6 kHz		212/215 dB		
Applied Acoustics Squid 500/2000 sparker	1 to 3.5 kHz		216/222 dB		
Applied Acoustics S-Boom (Boomer)	1 to 5 kHz		222dB approx.		

- Page 44. Table 5. Source levels do not agree with data obtained from CEDA (Central Dredging Association) position paper (<https://www.iadc-dredging.com/wp-content/uploads/2017/02/article-ceda-position-paper-underwater-sound-in-relation-to-dredging-125-4.pdf>) and recreated below in Table 2 (appendix i) with references. This would seem more conservative in its assessment of noise, with drilling noise assessed as much lower than assessed for Dublin array but engine noise significantly higher. Indeed the engine noise given in the assessment indicates a slow speed of vessels at all times or electric engine

usage. Unless sonic drilling is to be used drilling is not considered of significant impact in itself but would depend on other equipment that may be required for the activity.

4. Page 47 – 6.2.17 does not consider CPT (Cone Penetration Tests) on the drilling activity.
5. Page 48 – 6.2.18. Sub-bottom profilers can include airguns and are often omni-directional at worst and bottom orientated at best. Use of unpublished material should be avoided but Guan (2020) does state *“Most, if not all, sparkers and boomers are omnidirectional sources, thus should use 180° as the beamwidth”* in the paper quoted. However sound on a rocky substrate will be reflected in all directions. The *“wealth of data”* referred to should reference properly published material preferably from more than one source.
6. 6.2.19 Parametric refers to separation of signal into different signal frequencies and non-parametric primary frequencies refer to a single frequency output. However such signals are relevant to pingers only and then only some, not all, certainly the observations here are not applicable to all SBPs (Sub-Bottom Profilers). The CSA (2020) assessment quoted is very good but refers to a specific range of equipment and no such specific equipment has been considered here.
7. 6.2.20 refers to the SBPs and sound source being *“primarily being at 100 kHz”*. This is incorrect see Tables 1 and 2 (appendix i) here. The difference between SPL (peak) and SPL rms can be seen described for a variety of equipment Crocker and Frantantonio (2016), and in fact Guan(2020) which is quoted recommends using source levels from this technical report.
8. 6.2.21 There is no indication of type of equipment to be used so discussing source levels, attenuation and frequency should assume the worst case scenario or state for equipment which might be used.
9. Page 49. 6.2.22 This contradicts vessel noise levels in Table 5 of the document.
10. 6.2.23 I am not sure exactly which references are referred to but it seems the suggestion is that seals that are hauled out cannot be disturbed in the licence area as there is nowhere to haul out. As the licence area continues to the shoreline this is not strictly true. Though the impact is probably insignificant the applicant should identify any known or potential haul out sites to ensure this is not an issue.
11. 6.2.26 Given the reference CSA (2020) is used which assess a range of equipment that might be used and it identifies limited PTS and slightly larger possible TTS zones, it does not seem exactly correct to conclude *“sound levels are expected to not exceed those which may result in injury to any marine mammal”*.

12. Page 50. 6.2.27 While the assumption that baleen whales will not be present this is really dependent on the time of year and without acoustic or boat survey data from the area and surrounding waters it is impossible to determine likelihood of presence and/or disturbance. Some initial survey data has been mentioned with the presence of minke whales in the area acknowledged, but no data is presented that can be found here. So it would appear likely that minkes could be encountered during surveys.

Furthermore the statement *“With regard to pinnipeds (all of which are sensitive to low frequency range), although a level of localised disturbance may result this is expected to be minimal, with all disturbance effects from the proposed equipment being within that expected from vessels and consequently highly localized”*. This appears to state that seals will only be disturbed by the survey vessel noise and not the survey activity itself. This does not seem credible given the low frequency nature of many sound sources and known source levels above that of vessel noise.

13. 6.2.28 *“However, the proposed activities do not include..... high frequency energy release as part of seismic survey”* but apparently high frequency energy is the main focus of the survey. So this statement is incorrect.
14. Page 51. Table 8. SSS and bathymetric survey activity (presumably Multi-beam systems) are operating outside the frequency range of marine mammals. Many such systems work within the frequency range of marine mammals (up to 200kHz). This is a general statement without evidence of any investigation. Shallow water systems generally use higher frequencies but have side lobes of energy outside target frequencies and this is well documented. It would be better to include consideration for systems where operating frequencies are audible to marine mammals rather than later finding the system chosen and used was not properly assessed, unless it is sure that no lower frequency systems will be used, but no examples are given, therefore it appears this may be unknown.
15. Given that there have been a total of nine foreshore applications including this one submitted since 2019 that involve work within the Rockabill to Dalkey Island SAC (Site Code 003000) for the protection of harbor porpoise and the only cetacean SAC in the Irish Republic section of the Irish Sea, some consideration should have been given to works which affect the SAC and along with survey works present a danger of cumulative impacts. Indeed the works applied for are part of increased human development, dumping and survey work activity within the SAC. Given the supposed protected nature of the site and the fact that noise is not confined to survey areas the cumulative impact in the next 5 years may be considerable and a greater effort will be required to reduce impacts directly on the SAC. This should result in moving activity outside the SAC where practical as well as temporal mitigation, adoption of more stringent mitigation protocols and strict monitoring.



16. **Annex F:** Applicant's **Natura Impact Statement** Page 75. Requires standard NPWS mitigation practice, with additional prewatch period of 45 minutes and delay, required May to September for all marine mammals due to the presence of harbour porpoises calves. Records of equipment use and soft starts applied should be recorded and submitted with the MMO report or as a separate Operators report, as required under the NPWS guidelines. Full reporting as required by the NPWS guidelines must be required by the regulator in order for operations to be compliant and for compliance to be properly assessed. The delay of operations or prewatch of 45 minutes is of little significance in mitigating noise impacts given that where harbour porpoises are found, survey activity needs to simply move farther than 1 km away, start sound sources and precede to operate through areas of harbour porpoise activity. Given that survey activity will operate in and through one of the few SAC's (Special Areas of Conservation) in the country for harbour porpoise a higher level of protection which incorporates the strictest protection for Annex II and IV species in the Habitats Directive and under the Convention of Migratory Species (CMS) should be established under the guidance extracts included in appendix I here.

The running of survey activity through areas of recognised harbour porpoise presence with or without an extra 15 minute delay period does nothing to protect these animals from "*deliberate disturbance*" prohibited under article 12.

The assessment at this stage may be unclear as to what exact equipment will be used but reporting should include this, as is required under CMS COP12.14 (CMS, 2017). Areas that need addressing are highlighted in the extract in appendix I.

Yours sincerely

■■■■ ■■■■,

IWDG MMO Officer on behalf of the IWDG

■■■■.■■■■@iwdg.ie

Appendix I

Table 2. Sounds in the Aquatic Environment

Sound Source	Source level at 1m	Bandwidth	Main Energy	Duration	Directionality	Source
Explosives 1-100 lbs TNT	272dB-287dB re 1µPa zero-to-peak	2Hz~1kHz>	6Hz-21Hz	~1ms	Omni-directional	1)
Seismic air gun arrays	220dB-262dB re 1µPa peak- to-peak	5Hz-100kHz	10Hz-120Hz	10ms-100ms	Downwards	2)
Pile driving	220dB-257dB re 1µPa peak-to-peak	10Hz >-20kHz	100Hz-200Hz	5ms-100ms	Omni-directional	1), 2)
Multi-beam sonar	200dB-242dB re 1µPa rms	12kHz-455kHz		4-8ms	Downwards (ex. Tilted systems)	6) 7) 8)
Low-frequency military sonar	240dB re 1µPa peak	0.1kHz-0.5kHz	-	6s-100s	Horizontally focussed	3)
Mid-frequency military sonar	223dB-235dB re 1µPa peak	2.8kHz-8.2kHz		0.5s-2s	Horizontally focussed	1)
Sparkers, boomers, chirp sonars	204-230 dB re 1µPa rms	0.5-12kHz	Various	0.2ms	Downwards	2) 11)
Fish Finders and Depth Sounders	230 dB re 1µPa approx	24kHz -200 kHz		1-4ms	Downwards normally but exceptions e.g. Furuno FSV-24 Horizontal	7)
Side Scan Sonar	194 to 249 dB re 1µPa	40kHz - 1250 kHz		4-8ms	Downwards	9)
Acoustic Harassment Devices	194 dB re 1µPa	10 kHz		?	Omni-directional	12)
Shipping (large vessels)	180dB-190dB re 1µPa rms	6Hz >-30kHz	<200Hz	Continuous	Omni-directional	1)
Trailing Suction Hopper Dredges	186dB-188dB re 1µPa rms	30Hz>-20kHz	100Hz-500Hz	Continuous	Omni-directional	6), 7)
Cutter Suction Dredges	172dB-185dB re 1µPa rms	30Hz>-20kHz	100Hz-500Hz	Continuous	Omni-directional	6), 7)
Construction and maintenance ships	150dB-180dB 1µPa rms	20Hz-20kHz	<1kHz	Continuous	Omni-directional	1)
2MW Wind turbines	110 to 140 dB re 1µPa	?		Continuous	Omni-directional	13)
Drilling	115dB-117dB re 1µPa (at 405m and 125m)	10Hz-~1kHz	<30Hz-60Hz	Continuous	Omni-directional	1) 10)

Sound Sources listed approximately in order of source levels . Sources: 1). OSPAR (2009); 2). Thomsen et al. (2011); 3). Zimmer (2004); 4). Thomsen et al. (2009); 5). Robinson et al.(2011); 6). Hammerstad (2005); 7) ICES (2005); 8) Hydro International (no date a); 9)Hydro International (no date b); 10) McCauley (1998; 11) Hydro International (2006)); 12) Morton and Symonds (2002); 13) Madsen et al (2006).

Article 12(1) of that directive states:

‘Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV(a) in their natural range, prohibiting:

- all forms of deliberate capture or killing of specimens of these species in the wild;*
- deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration;*
- deliberate destruction or taking of eggs from the wild;*
- deterioration or destruction of breeding sites or resting places.’*

CMS COP12.14 excerpt from VI. EIA Guideline for Seismic Surveys (Air Gun and Alternative Technologies)

Description of the survey technology including:

- a. name and description of the vessel/s to be used
- b. **total duration of the proposed survey, date, timeframe**
- c. **proposed timing of operations – season/time of day/during all weather conditions**
- d. **sound intensity level (dB peak to peak) in water @ 1 metre and all frequency ranges and discharge rate**

Specification of the survey including anticipated nautical miles to be covered, track-lines, speed of vessels, **start-up and shut-down procedures, distance and procedures for vessel turns**

Identification of other activities having an impact in the region during the planned survey, accompanied by the analysis and review of potential cumulative or synergistic impacts

scientific modelling of noise propagation

Mitigation and Monitoring Plans Detail of:

- a. Scientific monitoring before the survey to assess baselines, species distribution and behaviour to facilitate the incorporation of monitoring results into the impact assessment
- b. Scientific monitoring programmes, conducted during and after the survey, to assess impact, including **noise monitoring stations** placed at specified distances
- c. Transparent processes for regular real-time public reporting of survey progress and all impacts encountered

d. Most appropriate methods of species detection (e.g. visual/acoustic) and the range of available methods, and their advantages and limitations, as well their practical application during the activity.

e. Impact mitigation proposals:

i. **24-hour visual or other means of detection**, especially under conditions of poor visibility (including high winds, night conditions, sea spray or fog)

ii. **establishing exclusion zones to protect specific species, including scientific and precautionary justification for these zones**

iii. **soft start and shut-down protocols**

iv. **protocols in place for consistent and detailed data recording (observer/PAM sightings and effort logs, survey tracks and operations)**

v. **detailed, clear, chain of command for implementing shut-down mitigation protocols**

vi. **spatio-temporal restrictions**

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From: [REDACTED]@btinternet.com>
Sent: Wednesday 15 December 2021 11:48
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: Offshore submission

FS007188 RWE Dublin Array S.I.

I am writing to you as I am very concerned about the scale and size of the offshore wind farm planned for Dublin, Bray and Arklow.

I am in favour of finding new sources of sustainable energy but this must be balanced with caring for the environment, thought about the impact it will have on marine life, the sea bed and proximity to shore. The scale of the wind farm is excessive and that the size of the actual turbines are significant when considering how close to shore they will be.

It is not, in my opinion, suitable for the area and it needs to be located further out to sea or indeed smaller in size and scale.

There are alternatives which are not being considered which are far more ecologically sound and leave less of an impact.

I believe this project is wrong and should not proceed in its current form.

Please revisit the scale and size and type of turbines used for the project and ensure they are located further out to sea.

It would be an anomaly within Europe to have this type of wind farm located where they are currently planned.

Yours faithfully,

[REDACTED]

From: [REDACTED]@outlook.com>
Sent: Wednesday 15 December 2021 22:13
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: FS007188 RWE Dublin Array S.I.

Hello,

I would like to stress the importance that there would be transparency in this process.

We need renewable energy sources as quickly as possible. At the same time, I am concerned that this would be pushed through without due consideration of a fair deal for the tax payer who will be funding this. Selling off marine “sites” for private developers to develop and paying them for this, involves the danger that other nations would benefit from the energy generated and not Ireland.

I believe a French company already has access or rights to one such site. Could it be considered alternatives to the giant fixed wind turbines that are proposed? For example floating turbines that do not damage the marine biodiversity?

Many Thanks

[REDACTED]

From: [REDACTED]@aclsolicitors.ie>
Sent: Thursday 16 December 2021 18:43
To: Housing Foreshore <foreshore@housing.gov.ie>; Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Cc: [REDACTED]@gmail.com>; [REDACTED]@gmail.com>; [REDACTED]@gmail.com>; [REDACTED]@gmail.com>; [REDACTED]@gmail.com>; [REDACTED]@gmail.com>
Subject: Objection re RWE Survey Application [RYA123/0001]/[East Coast Fishers]/[East Coast Fishers]

Augustus Cullen Law thoughtful clear advice Augustus Cullen Law, Solicitors 7 Wentworth Place Wicklow, Ireland t 0404 67412 01 6139188 f 0404 69219 dx 46001 Wicklow VAT No IE 1292984P e info@aclsolicitors.ie
16 December 2021

Foreshore Unit, Department of Housing, Local Government and Heritage, Newtown Road, Wexford, Co Wexford, or email foreshoreORE@housing.gov.ie

Reference is quoted in the submission header: FS007188 RWE Dublin Array S.I.

East Coast Fishers Objection to RWE Renewables Ireland Ltd application for Foreshore Licence to undertake geotechnical and geophysical site investigations and ecological, wind, wave and current monitoring to provide further data to refine wind farm design, cable routing, landfall design and associated installation methodologies for the proposed Dublin Array offshore wind farm off the coast of County Dublin & County Wicklow.

Dear Sirs,

We are instructed to file this objection on behalf of East Coast Fishers including the following:

(1) [REDACTED], (2) [REDACTED], (3) [REDACTED], (4) [REDACTED], (5) [REDACTED], (6) [REDACTED], (7) [REDACTED], (8) [REDACTED] of [REDACTED] and (9) Irish Popcorn & Snackfood Co. Ltd of [REDACTED] and [REDACTED]. (11) [REDACTED], (12) [REDACTED], (14) [REDACTED] of [REDACTED], (15) [REDACTED], (16) [REDACTED] of The [REDACTED] (17) [REDACTED] (18) [REDACTED] of [REDACTED] (19) [REDACTED] (20) [REDACTED] of The [REDACTED] (21) [REDACTED] hereinafter "East Coast Fishers" (22) [REDACTED] and [REDACTED] (23) [REDACTED] (24) [REDACTED].

RE: Application of windfarms Survey in the Irish Sea Dublin Array - RWE

Primary Concern

We have been retained by the fishermen whose names and vessels are set out [Above] fishermen primarily from the East coast Dublin Array, Kish, Wicklow, and Arklow area. Our clients are increasingly concerned at the far reaching proposals for wind farms in the Irish Sea. They see major lacunae and neglect in the approach of the sponsoring companies to their opportunity, income and livelihoods in fishing in the Irish Sea.

National policy implications

The nature and extent of this application and related adjacent applications by other Wind Farm Companies are of such a scale that a comprehensive framework is required if these developments are to proceed in a manner consistent with the interests and constitutional rights of traditional fishermen, navigation and the community generally.

The development of wind energy is important strategically and economically. It requires a coherent and joined up approach which gives due regard to the interests not just of wind power developers and the exigencies of energy planning, but also to the impacts on the marine environment, on fishing activity and the livelihoods of the fishermen who have traditionally made their livelihood from fishing in the area.

The following issues arise:

1. Nature and extent of the applications
2. Stages of Development: surveys, construction, development and operation.
3. Impact on fishers - fisheries impact assessments
4. Impacts on Environment
5. Exploitation of marine resources.

1. Nature and extent of applications

The applications for foreshore licences cover substantial areas in the immediate vicinity of the East Coast of Ireland and in particular in this application Dublin Array, Bray Banks and Kish. It is also clear that significant areas of the Exclusive economic zone outside the foreshore area may be absorbed or impacted by wind farms. They are included in this geotechnical surveys. If the true impact of these developments is to be assessed, then it should not be done on a piecemeal basis, but it should be done in an integrated way. This will involve both the Foreshore Acts 1933 to 2014 and the Continental Shelf Acts. It appears that some of the proposed development and surveys may extend beyond the Foreshore and into Ireland's exclusive economic zone on the Continental Shelf and require careful statutory processes to avoid an ultra vires situation. It must take into account the MARA Act and National and EU policy documentation and Marine Spatial Plans

2. Stages of Development

The proposed developments will have different impacts as they progress. It is necessary to distinguish four stages as follows (a) the surveys stage, (b) the physical planning stage, (c) development stage and construction, and (d) the operating stage. It is suggested that a coherent and consistent approach to each of these stages should be mapped out, so that all those concerned and affected by these major developments are in a position to take an informed view. In what follows below we concentrate on the fisheries and environmental aspects

3. Impacts on fishers.

Of critical concern to us is that the current daily users of the Irish Sea, the fishermen we represent, who use it as a workplace have not been consulted adequately in the process to date. Their concerns relate to the impacts of each of the stages of large-scale development identified in paragraph 2 above. These impacts concern (i) the potential loss of opportunity to fish, (ii) the loss of income and, (iii) ultimately the loss of livelihood. If these developments are to proceed in a manner consistent with established rights of local fishers, it is imperative that the agencies of the state

ensure that mechanisms are put in place to vindicate the fisher's rights. We believe that inter alia, this requires an independent assessment of the impacts in paragraph 3 on fishers at each of the stages mentioned at paragraph 2. We believe that to expedite development the most effective means would be to put in place a mediation process to compensate for those losses at each stage. Ideally a national strategy and framework would be negotiated and agreed.

4. Impacts on the environment.

A major consideration in assessing these applications must be evaluation of the likely impact of developments of this scale on the spawning beds and fishery grounds in the area being assessed for proposed development. It is suggested that the parameters of the exploratory work should be in partnership with the existing users, and not independently of them and their ongoing activities. Our fisher client report to us that they catch since the last RWE survey is down 70% . This devastating damage to whelk and other fish stocks since the last survey needs to be independently investigated . Our fisher clients firmly believe this reduction is a consequence of the last RWE survey . Our clients are willing to liaise with the evidence of their reduced turnover with an investigation by you.

5. Exploitation of wind resource.

The offshore wind resource is a national marine resource in much the same manner as fish or hydrocarbons. It therefore raises issues regarding exploitation and distribution of benefit.

Proposal for a way forward

We have identified the following as critical:

1. Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 envisages maritime spatial planning as a cross-cutting policy tool enabling public authorities and stakeholders to apply a coordinated, integrated and trans-boundary approach. At the core should be a national strategy, a National Marine Spatial plan, drawn up in consultation with the competing economic interests, and those effected by the possible or probable Marine development. Members of the public should be afforded the opportunity to input and comment on any draft plan. The adoption of such approach would be a matter for government, as well as EU level, much as the County Development Plans are a matter for local authorities. Such an approach could consider in a holistic way, not just the distribution of economic benefits, but also environmental impacts, the impacts on fishing communities, impacts on Navigation, the impacts of exclusion zones and so forth.
2. Financial and compensatory arrangements in relation to the short, medium and longer term should be independently assessed and developed to address the loss of opportunity to current economic players , and in particular fishermen for their loss of opportunity during exploratory work , and their loss of income during development, and any loss of livelihood consequent on operation of the wind projects.
3. Appropriate environmental studies should be identified in conjunction with fishers and scientists and concluded before embarking of elements of these projects which might have unassessed impacts.

Conclusion

It is of concern to our fishing clients that consents are being considered and granted on a piecemeal basis without due consideration for our clients' industry interests as stakeholders in the Irish Sea.

The projects now being contemplated involve a major incursion into the Irish Marine area. As such it would be appropriate to agree an overall approach and principles. A collaborative consultative process with the fishers being impacted could be used to guide developments and take proper and timely account of impacts, and avoid the dislocation and delays which failure to involve the affected fishermen will trigger.

On behalf of our fishers clients, we would ask to be included in a meaningful process in relation to the impacts on our clients, with a view to a mediated resolution of the income and opportunity issues which these proposed developments raise for our clients.

There is a parallel between the manner in which it was necessary to articulate a policy in relation to offshore hydrocarbon exploration. It is pointed out that the environment and economic implications of wind power development could be at least as significant - possibly even more so.

This is an opportunity for the relevant Departments to take a leadership role and balance and mediate a pragmatic co-existence relationship and financial framework between the fishermen and the Windfarm developers.

We look forward to hearing from you.

Yours faithfully

██████████ Solicitor Accredited Mediator and Collaborative Practitioner | Diploma in Commercial Litigation & Mediation & Certificates in Health Care Law , Human Rights , Advanced Advocacy and Arbitration and IT and IP Law | Consultant | Augustus Cullen Law | Email: ██████████@aclsolicitors.ie | Wicklow Office: 7 Wentworth Place, Wicklow | Tel: +353 (0)404 67412 | Fax: +353 (0)404 69219 | Dublin Office: 18 Bow Street, Duck Lane , Smithfield Dublin 7 | Tel: +353 (0)1 6139188 | Web: www.aclsolicitors.ie Augustus Cullen Law Three times Winner of Irish Law Awards

From: [REDACTED] <[REDACTED]@gmail.com>
Sent: Thursday 16 December 2021 22:55
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Cc: [REDACTED] <[REDACTED]@gmail.com>
Subject: Re: FS007188 RWE Dublin Array S.I. - RWE Renewables Ireland Ltd.

To whom it concerns,

Please see attached our committee's observations/submission and three pieces of supporting documentation as it relates to the RWE Dublin Array S.I - Foreshore Licence to undertake geotechnical and geophysical site investigations and ecological, wind, wave, and current monitoring to provide further data to refine wind farm design, cable routing, landfall design and associated installation methodologies for the proposed Dublin Array offshore wind farm.

We hope that the Department of Housing, Local Government and Heritage will give this matter it's full intention and take on board the points raised. We would ask for confirmation that our committee's observations/submission was received as part of the consultation process.

Yours sincerely,

[REDACTED]

[REDACTED]

Committee Member,
and on the behalf of The Adela-Hare Centenary Commemoration Committee.

E-mail: adelahare1917@gmail.com
Facebook: <https://www.facebook.com/adelahare1917/>
Website: <http://thewater-front.com/>

**Attachments to email:

- Dublin Array Foreshore Application-Final Submission-16.12.2021 (Observations from group) **below**
 - OSPAR Commission Report-Wind Farms-2004 (Biodiversity Series. Problems and Benefits Associated with the Development of Offshore Wind-Farms)
 - Archaeological Writtens Schemes of Investigations for Offshore Wind Farms (The Crown Estate, July 2021)
 - Within the Seat of War publication (Book about the 1917 sinking of SS Hare, SS Adela)
-

The Adela-Hare Centenary Commemoration Committee,
c/o ■ Redwood Lawns,
Kilnarnagh,
Tallaght,
Dublin 24.

adelahare1917@gmail.com
■@gmail.com

The Foreshore Unit,
Department of Housing, Local Government and Heritage,
Newtown Road,
Wexford,
County Wexford.

Email: foreshoreORE@housing.gov.ie

16th December 2021.

Reference No.: FS007188 RWE Dublin Array S.I - Foreshore Licence to undertake geotechnical and geophysical site investigations and ecological, wind, wave, and current monitoring to provide further data to refine wind farm design, cable routing, landfall design and associated installation methodologies for the proposed Dublin Array offshore wind farm.

To whom it concerns,

On the behalf of The Adela-Hare Centenary Commemoration Committee, we wish to make the following observations regarding the application submitted by RWE Renewables Ireland Limited to undertake geotechnical and geophysical site investigations and ecological, wind, wave, and current monitoring to provide further data to refine wind farm design, cable routing, landfall design and associated installation methodologies for the proposed Dublin Array offshore wind farm.

Background/Shipwrecks

The Adela-Hare Centenary Commemoration Committee was established in 2017 to commemorate the loss of life associated with the sinking of two Dublin Bay vessels in December of 1917, the S.S Hare (Dublin Bay) and the S.S Adela (Holyhead, Wales). The S.S. Hare is one of the shipwrecks that lies within the foreshore licence application boundary area.

On the 14th of December 1917, the S.S Hare was torpedoed with the loss of twelve lives. Just two weeks later the S.S Adela was torpedoed with the loss of twenty-four lives. The Adela-Hare Centenary Commemoration Committee included family members of those lost, the local

Dublin Port community and historians. It worked in conjunction with Dublin City Council to mark the centenary, and forged links with local authorities in Wales and the German Embassy. The actual commemorative events in 2017 were attended by the Lord Mayor of Dublin, the Lord Mayor of Holyhead, and a representative of the German Embassy in Ireland. Our remembrance service was also expanded to include the S.S William Barkley, the first of the iconic Guinness fleet torpedoed on the 12th of October 1917 with the loss of five lives. It too is another shipwreck that lies within the foreshore licence application boundary area.

It is important to note that these vessels still lie on the seabed and in most cases the remains of the crew members lost have never being recovered, and for many families represent the final resting place of their relatives. Attached is a PDF copy of a commemorative publication that our committee published to mark the centenary of the sinking of the S.S Hare and S.S Adela and is entitled 'Within the Seat of War'.

This foreshore licence application, if given the go ahead, has the potential to impact on 24 known wrecks and another 125 unknown wrecks and uniquely a submerged forest extending from Bray Harbour northwards to Shanganagh Park near Shankill. While we note that RWE Renewables Ireland Limited intends to establish Archaeological Exclusion Zones (AEZs) around known wrecks and 'potential receptors', We have grave concerns about the scale of the geotechnical and geophysical site investigations to be undertaken and the impact these investigations will have on marine archaeology. We would like to draw your attention to the attached publication entitled 'Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects' dated July 2021 which addresses the issue of offshore windfarms and marine archaeology and is a guidance document from a United Kingdom perspective.

Internationally there is a train of thought regarding legacy shipwrecks with an emerging viewpoint that shipwreck sites offer a potential to be used as memorials and to be recognised as maritime war graves. Shipwreck sites in which there may be human remains need to be treated with dignity and respect. For descendants of those who were lost at sea and went down with the ships to be found in the Dublin Array study area, these shipwreck sites are perceived as grave sites with emotional and psychological connections going back generations. For so many families these wreck sites are all that they have in marking the final resting place of a loved one, whether that be a great-grandfather, a grandfather, an uncle, an aunt, etc.

We would strongly urge that in conducting any works associated with the geotechnical and geophysical site investigations that full respect is shown for not just these vessels/shipwrecks but all vessels/shipwrecks in a comparable situation and that all necessary measures are taken to fully survey known and unknown shipwrecks and to prevent their disturbance.

UNESCO Biosphere Status/Tourism

In 1981 and again in 2015, Dublin Bay was named a biosphere reserve by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in recognition of Dublin Bay's unique ecological habitat and biological diversity. According to UNESCO, a biosphere reserve is an area of land which protects ecosystems while encouraging local development through nature conservation.

At the time of designation, the then Minister for Jobs, Deputy Richard Bruton T.D., said he hoped that Dublin Bay's new status would "*act as a magnet*" for tourists to visit the heart of the Dublin City and learn about the Dublin Bay's unique wildlife.

Ireland being an island nation has a coastline that attracts both home and overseas visitors to beaches, cliffs, and long-distance paths every year. Distant views out to sea are very much a part of this attraction. Ireland's coastline provides an especially important economic asset for coastal communities that often rely upon it for tourism related activities. The government recognises the need to revitalise coastal communities and the importance of encouraging new and sustainable enterprises. The coastline and sea views help to attract tourist visitors which in turn support these coastal communities and their economies. Not everyone enjoys the sight of industrial machinery, especially offshore wind turbines, in the seascape. Many would prefer to see the natural landscape unblemished and unspoilt.

RWE Renewables Ireland Limited also recognises the importance of the Dublin Bay Biosphere for '*its significant environmental, economic, cultural and tourism importance*' in its Annex C: Environmental Impact Assessment Screening and Environmental Report.

These geotechnical and geophysical site investigations will no doubt in time will assist the follow on offshore wind farm development and thus it is important to question what will be the impact from a tourism, ecological and maritime perspective.

Ecological/Biodiversity

It is our committee's concern that the proposed geotechnical and geophysical site investigations and follow on offshore wind farm development have the potential to cause permanent damage to the fragile sand banks and the associated ecology/biodiversity to be found in the Irish Sea.

According to RWE Renewables Ireland Limited the eventual 'Dublin Array' offshore wind farm development will be located 10km offshore from the shoreline. This is far closer than the norm across the EU when it comes to similar offshore windfarm development projects. The visual impact of offshore wind turbines within 10km of the shoreline would be a significant issue from both a visual and tourism perspective.

This investigative foreshore licence application for geotechnical and geophysical site investigations would impact negatively on the following Natura 2000 conservation sites:

- Howth Head Coast SPA [004113]
- South Dublin Bay and River Tolka Estuary SPA [004024]
- North Bull Island SPA [004006]
- Dalkey Islands SPA [004172]
- The Murrrough SPA [004186]
- Howth Head SAC [000202]
- South Dublin Bay SAC [000210]
- North Dublin Bay SAC [000206]
- Rockabill to Dalkey Island SAC [003000]
- Bray Head SAC [000714]

- The Murrrough Wetlands SAC [002249]

The proposed geotechnical and geophysical site investigations and follow on offshore wind farm development have the potential to cause permanent damage to the fragile sand banks off the east coast of Ireland thus impacting on the above Natura 2000 conservation sites and their associated ecology/biodiversity status. the coastline would be under serious threat from loss of the protection that the sand banks offer the coastline

According to the investigative foreshore licence application, RWE Renewables Ireland Limited intend to carry out geotechnical survey work involving the following number of boreholes which seem quite a lot and will impact the existing seafloor quite considerably in the proposed survey area.

- Up to 61 geotechnical boreholes to an approximate depth of 80m below seafloor and an outside diameter of up to 254 mm.
- Up to 61 Deep push seafloor Cone Penetration Tests (CPT) to an approximate depth of 80m below seafloor with a diameter of approximately 40mm.
- Up to 31 Seafloor CPTs with a diameter of approximately 40mm and 48 vibrocores with a diameter of approximately 150 mm diameter. The target depth of each technique will be approximately 6 m below seafloor. Up to five of each type may be located within the intertidal area.
- Up to 12 nearshore geotechnical boreholes with wireline logging and Rotary Cored Drilling, approximately 100 mm diameter to target depth of 45 m below seafloor (4 at each landfall option).

According to RWE Renewables Ireland Limited the purpose of the geotechnical survey is to provide an understanding of ground conditions to *'refine the foundation design, sizing and installation methodology and to finalise cable route and landfall design and installation methodology'*.

The disturbance of placing turbine foundations so close to sensitive protected conservation sites and species along the coast has potential to create difficulties when it comes to the installation of cables necessary to get the power ashore. The sea bottom preparation for wind turbine foundations and cable laying activities during the eventual construction phase will cause destruction and disturbance of the local benthic fauna and flora.

Indeed, we would like to draw your attention to the attached publication entitled 'Problems and Benefits Associated with the Development of Offshore Wind-Farms' OSPAR Commission 2004 and to pages 15 to 18 in which it summarises possible impacts of offshore wind farms on the different parts of the environment including biodiversity are described in general.

The proposed geotechnical and geophysical site investigations and the eventual construction and operation of an offshore wind-farm can potentially have an impact on the hydrography and the geomorphology surrounding the offshore windfarm area. An offshore wind farm may change the water flow and the sediment properties in the area. The resistance from the foundations of wind turbines may influence the current and wave conditions in the wind farm

area and this may influence the rate of erosion and deposition of sediment in the area which could have a bearing on the surrounding ecosystem and marine archaeology, in particular shipwreck sites. The potential impacts on local hydrography may also affect the coastal morphology in the area, due to changes in current conditions and erosion and deposition of material.

Consultation Process

We do note that prior to submitting the investigative foreshore licence application, RWE Renewables Ireland Limited have not undertaken any consultation process specifically with any consenting authorities such as planning authorities, Commission for Energy Regulation, etc., in relation to the scope of this foreshore licence application. This seems very particular, and one wonders if their current investigative foreshore licence application is somewhat premature in purpose.

Conclusion

In conclusion, we believe this foreshore licence application and as such should be disregarded as RWE Renewables Ireland Limited have not undertaken any consultation process with any consenting authorities such as planning authorities, Commission for Energy Regulation, etc., which is a legal requirement. These geotechnical and geophysical site investigations will impact on very important NATURA 2000 conservation sites and will undermine the importance status of Dublin Bay as a UNESCO Biosphere.

We believe also that the proposed development of offshore wind farms at this time is premature given the lack of an up-to-date legal and governmental framework for such development and should be put on hold until such a framework is in place.

We would therefore ask that this foreshore licence application be refused accordingly.

Yours sincerely,

██████████

██████████

Committee Member,
and on the behalf of The Adela-Hare Centenary Commemoration Committee.

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Website: <http://thewater-front.com/>

From: [REDACTED]@icloud.com>

Sent: Friday 17 December 2021 10:09

To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>

Subject: Submission: FS007188 RWE Dublin Array S.I. RWE Renewables Ireland, Site Investigations for the proposed Dublin Array Offshore Wind Farm

I wish to make the following submission/observation regarding

FS007188 RWE Dublin Array S.I.

RWE Renewables Ireland, Site Investigations for the proposed Dublin Array Offshore Wind Farm

I strongly object to the granting of a Foreshore Licence to undertake geotechnical and geophysical site investigations and ecological, wind, wave and current monitoring to provide further data to refine wind farm design, cable routing, landfall design and associated installation methodologies for the proposed Dublin Array offshore wind farm.

I wish to make the following observations/submissions:

The cumulative impact of repeated geotechnical and geophysical site investigations

The cumulative impact of repeated geotechnical and geophysical site investigations on our fragile marine environment must be considered. All cause disturbance to marine life and habitats. In the absence of designated marine protected areas we can not permit repeated disturbance. The risk of irreversible damage is too great. The biodiversity crisis is as important as the climate crisis. We must not ignore biodiversity in efforts to address the climate crisis.

Public Consultation

To date no meaningful effort has been made by Government to inform the public in a balanced way of both the pros and cons associated with such large scale near shore marine windfarms. It would appear from what has been happening so far that there is an alliance between the Government and developers and a biased drive to facilitate developers to progress their windfarm businesses. The Government has been promoting offshore windfarm development but has failed to inform the public, based on unbiased scientific evidence, of the environmental impact that may accrue from such large scale near shore investigations and development. Rather than depend on developers to do it, our Government must take responsibility for facilitating public consultation and open meaningful public debate in the exceptional context of a pandemic. No special efforts seem to have been made by Government to engage with citizens by producing user friendly, accessible, unbiased information about proposed projects and the alternatives. As a citizen I consider myself disenfranchised by the lack of unbiased public information and consultation relating to this proposal for such massive permanent alteration to our precious marine environment and coastal landscape.

Consideration of alternatives

In the rush to meet climate targets it seems that all alternatives regarding site selection and turbine type have not been given due consideration. Although great progress has been made with the development of floating turbines, they seem to have been dismissed as a possibility for the Irish East Coast. It is said repeatedly that the technology is not yet sufficiently advanced and that the Irish Sea is too deep but there is also much information available that suggests they can be used effectively in similarly adverse conditions elsewhere. It is crucial that all alternatives are given full unbiased consideration before we progress any particular projects.

Failure to designate Marine Protected Areas

In the interests of preserving the biodiversity of our fragile marine environment absolutely no disturbance to our coastal waters by developers should be permitted before we designate Marine Protected Areas. It is shameful that as an island nation we have designated a mere 2% of our marine environment for protection. Without the designation of MPAs there can be no safe site selection.

Legacy Projects

It is absolutely unacceptable that projects that submitted applications under outdated legislation, before we had the kind of environmental awareness we have now, are given special status of any kind. All proposed projects should start from scratch under the new legislation and be subject to full scrutiny in accordance with up to date best international standards for windfarm development and site selection. There should be no preferential standing based on an outdated application process.

Site selection

It is absolutely unacceptable that developers have been permitted to select sites without environmental constraints. Based on best independent expertise, sites should be selected by Government and developers should only be offered opportunities to propose projects within suitable designated zones. We rely on our elected representatives to safeguard our long term interests by setting boundaries and controlling development. Such blatant allegiance to, and preferential positioning for, legacy projects demonstrates clearly that this is not happening.

Monitoring of Compliance

Given the enormity of what is at stake it is crucial that provision is made for completely independent expert monitoring of any disturbance to our marine environment caused by investigations should a licence be granted.

Highest Standards for Environmental Impact Assessments

It is crucial that the Government engages independent expertise of the highest calibre to ensure that Environmental Impact Assessments are broad enough and conducted in accordance with current highest international standards.



Dalkey
Co. Dublin

From: [REDACTED]@gmail.com>
Sent: Friday 17 December 2021 12:25
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: submission on FS007188 RWE Dublin Array S.I.

Dear Sir / Madam please see attached my submission on FS007188 RWE Dublin Array S.I.

Please acknowledge receipt of this email.

Best wishes,

[REDACTED]
t 087 [REDACTED]

- 1 attachment: Submission, 3 page.

16.12.2021

To: Foreshore Unit, Department of Housing, Local Government and Heritage, Newtown Road, Wexford, Co Wexford

Re: FS007188 RWE Dublin Array S.I.

From: [REDACTED]

Bray
County Wicklow

Submission on Reference Number: FS007188, Foreshore Licence to undertake geotechnical and geophysical site investigations and ecological, wind, wave and current monitoring to provide further data to refine wind farm design, cable routing, landfall design and associated installation methodologies for the proposed Dublin Array offshore wind farm. Location: Off the coast of County Dublin & County Wicklow.

I object to the granting of this foreshore licence application to RWE on the following basis:

The proposed geophysical and geotechnical exploratory works are extensive (see below*) and involve drilling up to 80 m into the seabed at numerous unspecified sites, the creation of boreholes, use of dredging and otter trawl, use of sonar etc. all of which I believe will materially affect the proposed site's structure and habitat, its range of biodiversity, its benthic composition and will compromise its integrity as a potential future Marine Protected Area (MPA). From my calculations in accordance with the developer's own estimate of drilling hours, there will be a cumulative time scale of seabed drilling in and around the bay of one form or another for up to 150 days round the clock or 3600 hours over 'X' years.

The proposed investigations in many aspects seem to have more of a pre-construction scope and objective rather than that of obtaining data to ascertain the potential negative impacts on the sandbanks of the Dublin Array turbines. The nature of the proposed exploratory works, in particular the geophysical and geotechnical works and intensive use of sonar, already indicates to me a lack of care for sandbank marine habitats by proposing an excess of intrusive measures (e.g., multiple drilling points of up to 80 m over the sandbank area and surrounds).

The Kish and Bray sand banks are of established ecological importance for protected species including migratory birds, benthic and cetacean species. The banks act as natural coastal protection, and they are important fish spawning grounds and feeding and post-fledgling grounds for protected species of birds. Given this, it is incomprehensible as to why the Department and Minister are allowing the lead developer RWE (only recently involved in this project) to persist in exploratory works for a huge ORE project that intends to construct up to 61 240m – 310 m high wind turbines at a distance of 10 km from the shore. The evident visual intrusion, while focussing the immediate public concern, is ironically the lesser of the long-term real impacts that will be brought about by wind farm construction at this nearshore site.

While the applicant developers are at pains to emphasise the 'exploratory' nature of this foreshore licence application, this current application is a cohesive, indivisible part of the process to construct turbines of great height with an extensive and intrusive foundational footprint on a very sensitive site in a high amenity area. I believe it is not credible to consider in isolation the concepts of the investigative stage and construction and operation stages - these are all interlinked as part of the pressure to finalise this nearshore windfarm project under its banner of 'relevant status'. Therefore, the many negative impacts of mega-turbines on these sandbanks can likely be seen as a probable consequence of the granting of this current foreshore licence application.

Over a space of 20 years the strategy of Dublin Array seems to be to repeatedly survey an unsuitable site from a visual, ecological and even infrastructural¹ point of view, until by dint of insistence, a de facto right will be established to build this largescale windfarm on the wrong site – the Kish and Bray sand banks that stretch in front of the coastline of Bray, Killiney Bay and Dalkey.

The nearshore marine environment and coastal habitats should not be irrevocably compromised on a corporate or governmental *ipse dixit* basis by repeatedly surveying and resubmitting foreshore licence applications over and over again for the same sensitive site. Again, Dublin Array represent these survey works to be of a solely exploratory nature but reading into the description of the proposed exploratory investigations it appears to me that the works proposed under this licence application are of such a nature as to be seen in effect as site preparation for the construction of turbine foundations and cable laying. It appears to me that the greatly increased extent (1130km²) of the area proposed for exploration is also indicative of mission creep as to the scale and impact of the project.

Why is Dublin Array's proposed site for exploratory surveys still based on and around the Kish and Bray sand banks and why does it enclose an even greater area of the bay which will impact even further on marine and coastal habitats and established SACs and SPAs? I note that in this foreshore licence application, once again, no alternative site is proposed. I believe the lack of proposed alternative sites (which I thought was a requirement of the foreshore licence process) leads to a confirmation bias in relation the outcome of exploratory surveys for the same site. What is more, the developer's given justifications for the site selection are based mainly on project cost advantages to the developer and nearness to landfall for cables. If the landfall site is to be Poolbeg the cable will also have to pass through the Rockabill to Dalkey SAC, rendering this project even more ecologically impactful – a problem that should clearly be addressed at this stage by not granting this foreshore licence application.

I believe that the information provided on the effect of geophysical and geotechnical exploratory investigations and ecological, wind, wave and current monitoring, in particular the prolonged use of borehole and core penetration drilling and the intensive use of underwater scanning of various types does not provide complete, precise and definitive information capable of removing all reasonable scientific doubt as to the effects of the works with reference to sandbank habitats, marine habitats, pelagic and benthic fauna, cetaceans and migratory birds. I believe that the granting of this foreshore licence could play a part in the degeneration of the sandbanks and the coast that they protect as has been outlined in studies on the South Dublin sandbanks:

Once formed, the banks' interaction with metocean conditions is sufficient to maintain their spatial and altitudinal configuration *within certain limits...* unless metocean conditions exceed a certain threshold... If this threshold is crossed then a rapid turnover of the system may ensue until a new littoral equilibrium is reached. Were the banks to be removed, not only would a reconfiguration of the tidal current occur and wave energy become more focused on the present protected coastline, but it is unlikely that the present metocean conditions would facilitate a regeneration of the banks ... *at present it is not possible to say with certainty the degree of change or the threshold tolerances of these banks. Anthropogenic interference in littoral processes could also affect this.*²

¹ Blueprint for Offshore Wind in Ireland 2020 – 2050 "In addition, the tidal regime and the abundance of sediment south of Dublin Bay has led to the formation of a number of sand and gravel banks with potentially *high sediment mobility which can provide design and operational challenges for offshore wind farms.*" <https://www.marei.ie/wp-content/uploads/2020/07/EirWind-Blueprint-July-2020.pdf>

² Wheeler, Andrew & Walshe, Jim & Sutton, Gerry. (2001). Seabed mapping and seafloor processes in the Kish, Burford, Bray and Fraser Banks area, South-Western Irish Sea. Irish Geography. 34. 194-211. 10.1080/00750770109555787

* “Dublin Array Offshore Wind Farm, Annex E: Report to inform Appropriate Assessment Screening, Site Investigation and Ecological Monitoring Works Geotechnical Survey:

- Up to 61 geotechnical wireline-logged boreholes within the proposed array area covering the full site. These boreholes will be to a target depth of, approximately, 80 m below the seafloor and have a diameter of up to 254mm;
- Up to 61 deep push seafloor Cone Penetration Tests (CPTs) within the array area, to a target depth of, approximately, 80 m depth below the seafloor and have a diameter of approximately 40mm; Page 19 of 119
- Up to 31 seafloor CPTs with a diameter of approximately 40mm and 48 vibrocores with a diameter of approximately 150 mm diameter. These will be located within the Offshore ECC, extending into the array. Both techniques will be to an approximate depth of 6 m below the seafloor, five of each may be located within the intertidal area;
- Up to 12 nearshore geotechnical wireline logged boreholes and rotary cored drilling, approximately 100 mm diameter to a target depth of 45 m below seafloor (four at each landfall option).

Geophysical Survey

- A 2D Ultra High Resolution Seismic (2D UHR) survey and full suite of geophysical surveys for the array area (including a bathymetric survey, Side Scan Sonar (SSS), Shallow Reflection Seismic (Sub-bottom Profiling [SBP] and Marine Magnetometer [MAG]);
- A full suite of geophysical surveys for the Offshore ECCs (including a bathymetric survey, SSS, SBP and MAG survey; and
- Refraction survey at proposed export cable landfall locations including nearshore and intertidal area.” (p 19).

From: [REDACTED]@gmail.com>

Sent: Friday 17 December 2021 18:33

To: Housing ForeShoreORE

Subject: FS007188 RWE Dublin Array S.I.

Follow Up Flag: Follow up

Flag Status: Completed

A chara,

I am making an objection to the proposal by RWE, the German company to construct a wind farm on the Kish and Bray Banks, and the new application for a Foreshore Licence to carry out additional site investigation. The current application covers a significantly larger area. It extends in a west-east direction from the shore line to what appears to be the 12 nautical mile limit (22.2Km). The Irish government seems determined to ignore the internationally recognised importance of **site selection** as the key to avoiding negative environmental impacts of offshore wind. Instead, the government appears to be actively supporting international energy companies in their bids to lay claim to vast areas of Ireland's near shore waters, with a view to constructing enormous turbines on sites selected decades ago with no environmental constraints.

Surely our coasts warrant environmental protection!

While this licence application is **not an application to construct**, it facilitates site investigation, when it is abundantly clear that near-shore sites on vulnerable habitats are totally unsuitable for such vast industrial developments, when obvious alternatives are available.

I therefore object to any licence being granted for any further exploration work to be carried out.

Thanking you,

[REDACTED]

From: [REDACTED]@gmail.com>
Sent: Friday 17 December 2021 17:29
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: Observation: FS007188

Dear Sir/Madam,

Please find attached an observation for licence application FS007188.

Regards,

[REDACTED]
(Concerned Local Resident)

- 1 attachment: Submission, 7 page ,

Dublin Array license application FS007188 Observations

1. Remaining Risks/Lack of Robust Scientific Data:

Granting of this license would contravene article 6(3) of Directive 92/43/EEC ('the Habitats Directive') by failing to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works.

- Fish (particularly non-commercial variety), bird species and cetaceans in and around the site location and impact on the same has not been adequately assessed. This may result in a contravention of the Birds Directive (Directive 2009/147/EC) as well as the habitats directive (92/43/EEC).
- Annex E, Paragraph 6.2.6 states:

“For the equipment used within the proposed works, SSS and MBES surveys, the frequency ranges vary between 190 and 420 kHz (MBES) and 300/900 kHz (SSS). All these systems fall outside the hearing threshold of all species (harbour porpoise has the highest frequency range of 200 Hz to 180 kHz (Southall et al., 2007)). Magnetometer surveys are passive systems and do not emit a signal or generate underwater noise. Therefore, it is considered that there would be no potential for injury or disturbance to any cetacean or fish species from these equipment.”

However, though the specific SSS and MBES used in this license may not effect marine mammals, Sub Bottom profiler (boomer, SBP) and UHR operate at a frequencies within the range of harbour porpoises, which may be performed over a 24 hour period. Additionally DP Vessels noise range is within the audible range of the Harbour Porpoise and no assessment of the risk, nor any mitigation measures are provided. Therefore there is insufficient evidence that the proposed works, individually, or in combination with other plans or projects, is unlikely to have a significant effect on any European Site/s subject to specific mitigation measures.

- Paragraph 6.2.15, Annex E presents an unacceptable argument for the use of SPL assessment of noise levels over the use of the current gold standards, SEL. The recent license application on Arklow Bank successfully calculated noise levels using SEL technique and there is no technical reason why this could not also be adopted by this developer. The availability of 'easy calculate figures' in the literature does not represent a reasonable excuse for not developing figures where they are lacking. This does not represent an appropriate assessment.
- Paragraph 6.2.15 Annex E states that:

“While the sound levels from drilling may result in some degree of localised disturbance to marine mammals any disturbance would be expected to be small-scale and short-term with surveys lasting

approximately 2 -3 months, with no effects lasting beyond the period of the works.”

Even if not permanently deafening these creatures, the prolonged noise created by the proposed license, over the license period, will inevitably force them to avoid the wider area (250 km considered as a buffer for cetaceans, as stated 3.3.6 Annex E) and reduce their feeding grounds. Given that much of this work is occurring both in and around Rockabill to Dalkey Island SAC, this will have a knock-on effect on their populations and, as a result, the status of their SAC. Combining this with other adjacent projects along the coast, this could have a really large effect on local populations.

- Paragraph 6.2.16 of Annex E states that:

“Modelling for sound levels from drilling works for offshore wind farms (e.g. East Anglia Two Offshore Wind Farm) identified that the threshold for PTS and TTS onset for all marine mammal hearing groups would be less than 100 m from a drilling vessel.”

Yet no reference to the proposed modelling is provided and it appears that much of the assessment is based on this figure, the basis on which it was calculated remains unknown. The recent license application on Arklow Bank (FS007339) indicated a TTS for high frequency cetaceans (incl. phocoena phocoena aka Harbour porpoise) of 757m for vessels using DP (as is proposed in this license application) and 607m for vibro-coring. Therefore, given the lack of evidence presented in this application fails to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works and granting of this license would contravene article 6(3) of Directive 92/43/EEC.

2. Insufficient Evidence or Mitigation Measures:

There is insufficient evidence that the proposed works, individually, or in combination with other plans or projects, is unlikely to have a significant effect on any European Site/s subject to specific mitigation measures.

- AA screening information in relation to matters including the bird species studied, the impact of underwater noise on bird species, a lack of clarity in relation to the proximity criteria and zone of influence used in screening sites and a failure to present evidence to support conclusions in relation to in combination effects.
- Likely significant effects in combination with other plans or projects were not assessed, including combined effects of past investigations in the area.
- The license application indicate that ‘The exact locations will be determined prior to undertaking the site investigation works’ however, no detailed grounds on which these determinations will be made has been outlined, therefore no appropriate determination can be made on whether this will adversely affect the integrity of local sites

- Granting of benthic grabs/trawls, without preceding drop down camera, ROV or SCUBA dives of the site is poor international practice and may result in the damage to sensitive habitats
- The additional mitigation measures “proposed to allow for the presence of harbour porpoise calves during the months of May to September” of “sound producing activities shall not commence until at least 45 minutes have elapsed with no marine mammals detected within the Monitored Zone by the MMO” is totally inadequate and as such a likely significant risk remains in place and approval of this license would constitute a contravention to the habitats directive.
- “SAM deployment will take approximately two weeks during mid 2022” (I assume during the geophysical survey), “independent of other surveys, the equipment will remain on site for the duration of the Foreshore Licence to provide a long term data set of pre construction monitoring of marine mammals;” Why not deploy the SAM in advance of the other surveys to ensure that Harbour Porpoise and other marine mammals are not in the Zone of Influence (250 km considered as a buffer for cetaceans, as stated 3.3.6 *Annex E*) prior to starting the geophysical and geotechnical works. This could not only act as a further mitigation measure but also provide scientific data (which should be published open access) on the effects of acoustic disturbance in and on sensitive SACs whose qualifying interests are Harbour Porpoises.
- With regard to mitigation measures in place to inhibit PTS in marine mammals, no mention of the use of passive acoustic monitoring (PAM) has been mentioned, which would be required for the ‘qualified observer’ to ensure that no marine mammals were present within the zone of inhibition prior to initiating noise creating works. An observer, no matter how qualified will likely miss sensitive marine mammals in the vicinity without the use of this apparatus and as such a likely significant risk remains in place.
- According to the Natura 2000 statement, “the Conservation Objectives to maintain the favourable conservation condition of Harbour Porpoise (*Phocoena phocoena*) [1351] within the Rockabill to Dalkey Island SAC, are defined by the following list of attributes and targets:
 - Species range within the site **should not be restricted by artificial barriers** to site use; and
 - Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site.”

Both as a result of noise disturbance and physical destruction of reefs, there is admittedly by phase 1 assessment in the Natura 2000 Statement presented, a “potential for adverse effects” on the qualifying interests (QIs) of the SAC.

As outlined in the Natura 2000 statement presented:

“With regards the harbour porpoise feature and the temporary overlap with the calving period of harbour porpoise (May to August) within Rockabill to Dalkey SAC, the noise associated with the proposed works described in Section 6.2 and 6.3 of Annex E: Report to Inform AA Screening have the potential for localised disturbance and have

potential to disturb and/or displace fish prey items of all cetacean and pinniped species resulting in localised indirect effects”

Section 4.2.6 (p. 60) of the Natura 2000 statement states that “given that any noise impacts on cetaceans and their prey would be short term, temporary and intermittent... potential for disturbance to the species will be minimised and no impacts on the Conservation Objectives of the SAC are predicted.” I do not accept this statement and would present that the noise disturbance and inhibition of QI species and their food source represents a “**restriction by artificial barrier**” and is contraindicated by the conservation objectives of the SAC.

3. Unregulated Development Environment:

Granting of this license would contravene article 6(3) of the Habitats Directive by granting a consent to a project which leaves the developer free to determine subsequently certain parameters without first having made certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

- The development consent, if granted, should establish conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site. This is not evident from this application
- The number and type of benthic grabs and trawls is unclear,
 - in some instances only grabs are mentioned,
 - in some instances biological trawls are mentioned.
 - In some areas of the application 30 grabs are mentioned,
 - in other areas 90 grab samples are mentioned,
 - yet other areas (Annex E, p.19) states annual sampling for 3 years, including 90 grabs and 90 epibenthic trawls are mentioned
 - yet other areas (license application) 1-2 weeks/year for up to 3 years is mentioned, which if only a single grab per period was carried out would result in 78 grabs. The license in this regard is unclear and as such the department cannot effectively ascertain if there is a likely significant impact on Natura 2000 sites and as such, represents a contravention of the habitats directive.
- The license application area is large relative to the size of the area wherein specifically described activities and monitoring are to take place, particularly to the south. It is unclear from the application why the proposed area is so large and if unspecified activities such as benthic grabs/trawls are to be carried out in the greater license area. If this is the case then further cumulative impacts should be assessed, as the area has recently undergone multiple benthic grab surveys. As this cannot be ascertained for the enclosed documents the department cannot effectively ascertain if there is a likely significant impact on Natura.
- The license application states
 - “The inter-tidal and sub-tidal geotechnical sampling locations will be selected after review of the geophysical and environmental data*

collected during the 2020 Site Investigation campaign. The data will be reviewed for the presence of potential ecological features such as subtidal geogenic reef. Sampling locations will then be micro-sited where necessary to avoid ecological (as well as archaeological) impacts.”

This represents a likely significant risk that is not clearly defined at the licensing stage and it is left to the developer to decide what constitutes an ecological feature, such as subtidal geogenic or subtidal biogenic reef. As such the license fails to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works. Approval of such license would contravene article 6(3) of Directive 92/43/EEC (‘the Habitats Directive’).

- The license application states
“To prevent damage to saltmarsh and sand dune habitat all access to the Poolbeg intertidal by track machine will be supervised by an ecologist to ensure these sensitive areas are avoided.”

This represents a likely significant risk that is not clearly defined at the licensing stage and it is left to the developer (or developer employed ecologist) to decide what constitutes a ‘sensitive area’. As such the license fails to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works. Approval of such license would contravene article 6(3) of Directive 92/43/EEC (‘the Habitats Directive’).

- The license application states that in carrying out intertidal works at South Dublin Bay and River Tolka Estuary SPA that “an ecologist will be employed to ensure that disturbance is minimised”. Not alone is this an admission of disturbance but it represents a likely significant risk that is not clearly defined at the licensing stage and it is left to the developer (or developer employed ecologist) to decide what constitutes damage to site integrity.
- The license states that:
“If roosting birds are present on the shore during intertidal works, the nearby sample stations will be postponed until the birds depart, without provocation.”

It is not clearly defined, at what stage resumption of work will proceed, *e.g.* after the roosting birds have departed, after the chicks have departed. As such the license fails to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works. Approval of such license would contravene article 6(3) of Directive 92/43/EEC (‘the Habitats Directive’).

- The license states that:
“If for any reason access by sea to the near-shore or intertidal sample locations is not possible, any temporary access arrangements or structures that are put in place to allow machinery access to the beach

area will be prepared in consultation with an ecologist and the site should be fully reinstated post works.”

It is not clearly defined. Though this may seem like a minor point, access risks should be examined and outlined in the license application and should be appropriately assessed. No such examination appears to be included in the application. As such the license fails to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works. Approval of such license would contravene article 6(3) of Directive 92/43/EEC (‘the Habitats Directive’).

- The license states that:
“Reinstatement of the intertidal habitat will be carried out to pre-survey conditions. Spoil from boreholes would be contained and removed off site.”

It is not clearly defined, exactly how boreholes will be reinstated to their pre-survey condition, while spoils are being removed off site. I assume that material removed from bore holes will be mixed, containing both surface material and deeper sediments. Deeper sediments can contain heavy metals hydrocarbons, nutrients and other potential contaminants. The developer does not appear to have defined how exactly they plan to deal with this issue to avoid contamination of local areas and species. As such the license fails to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works. Approval of such license would contravene article 6(3) of Directive 92/43/EEC (‘the Habitats Directive’).

- *Annex E: Report to inform Appropriate Assessment Screening* (4.1.3) states that:

“The indicative locations of the survey areas which form the scope of the proposed works are shown in Figure 3 to Figure 7. The final geotechnical and ecological sampling locations and buoy deployment positions will be selected after a review of the most up to date geophysical data available in advance of selection of the sampling stations. The data will be reviewed for the presence of anomalies of potential anthropological origin and potential for ecological features such as subtidal reef. Locations will be micro-sited where necessary to avoid archaeological or ecological impacts. As such, no figure is provided for the benthic sampling locations, but taking a precautionary approach it has been assumed that samples could be taken anywhere across the Foreshore Licence application area.”

The license fails to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works. Approval of such license would contravene article 6(3) of Directive 92/43/EEC (‘the Habitats Directive’).

- Choice of benthic grab methods is not clear and is of utmost importance in attaining correct data for the next stage of the appropriate assessment of the proposed wind park. Biological trawls are considerably more beneficial in

some instances and a clear indication of what will and will not be discovered by these methods should be outlined.

4. Cumulative Impact:

The current license application appropriate assessment fails to take into account properly or at all the cumulation of the impact of the project with the impact of other existing and/or approved projects contrary to article 4(3) and Annex III. Granting of this license would be a breach of article 4(4) by failing to ensure that the project was properly described in terms of cumulation of impacts.

- The cumulative impact of the granting of multiple licenses in the area for surveys such as these will have a cumulative impact which has not been appropriately assessed. As such, granting of this license would constitute a breach of the habitats directive.
- No cumulative assessment has been made of the very real possibility that two developers could be conducting similar site survey work including boreholes and cone penetration tests in the same area at the same time.
- In combination effects the applicant only considers synchronous events and synchronous licenses/leases and do not give any consideration to prolonged repetitive surveying, dredging and noise in the area, impacted by past licenses/surveys, such as their own previous surveys as recently as 2019. In fact, it is not made clear in the application why repeated benthic grabs/trauls is required and may cause significant impact to benthic communities.

From: [REDACTED]@gmail.com>
Sent: Friday 17 December 2021 16:51
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: FS007188 RWE Dublin Array S.I.

Good afternoon,

We would like to submit an objection to the above application on the basis of the proximity to the shoreline and the detrimental effect on the surrounding area, among several other factors.

Regards,

[REDACTED]
[REDACTED]

Marino Avenue East
Killiney
Co. Dublin

From: KILLINEY COMMUNITY COUNCIL <info@killineycommunitycouncil.ie>
Sent: Friday 17 December 2021 18:16
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: FS007188 RWE Dublin Array S.I.

To: [Department of Housing, Local Government and Heritage](#)

**CONSULTATION FS007188 - RWE RENEWABLES IRELAND
SITE INVESTIGATIONS FOR THE PROPOSED DUBLIN ARRAY OFFSHORE WIND FARM**

From:
KILLINEY BAY COMMUNITY COUNCIL
FS007188 RWE Dublin Array S.I.

We refer to the RWE Renewables Site Investigations for the proposed Dublin Array Offshore Wind Farm Foreshore Licence.

Specifically, we refer to the Geophysical and Technical specifications. These are indicative of site preparation for infrastructural works on the Kish and Bray banks, within an area of 1,130 square kilometres within the Killiney Bay area.

What is lacking in this application for this Foreshore Licence:

1. Reference to historic applications for a single proposed project, and concomitant historic failures in winning a Foreshore Licence, with reference to making provision to rectify these before a new Foreshore Licence process can proceed.
2. Consideration of alternative sites: In an application for a Foreshore Licence, it is necessary for the applicant to consider alternatives. (This applies to both Lease and Licence applications.)
3. A visual representation of the proposed turbines in Killiney Bay. We cite the Offshore Energy Strategic Environmental Assessment Review and Update of Seascape and Visual Buffer study for Offshore Wind farms Final Report for Hartley Anderson March 2020. Visual impact studies consider impingement on shorelines to be critically important, especially adjacent to high amenity tourism beaches.

In connection with these omissions, Killiney Bay Community Council (KBCC) note the following protections proposed for Killiney Bay:

1. Killiney Bay is adjacent to the southern end of the UNESCO Dublin Bay Biosphere Partnership. This includes management by Fingal County Council, Dublin City Council, DLR County Council, Dublin Port Company and the National Parks and Wildlife Service of the Department of the Arts of Housing, Local Government and Heritage and the Gaeltacht. We have initiated a proposal to obtain an extension of the Biosphere to include Killiney Bay.

2. Killiney Bay includes the Special Area of Conservation area, as per the Dun Laoghaire Rathdown County Council Supplementary Map of the Ecological Network adjacent to Dalkey Island:
https://www.dlrcoco.ie/sites/default/files/atoms/files/supplementary_map_b1_ecological_network_map_1.pdf

3. Killiney Beach is the recipient of the Bord Failte Grant of approximately €1M for the construction of an amenity centre for watersports. See <https://www.failteireland.ie/tourism-news/19m-investment-announced-water-based-activity-facilities.aspx>

In the context of these protections, we examine the proposed objective to install 40-61 turbines, 240 to 310 metres high, on the Bray and Kish Banks.

Analysis of the extensive detail presented in this RWE Renewables Ireland Geophysical site investigation, reveals an intention to construct the platform for the proposed turbines on one inshore site, the Kish and Bray Sandbanks, 9 km from Killiney Bay. This is not a site evaluation. This is preparation for site construction. The term "Ipse Dixit" is appropriate in this case: the assertion is, "this is just how it is". This de facto sense of ownership by RWE Renewables of these sandbanks is controlled by opting out of alternative arguments: declaring that this issue is intrinsic, and not open to change. This logical fallacy uses an assertion that the Kish Bank and Bray Bank square, as shown on Dublin Array site maps, is the only site available in Killiney Bay.

We look at the alternative choices:

Should the Array of this dimension be installed 9 km distant from Killiney Beach?

Should 40-61 turbines, 240 to 310 metres high be allowed to gate, or fence off, the horizon?

Should the Array be installed further out, at 22 km?

Should the Array consider more innovative technologies such as 'Floating turbines'?

In this regard, we consider navigation issues and geotechnical survey issues.

Navigation Issues

We believe that the information we receive from RWE Renewables does not 'provide complete, precise and definitive information capable of removing all reasonable scientific doubt as to the effects of the works' with reference to the selection of a 22 km distance for the installation of floating turbines.

We note the proximity of the Array to a confluence of shipping lanes, as described in 4.6 Navigation, Document Number [003747593-01](#):

The busiest of these shipping lanes originate and depart from Dublin Port, located to the North West of the survey area. Dublin Port caters for freight, passenger and cruise liners. In 2019 Dublin Port processed 38,100,000 tonnes of freight together with 1.949 million passengers and 158 cruise ships. The total number of ship arrivals was 7,898. Although the distance between Dublin Port and Holyhead is 113 km, there is capacity for the construction of floating turbines at, or within, the 22 km distance from shore recommended by the EU.

We note that in this context, the selection of an alternative site for floating turbines at, or within, the distance from shore of 22 km, must be carried out. This is a condition for an application for a Foreshore Licence: that it is necessary for the applicant to consider an alternative site. (This applies to both Lease and Licence applications.)

Geotechnical Survey Issues

We believe that the information provided does not 'provide complete, precise and definitive information capable of removing all reasonable scientific doubt as to the effects of the works' with reference to:

1. The integrity of the Kish and Bray Banks.
2. The term '**pre-construction survey**' or 'Array area' determines and reinforces and confirms the premise that this will be the area identified for construction, regardless of distance from shore, height of the turbines or ecological effect.
3. The effects of the works proposed, in connection with the site investigations to be employed in the installation methodology of this Geotechnical Survey, far exceed the limits of previous surveys. Therefore we request an alternative model of the Site Investigations for the proposed Dublin Array Offshore Wind Farm.

We question the purpose of the Geotechnical Survey of site Investigations for the proposed Dublin Array Offshore Wind Farm. Although RWE Renewables state there is a necessity to examine foundation design, the size and installation methodology and to finalise cable route and landfall design and installation methodology, we consider this work as effective preparation for construction.

RWE Renewables Site Investigations for the proposed Dublin Array Offshore Wind Farm far exceed the scope of previous surveys of the Kish and Bray Banks, which adhered to a limited definition of such investigations. RWE Renewables' description of the machinery required for foundation design and installation methodology far exceed the limits of previous surveys, and do not appear to have respected the extensive and relevant information already collected about the formation and ecology of these sandbanks, and their role in the mitigation of coastal erosion.

The following site preparation tests, outlined in RWE's Site Investigation document, have a survey purpose, and, as we understand this, the inclusion of an installation purpose, which will irrevocably damage the Kish and Bray sandbanks, even if restoration work is carried out. See 4.2 Impact Assessment Predicted Effects included in RWE Renewables Site Investigations for the Proposed Dublin Array Offshore Wind Farm, FS007188Annex C - EIA Screening and Environmental Report.

The machinery required for foundation design and installation methodology:

Cone Penetration Tests (CPTs) in the Array area and the export cable corridor: Up to 61 seafloor CPTs up to an approximate geologically shallow depth of 80m below seafloor are proposed within the Array area and 31 CPTs to an approximate depth of 6m below the seafloor in

the export cable corridors which extend into the Arra, 3 In the subtidal locations a CPT rig will be lowered to the seafloor from a suitable vessel by a deck mounted crane or A-frame. An instrumented cone, with a diameter of approximately 40mm, will then be pushed into the seabed at a constant speed. Continuous measurement of the cone end resistance, the friction along the sleeve of the cone and the pore water pressure will be recorded. The cone will then be recovered to the rig and the rig returned to the vessel. The duration of operation at each CPT location within the array area is expected to be up to 6 hours. In the intertidal area a similar process will be undertaken from a tracked vehicle.

Vibrocores will be taken across the export cable routes which extend into the Array. Up to 48 vibrocores, approximately 150 mm diameter and penetration depth of up to approximately 6 m will be taken. Five of the 48 vibrocores may be located within the intertidal areas. A vibrocore rig will be lowered to the seafloor from a suitable vessel by a deck mounted crane or A-frame. A vibrocore head will be attached to the core barrel and will induce high frequency vibrations in the core liner. The sediment in immediate contact with the core barrel forms a 'liquefied' boundary layer enabling the core barrel to penetrate the sediment strata. A core catcher is attached to the end of the barrel which holds the sediment inside the barrel when withdrawn from the sediments. Each core would have a sediment sample volume of approximately 0.05 m³. The expected duration of the vibrocore operation at each location is less than 5 minutes. In the intertidal a similar process will be undertaken from a tracked vehicle. The cumulative time dedicated to vibrocores will be 150 days, continuing the full 24 hours.

Boreholes

Up to 61 subtidal boreholes to a geologically shallow depth of 80 m below seafloor are proposed within the array area to target proposed foundation locations. A borehole is a method of drilling into the seabed to recover samples and enable downhole geotechnical testing to be completed. A drilling head is lowered to the seabed via a drill string with an outside diameter of up to 254 mm and stabilised using a seabed frame. The drill string is then rotated to commence boring. Tools are lowered into the drill string to recover samples or conduct in-situ soil testing. The drilling flush and drill cuttings are largely returned to the vessel and re-used or returned to shore for disposal, however some loss of flush and cutting should be expected. All drilling fluids will be fit for purpose and where possible selected from the 'OSPAR List of Substances/Preparations Used and Discharged Offshore which are considered to Pose Little or No Risk to the Environment'. The offshore boreholes will be left to back-fill naturally. The duration of the operations at each borehole location within the array area is expected to be approximately 48 hours. Four boreholes are also planned at each of three possible landfall locations (i.e. 12 in total). The nearshore boreholes will be in water depth of 0 to 7 m and will be to a target depth of 45m below seafloor. The external diameter of the drill pipe will be approximately 100 mm. The nearshore boreholes would either be backfilled or grouted to within 2m of surface of the base of mobile sediment typically using a 2:1 bentonite cement mix. The surface will be reinstated to previous condition as the investigations at each location are completed. Pre and post investigation site photographs will be taken. The duration of the operations at each borehole location within the intertidal area is expected to be approximately 36 hours.

We note that the effect of constant noise over long periods of time on porpoises, seals and other cetaceans will be devastating. Most of these gather in the crook of the north end of Killiney Beach, continuing onward through the curve to White Rock, and on to Dalkey Island, and are adjacent to the SAC area as noted in the supplementary map listed below.

Killiney Bay Community Council trusts that the Department of Housing, Local Government and Heritage will take these observations into consideration regarding the above application.

Kind regards

 on behalf of
Killiney Bay Community Council

References:

https://www.dlrco.ie/sites/default/files/atoms/files/supplementary_map_b1_ecological_network_map_1.pdf

Offshore Energy Strategic Environmental Assessment Review and Update of Seascape and Visual Buffer study for Offshore Wind farms Final Report for Hartley Anderson March 2020

www.whiteconsultants.co.uk

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/896084/White_Consultants_2020_Seasca

Tel: 029 2236 2416 Email: sw@whiteconsultants.co.uk

4.2 Impact Assessment Predicted Effects: RWE Renewables Site Investigations for the Proposed Dublin Array Offshore Wind Farm, FS007188 Annex C - EIA Screening and Environmental Report.

From: [REDACTED] <wildireland.defence@gmail.com>
Sent: Friday 17 December 2021 15:30
To: Housing Foreshore <foreshore@housing.gov.ie>
Subject: Submission to Foreshore Licence Application FS007188

To: Marine Environment and Foreshore Section, DHLGH at:
foreshore@housing.gov.ie.

From: Wild Ireland Defence CLG at wildirelanddefence@gmail.com

Re: Submission to Foreshore Licence Application FS007188 regarding the Dublin Array Offshore Windfarm.

Date: 17 December 2021

A chara,

Re: Submission to Foreshore Licence Application FS007188 regarding the Dublin Array Offshore Windfarm.

The following submission is made in good faith and based on concerns regarding environmental protection and the current dire and worsening state of biodiversity at national and international levels. Biodiversity loss has been identified as a planetary emergency. A report published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBS) in 2019 highlights that:

“Nature is declining globally at rates unprecedented in human history — and the rate of species extinctions is accelerating, with grave impacts on people around the world now likely, ...” (available at: <https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>).

The 2019 ‘Status of EU Protected Habitats and Species in Ireland’ Report indicates the declining state of our most valuable habitats and species in our care. The environmental NGO Irish Wildlife Trust (IWT) comments that the report paints a dire picture for biodiversity in Ireland and once again stresses the depth of the extinction crisis here:

“The report, presented to the European Commission, shows that 85% of our habitats are in ‘unfavourable’ condition and that there have effectively been no improvements since the last report was published in 2013. It shows that our native woodlands, sand dunes, bogs, uplands, lakes, rivers and marine habitats continue to be in poor condition while a massive 45% are considered to be deteriorating – something which is unacceptable and in contravention of EU law. While the picture is somewhat better for species, with 57% of those assessed at ‘favourable’ status, there continues to be no improvement in status for species such as Atlantic Salmon, the Freshwater Pearl Mussel or the White-clawed Crayfish which are all threatened with extinction. (Available at: <https://iwt.ie/press-release-new-report-highlights-the-extent-of-the-irish-extinction-crisis/>)

In May of 2019 the Dáil declared a state of National Biodiversity Emergency. However, Ireland failed to meet its international target of protecting ten per cent of its marine environment by 2020 having designated just over two per cent of Irish waters with protection status. The following article notes Ireland’s performance as the second lowest percentage in Europe; a disheartening fact when one considers that Ireland possesses a marine area ten times greater than her land mass.

Ireland has an international target of [protecting 10 per cent of waters by 2020](#) and 30 per cent by 2030. Currently, just over two per cent of Irish waters are protected, the second lowest percentage in Europe.

The vast majority of this is for estuarine and coastal waters, with little to no protection of Irish deep-sea waters to date despite possessing a marine territory 10 times our land mass. (Available at: <https://greennews.ie/seanas-pass-motion-state-protect-marine-life/>)

Responding to the ecological crisis at an international level the EU Commission concludes that both the Habitats and Birds Directives (providing strict protection for protected habitats and species) remain fit for purpose. However, the need to better implement both directives is emphasised:

Commission evaluation shows Nature Directives are fit for purpose

On 16/12/2016 the Commission has published the 'Fitness Check' evaluation of the EU Birds and Habitats Directives (the 'Nature Directives') and concluded that, within the framework of broader EU biodiversity policy, they remain highly relevant and are fit for purpose. ...

However, full achievement of the objectives of the Nature Directives will depend on substantial improvement in their implementation in close partnership with local authorities and different stakeholders in the Member States to deliver practical results on the ground for nature, people and the economy in the EU. (Available at: https://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm)

Our coastal and marine environments are experiencing ever increasing pressures from various developments, including the development of offshore alternative energy. These developments must be reconciled with meeting the State's commitments regarding environmental protection. Blind faith in technologies termed 'renewable' fails to mitigate loss of biodiversity. It is imperative that all EU legal instruments supporting the sustainable development and coexistence of relevant but conflicting activities in our marine environment are fully and consistently implemented. The achievement of Good Environmental Status as provided for in the EU Marine Strategy Framework Directive must prevail.

The foreshore licence application (FS007188) presented to the public is incomplete. Absent for consideration are statutory environmental protection assessments and related determinations by the relevant competent authorities as required under EU legislation. Absent also in the submitted application are the expert observations of statutory consultees and relevant environmental NGOs relating to possible environmental impacts of the proposed foreshore development.

The application form and supporting documents released to the public contain information which has been redacted. It is unclear why the public has been denied access to the redacted information. The redacted data compromise matters surrounding the objectivity, validity, scientific quality, and transparency of processes at issue.

It is unclear from the information submitted whether the proposed Offshore Windfarms to which the foreshore licence application pertains have been granted foreshore lease consents or not. Concern is raised regarding the possibility of the circumvention of relevant statutory EU environmental impact assessments. It appears that site investigations have been in operation under various foreshore licences for twenty one years (since August 2000) for projects which may or may not have foreshore development consents. The supporting information submitted by the applicant indicates that the current foreshore investigation licence application is sought in order to provide "a more comprehensive geotechnical investigation" compared to previous geophysical survey fieldwork conducted between February and May 2021 under Foreshore licence FS007029. (2021, 'Foreshore Licence Application for Site Investigation and Ecological Monitoring', Section 1.5, 'Previous Foreshore Lease/Licence Applications'). It is essential that the error of project splitting is avoided in statutory assessments. Considering the location, nature

and size of the project at issue, it is unclear why the competent authority would determine a Stage 2 assessment under the provisions of the Environmental Impact Assessment Directive unnecessary.

In addition it is crucial that any foreshore licence consent granted demonstrates support for a coherent scientifically based network of marine protected areas as envisioned by the EU Maritime Spatial Planning Directive.

The foreshore licence application subject to public consultation fails to demonstrate compliance with the State's obligations under the Birds and Habitats Directives. The competent authorities must ensure that the statutory Appropriate Assessment screening attains the precise objectives of the assessment as required under the provisions of the Habitats Directive and as set out in *Kelly v. An Bord Pleanála* [2014] IEHC 400 and in the CJEU decision in case C-323/17. At this time of unprecedented loss of biodiversity it is critical that the competent authorities ensure that the appropriate assessment to be conducted clearly demonstrates the **precautionary principle** which underpins the Habitats Directive as derived from the EU Treaty and is developed in the case law of the CJEU and Irish courts.

As noted above, it appears that the Foreshore Licence application at issue (referenced FS007188) is inconsistent with the State's obligations under the Aarhus Convention and EU environmental protections directives, e.g. the Birds and Habitats Directives and the Environmental Impact Assessment Directive.

Please acknowledge submission receipt.

Is mise le meas,

██████████

Thar cheann Wild Ireland Defence CLG,
High Street, Ballinamore,
Co. Leitrim.



Virus-free. www.avg.com

From: [REDACTED]@yahoo.ie>
Sent: Friday 17 December 2021 11:21
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: FW: Comments on RWE Foreshore Licence Application

FS007188 RWE Dublin Array S.I
Public Consultation.
Site investigations for the proposed Dublin Array offshore windfarm.

Proposed Cable Link site surveys at Shanganagh Cliffs Killiney.

As the survey area has expanded to include a larger area of foreshore at Killiney/Shanganagh and Hackettsland townlands in South Killiney Bay we have some concerns.

River Estuaries

Shanganagh River: A healthy salmonid river 50 years ago and still supports Sea Trout, possibly eel and mammals such as Otter along the wetland and wildlife corridor to Loughlinstown Woods pNHA upstream where lamprey were observed in spring 2021.

The river mouth is within a few hundred metres of the apparent cable corridor route and undersea trenching and borehole drills. It is part of the Dublin Urban Area Rivers Life Project. Water quality took a dip in midsummer 2021

Deansgrange River Estuary: though culverted, this discharges via a narrow channel on to the shore.

Though the rivers typically discharge to the sea in meandering channels and form lagoons the natural process has been disrupted by necessary regular dredging on the shoreline as a flood prevention measure (DLR)

Both rivers showed a dip in water quality in summer 2021 probably due to upstream pressures. Scum in the Shanganagh lagoon in May was queried and may have been due to tidal algal bloom being trapped in when the seawater retreated. There may also have been impacts on shoreline biota in 2021 with impacts on Baseline Data in Fugro ship survey.

Flood Risks

This section of shore is now at High Risk for Coastal Flooding (see flood maps attached to DLR Draft County Development Plan in November 2021) and still in an extended public consultation period. The combined risks of coastal flooding, pluvial and alluvial flooding and occasional flash floods in the past 12 years have to be factored in to shoreline survey activity with reference to the latest information, CFRAM and DLR Coastal Flooding Reports. The latest Flood maps have only recently been made available on-line for public viewing.

River channels must be kept open to prevent serious upstream flooding that can put lives and homes at risk.

The enclosed space between old and new railway lines and bounded by the rivers is a natural Flood Plain which saturates quickly in times of heavy rains. There is a large area of reed bed and a wildflower meadow.

In summer 2021 there was a bore site in this field to investigate ground water and boulder clay in this green area and also at the beach access point at the railway underpass. It was hoped to drill down 25 metres. Results are not yet available to the public. Rock hard boulder clay would quickly prevent deep drilling.

The clifftop green also saturates quickly and required extra drainage measures along the paths in the past two years. It was always a soggy zone after rains and difficult terrain for walkers.

Erosion

The soft glacial cliff north of the Shanganagh River has rapidly accelerating erosion and is now shedding aged rusted metal and other material which indicates there was some ad hoc dumping in past decades.

This may also impact on the Council vehicle services area and dirt ramp from cliff top to the shore which was used for vehicles in the recent Corbawn rock armour works.

Strong storms also impact on upper shore area with a reduction in stable grassy turf along the upper shoreline perimeter.

Geogenic Reef to the north of the Deansgrange River.

This requires a full ecological survey more than once a year due the seasonal variations in eco systems. A diving survey would be useful in case anything of importance is missed. The reef is often frequented by up to a hundred birds at mid tide and was once a stopping off point for hundreds of passing geese around St Patrick's Day every year we were told by an elderly observer some years ago.

Infrastructure

We were glad to see that the Bray Shanganagh Wastewater Treatment Plant on the clifftop has been referenced along with the long Shanganagh Outfall Pipe on the cliff below and the short stormwater overflow pipe in the seabed as these will require due caution in the siting of a cable link.

Local residents, DLR and a local councillor all made reports about the missing marker pole on the shore to Irish Water in autumn 2020 which has not been replaced and may indicate present or older seabed pipes. There were concerns on the grounds of health and safety. There was to be 'investigation' but no sooner than the third quarter of 2021. No recent feedback on this.

There seems to have been little consultation with Irish Water referenced so far in the application about possible landfall cable links on the shore area immediately below the plant and close to the outfall pipe. There are also mainline sewers to the plant embedded within the clifftop zone.

Potential Explosions due to accidental mixing of electricity and sewage gas

There is concern about potential hazards when high voltage cables are run in proximity to undersea outfalls with sewage gas or clifftop cables as it can be an explosive mixture.

Please note: Space for an extra tank at the WWTP was factored into the design to accommodate the major increase in population at Cherrywood town. This was expected to be constructed after 2020.

Other Infrastructure

The immediate upper shore has a popular walkway and plans for a cycleway along the narrow path on top of the **old railway line embankment** which functioned till about 1912

Bridges

There is a fine granite stone bridge over the Shanganagh River estuary ..one of the earliest railway bridges in Europe. This may have a weight bearing limit.

A narrow wooden and metal bridge was constructed over the Deansgrange River in 1990.

Existing Paths

The narrow pedestrian paths on the old embankment which are also used now by cyclists would not be suitable for persistent heavyweight construction vehicles. While providing a raised walk-way with appealing views it also functions as a protective berm bank and storm buffer. The clifftop path is a narrowed version of the temporary haul road for the building of the Waste Water Treatment Plant.

Future Infrastructure may include a substation and other works to the north of the Deansgrange River on the upper shore according to recent Codling Windfarm maps as another company is competing for use of the same potential landfall space for cables.

Archaeological Heritage

Though mid 19th century structures predominate, there are two earlier structures...a ruined stone battery on the eroding clifftop and a Martello Tower north of the Deansgrange River which may also have been the site of an earlier dolmen or tomb which suggests a long pattern of settlement.

Geological Heritage of the Glaciated Cliffs between Killiney and Bray. These are frequently studied by secondary students, university students and other specialist geological groups.

Amenity Area and public access to paths and shoreline

This is a very popular and busy amenity area used by hundreds of people from near and far during Covid lockdown. Walkers, runners, dog walkers, cyclists, some wheelchairs, e-scooters, picnickers, pram and buggy users were all competing for space along with bathers and people undertaking water activities with canoes, paddle boards and inflatable boards. Anglers fish near the Shanganagh River Estuary. People of all ages and abilities use the area for their regular daily exercise and there are well established rights of way from access points and along paths between Shankill and Killiney. The green clifftop area provides two playing fields used by various clubs along with a community muga pitch and allotment gardens. At times there are incidents of anti-social behaviour with environmental impacts by a tiny minority.

The immediate hinterland has an enclosed meadow space.

Biodiversity Concerns

While the licence application describes the character of the shoreline and sediments and includes the geogenic reef, it does not give a full picture of the marine biota and integrated shoreline eco systems.

Fauna: Marine mammals, fish, marine birds on the geogenic reef, lagoon and clifftop birds, sandmartin colonies in the nearby Shanganagh Cliffs (referenced by Niall Hatch of Birdwatch Ireland reporting on Mooney Goes Wild on RTE One in the spring) are not referenced along with shoreline bumble bees, up to 16 possible varieties of shoreline and clifftop butterfly, bats, otter and further species. In the past decade bird observations have included visiting geese, little egret, lapwing and kingfisher.

Observations by Dublin Array include some of the algae to be found but not all, and some smaller fish species which were not observed may be present. Snorkellers have made further observations. While eutrophication brings extra growth of some green ulva digitalis this also masks other varieties at times. We were glad to see that Fucus Serratus and Laver seaweed were recorded along with worms on the reef, sandmason and sandhoppers.

The D19 Butterfly Transect which included the upper shore and clifftop has been monitored for over ten years for the National Biodiversity Data Centre.

Otter Survey 2021 (DLR)

Flora: Drift Line vegetation features Sea Holly and a number of other marine shore species including a rarer one. Together with Fringe Vegetation and some clifftop plants there is a wide range of wildflower and plants throughout the seasons of the year. This is where 'the meadow met the sea'

AIS: Giant Hogweed is now encroaching on the shoreline shingle and needs to be taken into consideration to prevent further spread if there is soil disturbance.

Shore biota are already under pressure from constant trampling especially during most restrictive pandemic times and this can be observed on the latest Google Earth maps.

Birdwatch Ireland and the Dublin Field Naturalist Club have included the beach and clifftop areas in specialist field trips and it is easily accessed by public transport.

There is a **legal imperative to Protect, Preserve and Restore** existing Biodiversity and if in doubt apply the **Precautionary Principle** to avoid long term environmental damage.

Public information Signage!

It would be very helpful to promote greater public engagement by providing site maps of cable link proposals with a link to the plans at public beach access points in Killiney, Bayview railway underpass Killiney, Shankill beach access point and Shanganagh Cliff/Rathsallagh Estates Shankill as happens in the Terrestrial Planning process.

Other Comments

Please note: the original licences for exploration of the Kish and Bray banks were granted in 2000 before the increasing evidence of Climate Change, stronger storms and increased flood risks along with coastal Erosion in this area. The construction of the Waste Water Treatment Plant (DBO) was at the early planning stage in 2007 and took nearly 7 years to complete so may not have been taken into account in earlier licences seeking landfall cable sites or taken into proper account. Urban expansion has brought increased pressures to the shoreline area along with increased appreciation of its merits.

Cable Link site at ‘Shanganagh Park’ with borehole investigations

There is very scant information on this in the application.

Cable Link Site Shanganagh area Shankill? The proposal for a site north of Bray seems to have been dropped though this was the preferred and only proposed landfall site indicated for many years of this process.

Increased overall Area of the Dublin Array Windfarm Survey applications.

It has been noted that the overall area has expanded with successive licence and lease applications in the past 20 years and is now very large and hugs the shoreline at Poolbeg, Shellybanks and Hackettsland, ‘Shanganagh’ Killiney and also ‘Shanganagh’ Shankill.

This comes at the same time as other windfarm applications impacting on the same areas and will add to the cumulative environmental pressures.

We would appreciate if you can take these observations into consideration.

[Redacted]

[Redacted] Killiney Hill Road, Killiney, County Dublin.

Sent from [Mail](#) for Windows

From [REDACTED]@yahoo.ie>
Sent: Friday 17 December 2021 16:55
To: Housing ForeShoreORE <foreshoreORE@housing.gov.ie>
Subject: RWE Renewables Public Consultation FSOO7188 Dublin Array S.I

**RWE Renewables Ireland Site Investigations for the Proposed Dublin Array Offshore Windfarm.
FS007188RWE Dublin Array S.I
(18th November 2021)
Site Investigations for the proposed Dublin Array Offshore Windfarm.**

SOME OBSERVATIONS ON BEHALF OF COASTWATCH NGO

Re Proposed Landfall Cable Link Sites.

(1) Poolbeg Shellybanks.

Coastwatch NGO have a particular concern about the Arctic Ciprina site that was near Poolbeg along with the 'Donnax' species.

Coastwatchers with an in-depth knowledge of seagrass beds in Dublin Bay have not identified the presence of *Zostera Noltii* at Shellybanks to date but conducted extra verification checks after reading the application, to identify the exact location intended with no success.

Shellybanks shoreline has a rich variety of benthic species (as indicated by the name) so a simple initial 'field' assessment of the actual shells on the shoreline would help provide further information on which species are now present. Further data on shore life is necessary.

Drift line vegetation and incipient marram dunes are identified in the application but detail on further biota is lacking. Species need to be identified. The exact location of the Drift Lines and Marram referenced would be helpful.

While intertidal shoreline investigations may take place for one or two weeks per annum for up to five years a question of seasonality is raised. Spring may reveal different results from a survey in the autumn. There could be a similar variation in regard to sub tidal benthic surveys especially if there is a water pollution incident.

Any ecologist appointed to direct machinery away from sensitive areas needs to have had previous 'on site' experience and training, with further checks by the appropriate authority.

Re Boreholes If boreholes for a potential cable corridor at this location run up to 80 metres deep there might there be a danger of activating toxic matter long settled on the seafloor? Aged material from the former dump and reclaimed land is shedding through the rock armour in some places and this needs to be assessed. Suspended sediment may deter the foraging of wading birds. Any risk of toxins should be discussed.

A repeat process of 'benthic grabs' may bring repeated damage to a site.

Amenity aspects at this site. This is alongside an increasingly popular walking route and not far from the busy Half Moon Bathing Place. Public access issues need to be taken into careful consideration.

(2) Cable Link at south Killiney Bay: Killiney, Hackettsland, Shanganagh and Shankill.

The survey area has been extended along the shoreline with this application.

The estuaries of the Shanganagh River and Deangrange which flow into the sea via lagoons and meandering intertidal channels have not been mentioned at all.

Both rivers require regular dredging to keep the river mouths free of sand and silt to avoid potential back flow in times of flooding especially at high tide and when there is a driving east wind.

The latest Flood Risk maps for this area were added to an appendix of the DLR Draft Development Plan and need to be viewed. This zone is now a high Coastal Flooding risk in addition to the pluvial and alluvial flooding which have been a feature of the rivers for over a decade (see CFRAM reports) In summer 2021 a contractor was conducting test bore holes to check the ground water and soakage levels in the adjacent field which is a flood plain. Generally they hit boulder clay as hard as bedrock in the hinterland 'field area' only a few metres down. There was a suggestion that an extra drainage pipe might be required in the area.

The Shanganagh River was a high quality salmonid river fifty years ago and still provides a channel for sea trout and sometimes eel using the river wetland corridor which continues to Loughlinstown Commons pNHA and streams further beyond again. The lagoon on the seashore has fish and the shoreline is popular with anglers.

The Deansgrange River, now in a narrow culvert, is prone to flash flooding and flows onto the shore via a deep channel that attracts wildlife.

Water quality in both rivers dipped in summer 2021 and there was a phase of probable algal bloom and high siltation in the lower tidal area so baseline assessments in Summer 2021 may have had reduced data results.

Erosion Threats.

The soft glacial cliff at the cable link site (and towards Shankill) has shown accelerated rates of erosion in the past five years.

Infrastructure

The Bray Shanganagh Waste Water Plant on the cliff top is due for expansion in this decade with the addition of an extra tank with the increased populations in the new Cherrywood Town to the west.

Serious discussion with Irish Water is urgent now. When the original Kish licence was granted over twenty years ago the modern WWTP for the area had not been designed, built or in operation.

The long seafall outpipe is referenced along with the short storm overflow pipe. Concerns have been raised in regard to the proximity of an electric cables in an area of possible sewage gas leakage due to risk of explosion.

The proposed cable link site through the eroding glacial cliffs will be in a tight space adjacent to the Shanganagh River mouth and WWTP major outfall pipe.

Historic Infrastructure.

The busy 'raised walkway' is the early railway embankment.

Bridges: The old stone railway bridge at the Shanganagh Estuary is one of the earliest in Europe. The wooden/steel bridge over the Deansgrange River (circa 1990) opened up a continuous right of way from Shankill to Killiney.

Early 19th century built structure features the crumbling clifftop 'Battery' and a still intact Martello Tower.

The site of the Tower is probably a site of early human settlement.

Future Infrastructure may include an electricity substation for Codling Windfarm on the upper shore close to the Martello Tower as they are also surveying this section of the coast.

Amenity Area

There is high use of the narrow coastal paths by people of all ages and abilities (from near and far) along an increase in bathing and water activities. DLR have plans for a coastal cycling route from Killiney to Shankill which will increase path use and bring more visitors to the shore area. For some local residents it is the main accessible daily exercise area near their home. The clifftop area has busy playing fields as well as a community muga pitch and allotment gardens.

Biodiversity.

While some of the lower shore and geogenic reef biota have been listed it is not a full assessment. There are probably gaps in the fish life data on the reef and also the variety of algae present though sometimes this can be masked by eutrophic green algae which is present in many parts of the bay due to lags in water quality. The integrated eco systems of the area demonstrate a good variety of fauna and flora including Drift Line Vegetation and Fringe Vegetation. There was not mention of the birdlife in the lagoons or on the geogenic reef or the sandmartin colonies in the soft cliff close to the site and further along the shore towards Shankill.

The precautionary principle has to be applied.

Any plans for cable links at this location need to be carefully 'ground truthed' as there are many overlapping factors to take into account in a tight space, with with both a railway line and intensive residential housing in the hinterland.

(3)Other cable link landfall sites indicated in previous licence applications by Dublin Array.

While this application references a possible second cable landfall route somewhere near 'Shanganagh Park' the exact location is not clear and there is no further detail apart from the borehole indicators on a map.

The original proposal for the cable link at Shanganagh North of Bray, Shankill seems to have been dropped in this application as the focus is now on Shanganagh Killiney further south. The name 'Shanganagh' has caused a lot of confusion for the public on these applications as it can cover a large area. It needs to be clearly defined with a user friendly map reference. (This matter was raised directly with Dublin Array in 2020 in the hope of improving the public information)

The rocky area off the coast at Shanganagh Park shoreline access point is favoured by seals and lower shore biota and should be carefully assessed in advance of incursions by windfarm surveyors at any stage.

Although the beach area north of Bray does not appear to be covered in this application please note the presence of the submerged 6000 year old forest (Praeger)

Increase in the Survey Area in this application.

The survey area is now vast and seems to have increased with licences and leases for the Kish Bank windfarm proposal since the first applications over 20 years ago. The prolonged surveys with seabed testing, gives is an added pressure to the marine environment and allows little time for 'recovery'

Seabed works are reported to cause increased in suspended sediment. If the total area requested in this application is approved extra resources will be required for the state to efficiently monitor it and ensure that the process continues to maintain the standard of agreed investigation methodologies.

There is still concern about assessing the patterns and pathways of migratory birds (especially geese and terns) fish and mammals as these can vary so much especially with impacts of Climate Change and storms.

On-going consultation with with the appropriate state authorities and agencies, Birdwatch Ireland and the Whale and Dolphin Group for the most recent data is essential and will remain a challenge throughout the five years of this licence. Porpoise and cetaceans are at high risk even with the precautions described. Methodology needs to be fully assessed and reviewed during the process with regular policing by the authorities.

These are some comments on behalf of Coastwatch NGO.

We hope you will take the observations into account.

[REDACTED] (Coastwatch Regional Co-Ordinator DLR)

[REDACTED],
Killiney Hill Road
County Dublin.

From: Coastal Concern Alliance <info@coastalconcern.ie>

Sent: Friday 17 December 2021 16:16

To: Housing Foreshore <foreshore@housing.gov.ie>

Subject: Objection to award of Foreshore Licence FS007188 RWE Dublin Array S.I.

Dear Foreshore Unit

Please accept the attached and acknowledge receipt.

Kind regards



CCA Policy Team

4 Attachments:

- CCA Submission in Response to application by RWE Renewables Ireland Ltd for a Foreshore Licence for site investigation and monitoring... (14 page)
- Foreshore licence for the assessment of the suitability of a site for the construction of an offshore electricity generating station (Kish Bank)... (10 page)
- Offshore Electricity Generating Stations-Note For Intending Developers, 01 May 2001... (58 page)
- Report of MLVC on the applications and environmental impact statement... Kish and Bray Bank wind farms, 2006... (12 page)



Submission in Response to the application by RWE Renewables Ireland Ltd.

for a

Foreshore Licence for site investigation and monitoring.

FS007188 RWE Dublin Array S.I.

Coastal Concern Alliance is an independent voluntary citizens' group, set up in 2006 to campaign for reform of Foreshore Legislation and for the introduction of Marine Spatial Planning to balance competing interests in our seas and conserve marine wildlife, habitats and coastal landscapes. We are supportive of the development of offshore renewable energy to meet climate and energy targets when developments are properly sited, to a proper scale and managed under a democratic fit-for-purpose marine planning regime. We have no affiliation with any political party or industry group.

17th December 2021

Coastal Concern Alliance (CCA) wish to object to the granting of a further investigative licence (Licence Application FS007188) for proposed development of a wind farm on the Kish and Bray Banks.

The Foreshore Act 1933

Since 2006, CCA have campaigned for reform of The Foreshore Act 1933, the legislation under which this Foreshore Licence application is being submitted. Universally accepted as outdated and not fit-for-purpose, this legislation is currently under reform and due to go to report stage in the Seanad this week. Given that the update of the legislation is imminent, the continued processing of applications for foreshore licences under the old legislation is not *in the public interest*.

History of the current proposed development.

Foreshore Licences 2000

The history of the proposed development as described in the current application states that two Foreshore Licences were awarded to Kish Consortium in August 2000. These Licences, one relating to the Kish Bank (copy attached) and a second relating to the Bray Bank, were to remain in force for a period of four years from 2nd April 2001.

At that time, the regulations governing the awarding of Foreshore Licences and Foreshore Leases were detailed in a document entitled '**Offshore Electricity Generating Stations. Notes for Intending Developers**' (Copy attached)

The document stated 'Foreshore Licences should, ordinarily, be valid for four (4) years and not normally be subject to extension.' (underline added) In cases of *force majeure*, 'the Minister may at his sole discretion and subject to any additional or differing conditions as he may think appropriate, extend the period of validity of the Licence for one or more periods, each of which shall not exceed twelve months, subject to an application being made not less than two months and not more than three months prior to the expiry of the Licence or any extension to the licence period.'

It is also of note that, under the terms of the Foreshore Act 1933 and allowing for whatever leeway this inadequate legislative framework provided, the Minister was, nonetheless, charged with making decisions 'in the public interest'.

Notes for Intending Developers gave details of the payment scheme that pertained in relation to the granting of these 2000 Foreshore Licences. A nominal rent of €5 per annum was levied, subject to a deposit of €100,000. This deposit was refundable on condition that a valid Foreshore Lease application was made within a year of the date of expiry of the Foreshore Licence. Clauses reflecting these conditions were included in each of the two Foreshore Licences awarded to Kish Consortium in 2000.

The licences stated 'On completion of a satisfactory exploration programme carried out in accordance with the terms and conditions of this Licence the Minister shall refund the sum deposited, together with any interest accrued, less any direct costs incurred in setting up and closing the account, subject to a valid application (as defined in the document "**Note for Intending Developers**") being made to the Minister, within twelve months of the expiry of this Licence, for a Foreshore Lease to allow the construction and operation of an electricity generating station within the Licence area,...' The alternative was that the Licensee proved to the Minister that the area that was the subject of the Foreshore Licence would be unsuitable for the construction and operation of an offshore electricity generating station.

Given that these two Foreshore Licences were granted in 2000 and that they expired in 2005, that no valid Foreshore Lease application was made or accepted by the Department in 2006, they do not appear to be in any way relevant to the current Foreshore Licence application.

Foreshore Lease applications 2006

The current Foreshore Licence application states 'In January 2006, Kish Offshore Wind Limited and Bray Offshore Wind Limited submitted two Foreshore Lease applications (FS006462 and FS00643) to the Department of Communications, Marine and Natural Resources, pursuant to Section 2 of the Foreshore Act 1933, as amended, for proposed wind farm development in the vicinity of the Kish and Bray Banks.

We understand that some information was submitted to the Department of Communications, Marine and Natural Resources in 2006 although this information is not in the public domain. However, in response to the documentation that was submitted, the Marine Licence Vetting Committee (MLVC), were unable to make a determination on the lease applications.

The MLVC Report (Copy attached) stated 'On the basis of its considerations the MLVC is of the opinion that the EIS does not meet statutory requirements and is deficient in its content, presentation and consideration of some key aspects. The MLVC is, therefore, at this time, unable, to make a recommendation to the Minister on this project proposal.'

The MLVC Report gives additional details to support this decision. Of note is their comment under the heading **Alternatives**, which states 'No information on alternative sites was provided and the justification for the selected site was poorly described. In addition, no justification for the selected turbine layout was provided.' In their conclusion, the MLVC Report stated that they were not satisfied that the EIS complied with relevant EU and National EIA legislative requirements.

Clearly information relating to these 2006 Foreshore Lease applications is included in the current application documentation to suggest that it somehow validates the current Foreshore Licence application. Far from doing that, it confirms that in 2006, the then MLVC considered that the

environmental information provided did not meet the requirements of the Environmental Impact Assessment Directive, because, *inter alia*, it failed to consider alternative sites.

In summary, these 2006 Foreshore Lease applications and supporting documentation were deemed to not meet statutory requirements, were not published on the Department's web site and were never subject to statutory public consultation. They have no validity as information on which it is sought to ground the current Foreshore Licence application.

Other investigation related to Dublin Array proposed development.

2009. Although not mentioned in the current Licence application, lease application documents are available on the Department's web site stamped Received 2nd June 2009, but dated (not signed) 21 Dec 2005. Among other points of note in these application documents, is the fact that required Planning Permission for shore-based works has not been obtained, a clear indication of project splitting.

In 2013, Dublin Array carried out a major public consultation. Again, this is not referenced in the current licence application.

The letter, dated 18th April 2013, sent to CCA announcing the consultation stated 'Written submissions in relation to the effects on the environment of the proposed development may be made to The Department of the Environment, Community and Local Government, Marine Planning and Foreshore, Newtown Road, Wexford, Co Wexford quoting reference number MS53/55/L1. Numerous citizens took the time and trouble to respond to this including Coastal Concern Alliance, who commissioned a professional assessment of visual impacts to help to inform members. All submissions were uploaded and made available on the Department's web site. (Copy available) However, when CCA wrote to the Department in 2018 seeking clarification on the status of these submissions and were told that they had no status, because they were made in response to the developer's public consultation. The Department, funded by taxpayers, were clearly involved in this consultation, accepted and collated submissions on behalf of the developer and uploaded these to their web site. The collusion evident here makes it almost for citizens to avail of the Fair, Equitable and Timely access to information and access to justice that is required under the Aarhus Convention.

This is illustrative of the impossible burden of responsibility placed on citizens, who should be able to rely on the expertise of government to advocate on behalf of citizens and in support of a democratic foreshore planning process. However, it seems to be the case that government allies itself with the interests of private multi-national energy companies and facilitates their efforts to take advantage of lax regulation and outdated legislation to exploit our near-shore coastal waters for massive industrial development, for which they would not be granted consent in their own countries.

CCA contend that this is in breach of the Foreshore Act 1933, which requires the Minister to make decisions '*in the public interest*' and disrespectful of the rights of citizens.

Foreshore Licence granted, January 2021

In detailing the history, the current Foreshore Licence application then references the Foreshore Licence granted to Innogy Renewables Ireland Ltd in 2021. This Foreshore Licence is currently the subject of a challenge by way of Judicial Review.

Additional site information.

Together with the information provided above which demonstrates clearly that historic applications relating to the Kish and Bray Banks have no valid connection with the current Foreshore Licence application, it should be noted that the Foreshore areas referenced in documentation at various times were as follows:

2000:	4000 hectares
2009:	4000 hectares
2013:	5400 hectares
2019:	25,440 hectares
2021:	112,986.34 hectares

Clearly, the area of the foreshore included in the licences awarded in 2000 bears no relationship to the area of the foreshore included in the current Foreshore Licence application.

Remedial Obligation

It is evident that previous consents granted for any application associated with the proposed development had not been carried out in compliance with the requirements of European Environmental law and, in particular, the requirements of the Bird's Directive, the Habitats Directive and the EIA Directive. In circumstances where those consents were granted in non-compliance with these directives there is an express remedial obligation on the Minister in his consideration of the within application to ensure that the appropriate environmental assessments are carried out in connection with the previous consent in addition to the proposed application for development.

Given the chaotic processes that characterise the history of this proposed development, the consents sought, the applications rejected due to failures to comply with EIA Directive, Aarhus Convention etc. it is imperative that all of these historical issues are addressed and the required remedial obligation applied.

Consideration of alternatives, 2021.

The current Foreshore Licence application fails to consider alternatives.

While twenty years ago it was not possible to site wind turbines in deeper waters, to install the giant turbines that are in production now or to deploy floating wind, these options are all now available and being used around the world. In Ireland, applications for major floating wind developments are in the pipeline with significant advances in the most environmentally friendly platforms publicised recently.

Alongside this there has been an explosion in our knowledge and understanding of the importance of the marine environment and its value to life on planet Earth. Biodiversity and species loss, together with climate concerns are at the forefront of public awareness. While the Irish government appears to be wedded to the idea of massive near-shore wind development, commitment to protection of the marine environment has been utterly neglected, with just 2% of our seas being afforded even the most minimal protection. At the World Conservation Congress (September 2021), the International Union for the Conservation of Nature approved a motion to protect 30% of the planet by 2030. The resolution calls on IUCN members, including Ireland, to support:

recognition of “the evolving science, the majority of which supports protecting, conserving and restoring at least half or more of the planet is likely necessary to reverse biodiversity loss, address climate change and as a foundation for sustainably managing the whole planet.”

“at a minimum, a target of effectively and equitably protecting and conserving at least 30% of terrestrial areas and of inland waters ... and of coastal and marine areas, respectively, with a focus on sites of particular importance for biodiversity, in well-connected systems of protected areas and other effective area-based conservation measures (OECMs) by 2030 in the post-2020 global biodiversity framework.” ...

To honour this commitment, the Irish government must acknowledge the direct conflict between extensive uncontrolled near shore energy development on vulnerable habitat, as is proposed in the current application, and their responsibility to Irish citizens and the international community to urgently put in place measures to ensure the conservation and restoration of the planet’s biodiversity ‘to address climate change and as a foundation for sustainably managing the whole planet’. Consideration of alternatives is key to getting the balance right.

Site selection

The siting of offshore renewable energy installations has been a key concern of CCA since our formation in 2006. We have repeatedly expressed serious reservations about the manner in which Government has continued to process licence and lease applications in Ireland’s near-shore area on sites selected by developers on ‘a first come first served’ basis. The current Foreshore Licence application is a case in point. The government’s acceptance of this application for extensive investigations on a sensitive site selected by the developer without any State resource and constraints analysis is totally out of line with current good international practice.

The vast majority of other EU countries exercise strict control over the locations of offshore wind farms. Governments select potential zones for offshore wind adopting an ecosystem approach and consulting widely with stakeholders. They then open these zones to developers who must submit detailed EIAs for their proposed developments. The UK Government, for example, has controlled offshore wind development via various Leasing Rounds with government carefully selecting sites before offering them for potential development.

National Marine Planning Framework 2021 & site selection

Ireland's National Marine Planning Framework (NMPF) was adopted in 2021. The Strategic Environmental Assessment Environmental Report, (SEA ER) carried out to assess the environmental impacts of the draft Plan highlighted the need for a 'robust site selection process to inform the best technical and environmental locations for any given prioritised activity'. This applied to all potential uses of the marine environment. However, more specific points were made in the discussion of Offshore Renewable Energy. The SEA ER stated 'There is potential for negative impacts for all environmental receptors where ORE infrastructure has not had the benefit of a robust site selection process which explicitly includes consideration of benthic habitats, marine mammals, birds and visual receptors as a minimum'.

A report from the International Union for the Conservation of Nature (2021), [Mitigating Biodiversity Impacts associated with Wind and Solar energy developments](#), confirms that site selection at the early planning stage is the most important consideration in optimising avoidance of biodiversity impacts.

It is essential to understand that this requirement does NOT arise as a result of the drafting of Ireland's NMPF. It is a requirement laid down in the Environmental Impact Assessment Directive (Directive 85/337/EEC, as amended), which was transposed into Irish law by the European Communities (Environmental Impact Assessment Regulations), 1989 (S.I. No. 349 of 1989), well in advance of the consideration of any applications for OWF development in Ireland's coastal waters. It is designed to ensure that projects likely to have significant effects on the environment are subject to a comprehensive assessment of environmental effect, prior to development consent being given.

In the current Foreshore Licence application, RWE are applying for authorisation to undertake a geotechnical and geophysical site investigation for the proposed Dublin Array offshore wind farm development in spite of the fact that it is clear that no robust site selection process which explicitly includes consideration of benthic habitats, marine mammals, birds and visual receptors has been undertaken.

While it was a requirement even when initial applications were made for Foreshore Licences for site investigation on the Kish and Bray Banks in 1999, lax application of the law appears to have facilitated the granting of early consents with no environmental constraints. However, with regard to this current Foreshore Licence application, it must be concluded from even a cursory assessment of the suitability of this site, the site is completely unsuitable for the type of development envisaged.

Appropriate Assessment of potential impacts on protected habitats and species.

In the introduction to the Applicant's Natura Impact Statement the Appropriate Assessment process is described at 1.3.3 stating:

'AA is required where the AA screening stage determines that the proposed works are likely to have a significant effect on a Natura 2000 site with respect to its Conservation Objectives. This second stage considers whether the proposed works (either alone or in-combination with other projects or plans), will result in an Adverse Effect on the Integrity (AEoI) of a European site. Where AEoI are identified or where an adverse effect is uncertain, mitigation will be required. Mitigation measures will avoid impacts and effects at source insofar as possible and will be clearly stated together with an explanation as to how the measures will avoid or reduce the adverse effects. The report produced for the AA of projects is known as a Natura Impact Statement (NIS) and documents the findings of this stage of the process.'

CCA contend that with regard to Natura 2000 habitats and species that the Precautionary Principle must apply and that this precludes the application of mitigation measures. The acknowledgement that mitigation measures will be required across a range of species and habitats contravenes the Habitats Directive in failing to provide complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works.

Example

There are numerous examples in the Applicant's Natura Impact Statement and EIA Screening and Environmental Report where it is acknowledged that mitigation will be required with regard to impacts on Natura 2000 habitats and species (e.g. birds, cetaceans), CCA cite the proposed works described in the EIA Screening and Environmental Report 2.3.3. with regard to epibenthic trawls and grab sampling, the failure to specify the locations for these proposed works and the failure to acknowledge that these proposed works could impact Natura 2000 sites.

EIA Screening and Environmental Report

2.3.3 Interpreted geophysical data will be used to provide ground types and seabed features across the array area and Offshore ECC together with any third party data available across the wider Foreshore Licence application area. This will be used to refine the selection of benthic ecology survey locations to ground truth the data and to provide material for biological sampling.

Up to three annual subtidal benthic ecology surveys, comprising drop down video, grab sampling and epibenthic trawls (locations yet to be defined) (underline added). Samples will be taken using a Hamon or Van Veen grab (0.1 – 0.2 m²) with a stainless steel bucket at up to 90 locations. Sample depth may be up to 20 cm depending on seabed type. The grab will be deployed and retrieved by winch. Drop down video (DDV) will be deployed at each sampling location prior to grabs being taken. Epibenthic sampling (90 no.) using a standard 2 m Cefas beam trawl fitted with a 5 mm cod designed to collect information on epibenthic invertebrate species, as well as small demersal and juvenile fish. Trawls will be standardised by length (500 m) or duration (10 minutes);'

The array area on which these grab samples and epibenthic trawls are proposed is on the Kish and Bray Banks. These banks are Annex 1 Habitat type 1110 '*sandbanks slightly covered by seawater all the time*'.

There are two proposed Export Cable Corridors (ECC) covering large areas within the Foreshore Licence Application Area, that encompasses SACs and SPAs on which grab sampling and epibenthic benthic trawls are also proposed.

This Kish Bank is known to be [an ecologically rich habitat](#), with calculated diversity, richness and evenness that is broadly similar to those sandbanks designated as habitats of community importance within the UK jurisdiction. Unsurprisingly, the Kish and Bray Banks were selected for designation as a Special Areas of Conservation (SAC) by National Parks and Wildlife Service in 2012. In addition, a 2012 document seeking Ministerial approval for the designation of marine sites as SACs stated 'It is anticipated that the Kish Bank will be designated as a Special Protection Area for birds in the future.' Indeed, an earlier environmental assessment carried out on behalf of Dublin Array stated 'The Bank itself has sufficient conservation value to qualify for SPA status, solely on the grounds of the roseate tern numbers that use it.'

Since 2007, evidence from EU Conservation Assessment reports confirm that the construction of wind farms on sandbanks will degrade the habitat. This is re-iterated in a 2020 publication from National Parks and Wildlife Service '[The Monitoring of six EU Habitats Directive Annex 1 Marine Habitats](#)'. Commenting on *sandbanks slightly covered by seawater all the time* this report states '*... potential threats to the habitat are considered to include the potential impacts of wind energy infrastructure in the vicinity of the habitat.*'

It is obvious from this information, all taken from official sources, that

- (a) Kish and Bray banks are Annexe 1 type sandbank habitat and should be protected and not knowingly degraded due to extensive Offshore Renewable Energy (ORE) development.
- (b) knowing degradation of such habitats is in contravention of Ireland's Biodiversity Action Plan 2017-2021 that aims to 'protect and restore' biodiversity and habitats
- (c) a site that was selected by National Parks and Wildlife for designation as a SAC and that, furthermore, is earmarked as a site that will be designated as a Special Protection Area for Birds, is a totally inappropriate site on which to construct a windfarm.
- (d) the carrying out of grab samples and epibenthic trawls in unspecified locations across a Foreshore Licence Application area of almost 113,000 hectares that encompasses numerous Natura 2000 sites, all listed in the Foreshore Licence Application documents, is not consistent with providing complete, precise and definitive findings and conclusions capable of removing all reasonable doubt as to the effects of the proposed works and is, therefore in breach of art 6(3) of the Habitats Directive.

Current RWE Foreshore Licence Application FS007188

Cumulative Impacts - adjoining, neighbouring and related developments

The current RWE Foreshore Licence Application gives information about the background to the project and details of the site investigation and monitoring activities for which the Licence is required. However, all adjoining, neighbouring and related developments have not been considered.

CCA object to the granting of another Foreshore Licence to this consortium given that, as is stated in the current application, a Foreshore Licence was granted to Innogy Renewables Ireland Ltd. (now RWE) in January 2021 with respect to this proposed development on the Kish and Bray Banks and RWE, pursuant to the awarding of that licence, completed a successful geophysical, geotechnical and benthic survey campaign between February and May 2021. These are the same types of investigations for which a second Foreshore Licence is now sought.

While the current Environmental Impact Assessment Screening (p31.10) considers the potential for cumulative impacts with some other existing or planned activities in the locality, it fails to consider the cumulative impacts of repeated surveys relating to a single proposed development. In particular in this instance, the most recent survey was carried out this year, yet no consideration has been given to its impacts when combined with the further investigative works for which another Foreshore Licence is now sought.

The current Licence Application also states that as far back as 2000, Licences were awarded that gave consent for drilling and sampling of seabed sediments, geophysical measurements and deployment of wave, tide current and silt load measurement equipment, highlighting the fact that impacts of extensive investigative procedures relating to this proposed development have been

accumulating for over two decades without any or any proper regard to the cumulative impacts of the proposed development with other developments and the remedial obligation on the developer and the decision maker to redress any deficiencies, omissions and lacuna in respect of the environmental assessment undertaken for previous consent.

In addition, on 28 January 2021 a Foreshore Licence was awarded to Codling Wind Park (CWP). The area covered by the CWP Foreshore Licence overlaps significantly with the area included in the Licence granted to Innogy Renewables in 2021, and with the site in question in the current licence application, further exacerbating the potential for cumulative adverse environmental impacts.

At 2.6. in the Foreshore Licence Application, distance from nearest other developments, including any offshore renewable energy developments on the foreshore, are recorded. This section includes reference to proposed offshore wind developments at Codling Wind Park and at Braymore Point. However, other offshore renewable energy licence application areas are located close to the proposed foreshore licence boundary, for example the North Irish Sea Array application area, that is closer to the current Foreshore Licence application area than Braymore Point, but it is not referenced or considered in the assessment of cumulative impacts in the current environmental assessment.

Cumulative impact - Cetaceans

With regard to the manner in which the impact on cetaceans is considered CCA do not deem the information to be the *'best available scientific evidence'*

According to the Natura 2000 statement, "the Conservation Objectives to maintain the favourable conservation condition of Harbour Porpoise (*Phocoena phocoena*) [1351] within the Rockabill to Dalkey Island SAC, are defined by the following list of attributes and targets:

- Species range within the site should not be restricted by artificial barriers to site use; and
- Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site."

Both as a result of noise disturbance and physical destruction of reefs, there is admittedly by phase 1 assessment in the Natura 2000 Statement presented, a "potential for adverse effects" on the qualifying interests (QIs) of the SAC.

As outlined in the Natura 2000 statement presented,

"With regards the harbour porpoise feature and the temporary overlap with the calving period of harbour porpoise (May to August) within Rockabill to Dalkey SAC, the noise associated with the proposed works described in Section 6.2 and 6.3 of Annex E: Report to Inform AA Screening have the potential for localised disturbance and have potential to disturb and/or displace fish prey items of all cetacean and pinniped species resulting in localised indirect effects"

Section 4.2.6 (p. 60) of the Natura 2000 statement states that “The geotechnical works fall outside the range of hearing thresholds for harbour porpoise”. Based on other surveys of a similar nature (e.g. FS007339 on Arklow Bank), this statement appears to be assuming a SPL (non-weighted, peak frequency) approach rather than a SEL (weighted frequency approach), which is the current gold standard for appropriate assessment on noise on marine mammals and is, therefore, the best available scientific evidence.

Provided in the same paragraph (Section 4.2.6 (p. 60)) of the Natura 2000 statement states that “given that any noise impacts on cetaceans and their prey would be short term, temporary and intermittent.... potential for disturbance to the species will be minimised and no impacts on the Conservation Objectives of the SAC are predicted.” We do not accept this statement and would present that the noise disturbance and inhibition of QI species and their food source represents a “restriction by artificial barrier” and is contraindicated by the conservation objectives of the SAC.

No quantification of the Zone of Inhibition (Zoi) is presented in the Natura 2000 statement, which is contrary to good practice for Appropriate Assessment and without which no appropriate assessment on the impact of the Qis of the SAC can be provided.

With regard to mitigation measures in place to inhibit PTS in marine mammals, no mention of the use of passive acoustic monitoring (PAM) has been mentioned, which would be required for the ‘qualified observer’ to ensure that no marine mammals were present within the zone of inhibition prior to initiating noise creating works. An observer, no matter how qualified will likely miss sensitive marine mammals in the vicinity without the use of this apparatus and as such a likely significant risk remains in place.

Based on these facts it is obvious that, in relation to the current Foreshore Licence application, potential cumulative environmental impacts have not been adequately described or assessed.

The Offshore Renewable Energy Development Plan - Strategic Environmental Assessment.

In the EIA Screening and Environmental Report presented in support of this application at 4.1.2 it states ‘Consideration has also been given to the findings and objectives within the National Marine Planning Framework (DHLGH, 2021) and **the Strategic Environmental Assessment for the Offshore Renewables Energy Development Plan (DHLGH, 2021).**’

The Offshore Renewable Energy Development Plan, drafted in 2010 was adopted in 2014 having been seriously criticised as a result of the numerous data gaps and the lax methodology employed in drafting the plan. All official documents stated that the OREDP would be subject to an interim review of the Plan and associated SEA in 2017 with a full review of both to be carried out in 2020.

The **Offshore Renewable Energy Development Plan (OREDPP) – Interim Review** (published May 2018) states (Page 3) This Review Report focuses exclusively on the OREDP and does not incorporate a review of the associated SEA. It is important to note that this review does not make any changes to

the OREDP; rather the review aims to chart progress on the Plan, identify challenges that have emerged and identify areas that need to be prioritised or require further attention. **A full review of the Plan and associated SEA will take place in 2020.**

Given the major developments in technology and environmental assessment since the OREDP and its associated SEA were published and indeed the serious questions surrounding underlying data and methodology, CCA have been keenly awaiting the required review of the Plan and associated SEA due in 2020. Over the past two years, CCA have written to the Minister seeking details of progress on this. Our most recent communication was sent in the past few weeks. In spite of this, no information has been provided to CCA on the required full review of the Plan and associated SEA.

We note with deep concern the reference in the Dublin Array application quoted above (4.1.2) to the SEA of the OREDP (DHLG 2021). This reference to a vital Strategic Environmental Assessment which has not been published or subject to public consultation highlights the unacceptable lack of transparency and absence of democracy surrounding the development of ORE in Irish waters. Clearly long awaited and crucial environmental information which is not in the public domain has been made available to RWE (or its agents) to promote this vast industrial development on vulnerable near shore habitat.

It is clearly impossible for the public or a citizens' group like CCA to make comment on a crucial Foreshore Licence application, when information presented in support of the application is not in the public domain and indeed appears to have been withheld from concerned stakeholders/the public as evidenced by the failure to provide it to CCA.

Relevant Projects.

In May 2021, the Minister announced the designation of Relevant Project status that was conferred on certain offshore renewable energy project applications. This designation, with enormous consequences for damage to the environment, was cooked up behind closed doors. There was NO public consultation, no strategic environmental assessment, no advance public notification etc.

[The Library and Research document](#) written to explain the Maritime Area Planning Bill specifically states

'In January 2020, the Departments of Housing, Planning and Local Government and Communications, Climate Action and the Environment developed and published a transition protocol and invited applications (from these 'Legacy or Relevant Projects').'

CCA contend that the manner in which this protocol was drafted and the awarding of priority status to proposed massive offshore wind developments is in breach of the Aarhus Convention and the EIA Directive, by failing to provide the public with any opportunity to consider the implication of the designation of these 'Relevant Projects', especially at a time when, due to Covid restrictions, the focus of the public was elsewhere.

This is yet another example of the State not acting 'in the public interest' as they are required to do.

Conclusion

CCA believe that, for the reasons presented in this submission, no further foreshore licence should be awarded to RWE renewables on the site proposed in this current Foreshore Licence application and ask the Minister to reject this application, in the public interest.

ENDS.