



**Submission in response to  
Environmental Impact Statement  
for Dublin Array  
An Offshore Wind Farm on the Kish & Bray Banks**

**Reference number MS53/55/L1**

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## Summary

This response sets out brief comments on the Environmental Impact Statement presented as part of the application for a Foreshore Lease for the Dublin Array proposed development.

It includes details of the inadequate regulation, the lack of strategic planning and the democratic deficit surrounding this application.

It expresses deep concern over the identified significant harmful effects, particularly in relation to designated landscapes of national importance valued for their outstanding natural beauty.

Evidence is also provided which questions the adequacy of the information presented in the EIS, particularly with regard to landscape, seascape and visual impact.

**Coastal Concern Alliance** objects to the awarding of a Foreshore Lease for the Dublin Array for the following reasons:-

1. The prematurity of assessing this application when:-
  - The current consent process, governed by the undemocratic and outdated Foreshore Act 1933, is under reform.
  - Marine Spatial Planning to balance competing interests in our seas and provide context for the decision making process has not been introduced.
  - The National Landscape Strategy, which encompasses seascape, is in preparation.
2. The significance of the harmful effects identified in the EIS on important national landscapes/ seascapes and “*views and prospects*” listed for protection in County Development Plans.
3. The unknown and potentially harmful impacts on protected Habitats (shallow sandbanks) & Species (marine mammals).
4. Non-compliance with EU environmental legislation (EIA & SEA Directives)

## Background to CCA position

Coastal Concern Alliance (CCA) is an independent citizens' group established in 2006 to campaign for reform of the outdated Foreshore Act 1933, and the introduction of coastal and marine spatial planning to balance competing interests in our seas. We have no industry or political affiliations.

CCA is deeply concerned at the manner in which coastal zone policy has evolved in Ireland during the Celtic Tiger era, shaped largely by industry interests rather than an overall vision for our seas and coastal areas. Large scale offshore wind farm development has been permitted in Ireland's east coast near-shore zone under outdated and undemocratic legislation, in a manner which does not comply with EU Environmental Directives.

No coastal or marine spatial planning has been introduced to balance competing interests and large areas of ecologically rich habitat have not been surveyed and designated for protection as is required by the EU Habitats and Birds Directives.

As in many other areas of Irish governance, we are now at a turning point in our efforts to protect the public interest in management of a key national resource, the marine and coastal environment. The current administration must not choose to accept and build on the inadequate regulation and speculation of the past. Instead, in the spirit of the Programme for Government, it must openly acknowledge past mistakes and work to ensure that the future of our coastal area is based on open and democratic discussion of what is best for Ireland, its people and its environment into the future.

At the outset CCA must express concern at the apparent direction of public policy with regard to our seas. There appears to be an over-riding emphasis on development and growth rather than on the need to conserve and protect Ireland's coastal environment, one of our most valued and vulnerable resources. "First do no harm" should be the guideline. The Precautionary Principle is the cornerstone of EU environmental law and of Directive 85/337/EEC as amended, the Environmental Impact Assessment Directive.

## Irish Offshore Wind Development Policy

In considering the application for Dublin Array it is important to understand how offshore wind development has evolved in Ireland in a planning vacuum, under a consent system, officially acknowledged by The Department of the Marine (dORED, 2010) to be "*inadequate*" and "*in need of significant reform*".

Development at sea is controlled by the undemocratic **Foreshore Act 1933**, which gives sole authority to one Minister to issue Foreshore Licences (for initial investigation) and Foreshore Leases (for construction) in Irish waters. There is no public right of appeal against the Minister's decision to an independent appeals board, such as An Bord Pleanála.

Local authorities have no statutory involvement in the awarding of foreshore licences or leases in waters adjoining their coastline.

The democratic deficit inherent in the management of our coastal waters under the Foreshore Act 1933 has long been recognised and reform has been talked of for many years.

During the Celtic Tiger era, this democratic deficit enabled developers to obtain rights to large sections of coastal waters close to the East coast below the radar of public attention.

Between 2000 and 2008, developers were allowed to pick out sites off the East Coast and in Galway Bay and apply to the Minister for the Marine for a Foreshore Licence (for initial investigation) or a Foreshore Lease (for construction of the development) in near-shore coastal waters.

## History of Speculation and Inadequate Regulation

The manner in which extensive sites close to the Irish coast were allocated to developers in a planning vacuum on “a first come first served” basis was out of line with good international practice and in contravention of all principles of proper planning and sustainable development. There was:

- No competitive public tender for use of a valuable national resource
- No transparent pre-screening of applicants on basis of track record, financial standing, etc.
- No pre-selection of potential sites by government
- No restriction on size of development or proximity to shore
- No statutory involvement of local authorities
- No Maritime Spatial Plan
- No National Plan for offshore renewable energy development
- No Strategic Environmental Assessment (contrary to EU SEA Directive)
- No public right of appeal against Minister’s decision to an independent appeals board such as An Bord Pleanála
- No independent, professional assessment of cumulative landscape impact of developments on adjoining coastline and coastal “views & prospects” designated for protection in county development plans.
- No National cost-benefit analysis to ensure that proposed developments were in the public interest

The document, *Offshore Electricity Generating Stations: Note for Intending Developers* ([www.coastalconcern.ie](http://www.coastalconcern.ie)) sets out government guidelines with regard to Foreshore Licences and Leases. It states “*Foreshore Leases may not be assigned until construction has been completed and generating has taken place successfully for two years*”. Contrary to these explicit guidelines developers were permitted to sell on foreshore leases (essentially planning permission) before construction at a price based on the size of development permitted, netting significant profit.

A “free for all” ensued with developers laying claim to sites, mostly on shallow near shore sandbanks, (Arklow, Codling, Kish & Bray Banks) along the East coast. Such sandbanks are essential to biodiversity protection. In recognition of their importance and vulnerability, they are listed as a protected site under EU Habitats Directive. (Annex 1).

### Foreshore Leases

By end 2005, a massive **1620MW** (420 turbines) had been fully permitted off Wicklow as a result of the awarding to developers of foreshore leases for construction of 520MW Arklow Bank Wind Park (awarded on sole authority of Minister Frank Fahey in 2002) and Codling Wind Park (Minister Noel Dempsey - 2005). This was more than double the amount of offshore wind power (**700MW**) then installed worldwide, raising serious concerns about the rigour of the Irish permitting process. The leases were awarded for 99 years, the maximum possible under the foreshore legislation. These valuable leases were subsequently sold on by the original Irish promoters.

### Foreshore Licences

By end 2009 a further **1694MW** (410 turbines) had been well advanced in the sensitive near shore zone under outdated legislation (Foreshore Act 1933) via the awarding of foreshore licences for initial investigation to:-

364MW	Kish Bank/Dublin Array: (145 turbines) Dublin Bay/Wicklow (2001)
320MW	Oriel Wind Farm (55 turbines) Dundalk Bay (2005).
100MW	Sceirde Wind Farm (20 turbines) Galway Bay
1000MW	Codling Wind Park 2 (200 turbines) off Bray Head (2008).

## Draft Offshore Renewable Energy Development Plan 2010 – Retrospective Planning

All these near shore projects were developer-led, permitted and advanced in an ad hoc manner, with no Plan and no Strategic Environmental Assessment (SEA) under a consenting process widely acknowledged to be unfit for purpose.

As there was no Plan, the Government avoided its obligation under Directive 2001/42/EC (The SEA Directive), which requires that member states carry out an SEA to assess “*the cumulative impact of plans and programmes likely to have an effect on the environment*”.

In November 2010, after a decade of unfettered speculative activity in Irish waters, the Government finally moved to comply with EU environmental legislation by producing a draft Offshore Renewable Energy Development Plan (OREDPA) and commissioning a Strategic Environmental Assessment to assess its cumulative impacts.

In other EU countries and in Northern Ireland, SEA has been used to inform leasing decisions. In Ireland, it could not fulfil this function because pivotal leasing & licensing decisions relating to large scale offshore wind farm development had already been made, effectively shaping the future of the near-shore East coast off Louth, Dublin & Wicklow.

The draft OREDPA (2010), produced by the Department of the Marine, represents an alarming example of retrospective planning. It simply served to rubber stamp the extensive development permitted and progressed with no Plan and no SEA in the previous ten years.

The danger inherent in the draft Offshore Renewable Energy Development Plan is evident in the Dublin Array Foreshore Lease application.

The EIS (p.17) states:-

*“It is noted that the three projects, including Dublin Array, which have received grid connection offers under the Gate 3 process are considered as “already existing renewable infrastructure” for the purpose of the OREDPA SEA. ... On the basis of the above it is clear that the development of the proposed Dublin Array offshore wind farm development on the Kish and Bray banks forms an integral part of Ireland’s policy towards achieving our commitments presented in the National Renewable Energy Action Plan and in ensuring we realise our potential for offshore development foreseen in the Offshore Renewable Energy Development Plan.”*

### **“Already existing renewable infrastructure”?**

The Draft Offshore Renewable Energy Development and its accompanying SEA were supposed to help provide a framework for the approval of activities and developments in the marine environment (2010). This objective was totally undermined by the classification of projects permitted (1640MW) or in the pipeline (3314 MW) as “*existing renewable energy infrastructure*”. This inexplicable classification totally undermined the integrity of the consultation process. There is little point in carrying out an SEA of a Plan if the majority of the planned development is already deemed to exist.

The Draft OREDP states:-

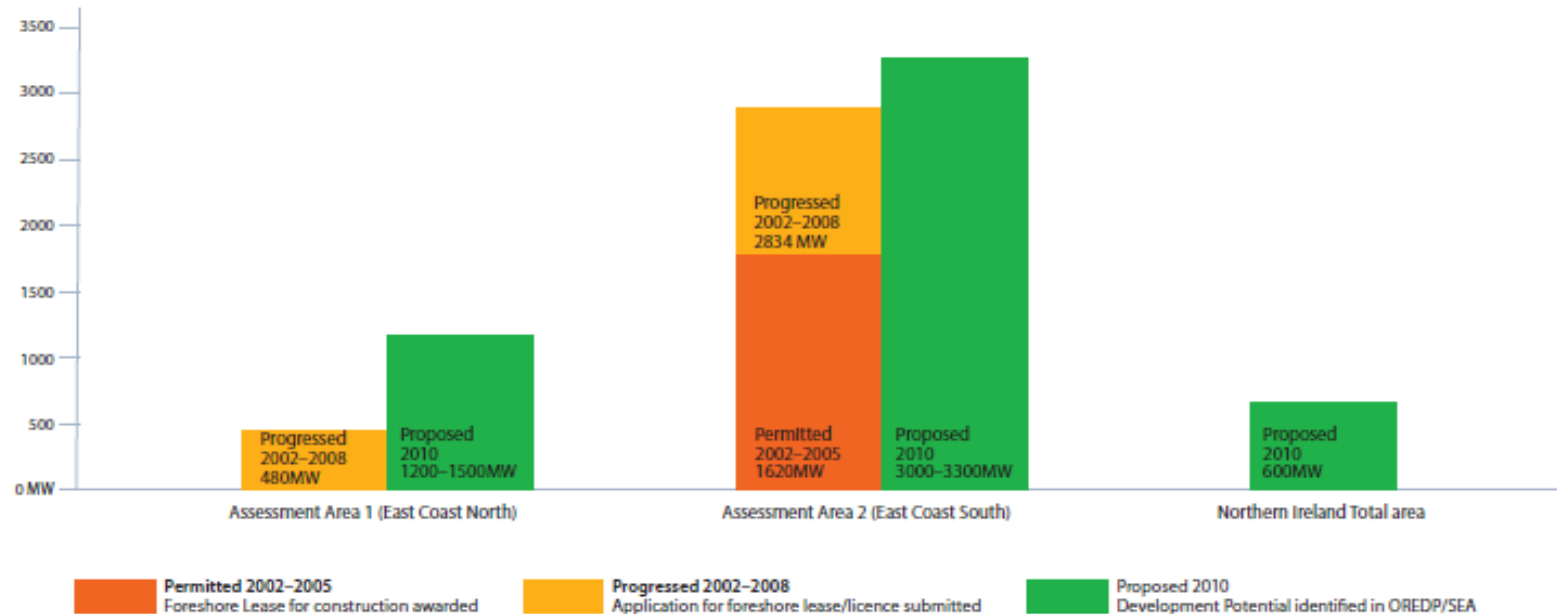
*“There are currently two proposed offshore wind developments that have already secured a Foreshore Lease and separate to this there are three offshore wind projects that are due to receive a grid connection offer under the Gate 3 process. Both a grid connection and a Foreshore Lease are necessary for projects to be developed. These projects have been shown in the strategic environmental assessment as **“already existing renewable infrastructure”**. It is recalled that thus far only 25MW has actually been constructed.”* (Draft OREDP, 2010, Section 6.2).

The inexplicable classification as “*already existing renewable infrastructure*” of projects permitted (1640MW) and progressed under a consenting process universally acknowledged to be “*unfit for purpose*” totally undermines the democratic process.

The objectives of the SEA are “*to provide a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.*”(Directive 2001/42/EC, Article 1). Clearly the SEA of the draft OREDP fails in this central objective.

**The draft Offshore Renewable Energy Development Plan is clearly being used to give official validation to a project which is currently only at the public consultation stage.**

## Draft Offshore Renewable Energy Development Plan 2010 – Retrospective Planning?



### Note

In 2010 the Irish Government produced a draft **Offshore Renewable Energy Development Plan (ORED)** and commissioned a Strategic Environmental Assessment (SEA) to assess environmental impacts. The East coast was divided into Assessment Areas 1 and 2.

The potential offshore wind farm development identified as environmentally acceptable off Ireland's East coast, almost exactly corresponds to the developed projects permitted and progressed off the East coast with no Plan and no SEA, on the sole authority of the Minister for the Marine, under outdated legislation, in the period 2002 to 2008.

Strategic Environmental Assessment is supposed to guide plans to ensure that development is sustainable. In Ireland's case, SEA could not fulfil that function. In fact 36% of the draft ORED's High Development Scenario for Offshore Wind (4500MW) for 2030 was already fully permitted (1620MW) in Assessment Area 2 by 2005.

It is worth noting that in Northern Ireland where no development had been permitted, the ORED/SEA carried out in 2009 identified that just 600MW could be developed without likely significant effect on the environment.

**Projects permitted** East Coast South: Arklow Wind Park (520MW); Codling Wind Park 1 (1100MW)

**Projects progressed** East Coast South: Codling Wind Park 2 (1000MW); Dublin Array South (214MW) East Coast North: Oriel Wind Park (330MW), Dublin Array North (150MW)





## Marine Spatial Planning

It is clear that a plan for development of offshore renewable energy, or indeed any other form of development in our seas, needs to be set in the context of a democratically agreed Marine Spatial Plan to strategically plan the future of our coastal zone and to balance competing interests in our seas. Otherwise development of one sector will have been given priority.

The need for such an overarching Marine Spatial Plan was acknowledged by the Department of the Marine in the draft OREDP 2010 which states:-

*"Work is well underway in the Department of the Environment, Heritage & Local Government on preparing a general scheme of the necessary legislation and scoping out requirements for the development of a Marine Spatial Plan to strategically plan development on the State foreshore and to manage competing and often conflicting sectoral demands."*

The EU has recently (13/03/13) launched a proposal to improve the planning of activities at sea and the management of coastal areas. The proposal which takes the form of a draft directive – aims to establish a common European framework for maritime spatial planning and integrated coastal zone management in member states, with a view to ensuring that the growth of maritime and coastal activities and the use of resources at sea and on coasts remains sustainable.

Launching the initiative, European Commissioner for the Environment Janez Potočnik stated:-  
*"This initiative will contribute to a healthy environment and better living conditions for the 200 million EU citizens who live in coastal regions. It should also help preserve unique and diverse coastlines and ecosystems that offer invaluable habitats for plants and animals."*

The press release from the launch continues:-

*"Human and economic activities such as offshore wind energy, submarine cable and pipeline routes, shipping, fishing and aquaculture are increasing in marine waters and coastal areas, but too little coordination can lead to competition for space and pressure on valuable resources. The proposed action will require Member States to map these activities in **maritime spatial plans** in order to make more efficient use of seas, and develop coastal management strategies that will coordinate measures across the different policy areas that apply to activities in coastal zones. Respecting the minimum requirements proposed by the Directive, Member States will need to ensure that their maritime planning and coastal management supports sustainable growth, while involving relevant stakeholders and cooperating with neighboring states."*

Coastal Concern Alliance contends that Ireland must follow best International practice on this issue and introduce a comprehensive Maritime Spatial Plan following widespread democratic consultation. The document *"Our Ocean Wealth"* could provide a starting point from which to develop a Maritime Spatial Plan for Ireland. Action to develop such a plan could follow the process employed in the UK, i.e. evidence based and adhering to best principles of public participation.

### Extracts from EU Briefing Document on Maritime Spatial Planning

(1) The high and rapidly increasing demand for maritime space for different purposes, such as renewable energy installations, maritime shipping and fishing activities, ecosystem conservation and tourism and aquaculture installations, as well as the multiple pressures on coastal resources require an integrated planning and management approach.

(8) In order to ensure the appropriate apportionment of maritime space among relevant uses and the coordinated management of coastal zones, a framework should be put in place that consists at least in the establishment and implementation by Member States of maritime spatial plans and integrated coastal management strategies.

(9) Maritime spatial planning and integrated coastal management will result in better coordination of maritime and coastal activities, which can lead to significant economic benefits by providing transparency, predictability and stability for investors as well as lowering coordination and transaction costs.

## National Landscape Strategy

The Government is currently producing a National Landscape Strategy, to conform to The European Landscape Convention. Under the Convention the term “landscape” includes seascape. In the absence of a National Landscape Strategy, CCA believes that it is premature to proceed with assessment of the proposed Dublin Array development. This would have a major impact on a huge stretch of unspoilt coastal landscape and, in combination with permitted developments (Arklow & Codling), would result in the industrialisation of the Dublin and Wicklow coastlines.

The Heritage Council submission (5.15) in response to the SEA of the dOREDPA states:-

*“that the draft OREDPA is premature pending the development of a robust national landscape strategy as contained in the Programme for Government to include, at the very least, an evidence based and reliable national landscape / seascape classification system in accordance with the European Landscape Convention and which builds on work undertaken by the DoEHLG, Heritage Council and Fáilte Ireland at a national level.”*

## EU Legislation and Regulations

The Environmental Impact Statement for Dublin Array is governed by Directive 2011/92/EU, the consolidated Environmental Impact Assessment Directive (EIA Directive).

Ireland is already the subject of a number of complaints to the EU Commission in respect of breaches of this Directive, but, to date, has not put in place the necessary legislation and regulations to comply. As a result of this failure, the granting of a Foreshore Lease for this project would breach the state’s obligations under the EIA Directive. Such a breach would leave Ireland open to a formal complaints procedure being commenced against the state by the EU Commission. This could lead to more substantial fines being imposed on the State, fines which would have to be borne by the Irish taxpayer.

By way of confirmation of the state’s failure in this regard, The European Court of Justice, on the 16th of July 2009 in case C427-07, The Commission of the European Communities v Ireland, found that Ireland was in breach of the EIA Directive by failing to put in place a system whereby citizens of Ireland could challenge *“the substantive or procedural legality of decisions, acts or omissions”* in relation to large environmental projects which required an Environmental Impact Statement in a manner that was *“fair, equitable, timely and not prohibitively expensive”*.

Nothing has changed since that decision, so if the state proceeds to grant this Foreshore Lease it will again breach Ireland’s obligations under the EIA Directive.

Under a current complaint to the EU Commission, Reference CHAP (2011) 00708, brought by a citizen, Marie Boland, the Commission is specifically dealing with the issue of Ireland having granted two leases (2002 and 2005) to developers for the development of large offshore wind farms along very large stretches of the Irish foreshore, without compliance with the Directive.

That complaint takes issue with breach of the Directive in that the state has failed:-

1. After granting the leases, to publish its reasoning for having decided to issue same and nor did it attach conditions to the leases to safeguard the environment.
2. The state did not put in place an affordable system to allow citizens to challenge such decisions for large scale environmental projects. The system in place in Ireland is the judicial review system through the High Court, which is extremely costly.
3. The state did not and does not provide information to the public on how to access administrative and judicial review procedures.
4. The state had breached the SEA Directive in respect of the 2005 lease, by granting a lease for a large offshore wind farm without putting in place a plan or programme against which any applications for leases could be measured.

It is the understanding of the complainant in this complaint that the EU Commission, Complaints Section, will very shortly start the formal complaints procedure against Ireland in respect of this matter.

The Foreshore Act 1933, 2 (1) states:- *“If, in the opinion of the Minister, it is in the public interest that a lease shall be made to any person of any foreshore belonging to Saorstát Eirerann, the Minister may, subject to the provisions of this Act, demise by deed under his official seal such foreshore ... to such a person by way of lease...”*.

Were the Minister to grant a Foreshore Lease to the Dublin Array Project, it would be in breach of the EIA Directive and of Directive 2003/35/EC, relating to Public Participation in Decision Making and Access to Justice and, given the potential for that decision to result in penalties being levied against Ireland, would not be “in the public interest”.

## UN Compliance Committee for Aarhus Convention (2012)

A United Nations body has found that the European Union has failed in its commitments towards transparency and public participation in renewable energy policies.

The Compliance Committee for the Aarhus Convention, an international agreement on environment policy transparency, claimed the EU - which is a signatory - has failed to put in place a proper regulatory framework and clear instructions on how to consult local populations in their renewable energy plans. (This ruling results from a case taken by Irish citizen, Pat Swords)

In the firing line are the National Renewable Energy Action Plans (NREAP) that all 27 EU countries have submitted under the 2009 renewable energy directive.

It also reported that the EU had failed to properly monitor the implementation of such an energy action plan in Ireland, and ensuring there was sufficient public participation in drawing up the plan. Ireland’s draft Offshore Renewable Energy Development Plan 2010 is based on our National Renewable Energy Action Plan, which it appears has bypassed proper evaluation and democratic accountability. (See detailed information above).

## Physical environment: Sandbanks (4)

The Dublin Array proposed development is sited on the Kish and Bray sandbanks. These sandbanks which are *“slightly covered by seawater all the time”* are listed for protection under Annex I of the EU Habitats Directive (92/43/EEC).

The Dublin Array EIS states:-

*“Given the relatively mobile state of seabed sediments with currents and tides, habitats will be expected to quickly return to their natural state following construction and recruitment from adjacent unaffected areas should ensure rapid recovery of benthic communities. The impact of the temporary loss of feeding and spawning habitat will be negligible given the small area of seabed likely to be impacted relative to the extensive area of similar feeding and spawning habitat available.”*

This is in direct conflict with the views expressed by the National Parks and Wildlife (2008).

In *“Conservation Status Assessment Report - Sandbanks Slightly Covered by Seawater at all Times”* (2008), National Parks and Wildlife Service, which has responsibility for conservation of protected habitats, gives an overview of the importance of sandbanks in Irish waters and details the threats to their conservation. They review the importance of these habitats as feeding grounds for birds and marine mammals and emphasise their role in helping to reduce the effects of coastal erosion on Ireland’s east coast. They state *“The erosion of coastal sediments is partially arrested by a supply of sediments from offshore banks in deep water and underlies the importance of the banks in sediment transport to shores along the east coast of Ireland”*.

With regard to the threat to the sandbanks as a result of construction and maintenance of proposed wind farms, they conclude that *“the installation of turbines will result in some loss of habitat and the presence of hard structures is likely to change the biodiversity of the banks”*...*“From the large number of sandbanks that have been investigated for their suitability for wind farms..., the future prospects are considered Unfavourable – Inadequate”*.

## Wind Farm Activity on East Coast Sandbanks listed for protection under EU Habitats Directive:

Foreshore Lease for construction awarded			
520 MW Arklow Bank	Wicklow	200 turbines	Area Occupied 68km <sup>2</sup>
1100 MW Codling Bank 1	Wicklow	220 turbines	Area Occupied 55km <sup>2</sup>

Foreshore Lease application under consideration			
520MW Kish/Bray Bank	South Dublin	145 turbines	Area occupied 54km <sup>2</sup>

Foreshore Licence (for initial investigation)			
Codling Bank 2	Wicklow		
Leinster Bank	Wicklow		
Glassgorman Bank x 2	Wexford		
Blackwater Bank	Wexford		

## Human Environment: Tourism (5.8.2)

The unspoilt natural beauty of the coastline in Dublin and Wicklow underpins the tourist industry in these counties and is central to the future of this key economic sector.

The EIS states:-

*“On the basis that the marine environment, seascape and resources play an important role in many tourism and recreation activities, any impact on the coastal or marine environment through the construction or operation of the proposed offshore wind farm development on the Kish and Bray Banks has the potential to have an effect on the tourist industry and recreation.”*

There is no effort to evaluate the potential effects on tourism of this major industrial development. The totally inadequate section on tourism includes a brief reference to the fact that *“the coastal views are intrinsic to the area’s ability to attract tourists and visitors”*. This is followed by a completely unrelated point which states that there are inland areas that will not be affected.

The complete failure to address the effects on tourism is in breach of Article 5.3 (c) of Directive 2011/92/EU, which requires provision of *“the data required to identify and assess the main effects which the project is likely to have on the environment”*.

## Visibility of Navigation Lights (5.11.3)

The light pollution which would inevitably be caused by this development of 145 turbines is inadequately addressed.

It is misleading to imply that the proposed wind farm will not significantly alter the night time seascape. A large array of lights at a height of 160m will dominate the night sky above the horizon, radically altering the character and quality of night time seascape in Dublin Bay and along the coast of Wicklow, particularly in combination with the proposed development on the Codling and Arklow Banks.

## Cultural Heritage (6)

### Cultural and Landscape Impacts

It is important that any development in our coastal zone respects our heritage in line with best international practice.

In this regard, we refer to the Valletta Principles adopted by The International Council on Monuments and Sites (ICOMOS) 2011. These Principles note that:-

*“Perspectives, views, focal points and visual corridors are integral parts of the perception of historic spaces. They must be respected in the event of new interventions. Before any intervention, the existing context should be carefully analysed and documented. View cones, both to and from new constructions, should be identified, studied and maintained.”*

The original Venice Charter on the Conservation of Monuments and Sites of 1964, a seminal document in defining built cultural heritage, in Article 1 states:-

*“The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event.”*

Ireland is a signatory of the Granada Convention (Council of Europe) of 1985, and under Article 3, is obliged to take statutory protection measures to *“make the conservation, promotion and enhancement of the architectural heritage a major feature of cultural, environmental and planning policies and to make provision for the protection of monuments, groups of buildings and sites.* These obligations were put into law in the Planning and Development Act 2000.

The tangible and intangible coastal heritage of these landscapes will be heavily affected by the proposed development. The principles of conservation recognise the importance of the setting in the landscape. The land based planning authorities have recognised this and included preservation of views and prospects in their development objectives. We note below specific sections of the current Development Plans of Dun Laoghaire Rathdown County Council and of Wicklow County Council. Direct quotations from the Development Plans are shown in italics and underlined for emphasis, where relevant.

Of particular note is the impact on several cultural monuments in the coastal zone. We are aware that there are nine structures on Dalkey Island alone listed in the Record of Monuments and Places (RMP) established under the National Monuments Act, including St Begnet’s Church, St Begnet’s Well, the Martello Tower and the Napoleonic Battery. Also listed are the series of Martello Towers and fortifications in the coastal zone from South Dublin to Howth, which match all the categories of interest noted in the Granada Convention, namely historical, archaeological, artistic, scientific, social or technical.

While the visual context and setting of an item such as an incised slab in the old Begnet’s Church in Dalkey will not be affected by the development, all the major items along the coast noted above will have their context and setting changed, which will have a major adverse effect on their perception in terms of cultural context. This includes Carric Golligan Leadmines chimney, Joyce’s Tower, Killiney obelisk, John Rennie’s elegant Kingstown Harbour or the Black Castle and Wicklow Head Lighthouse in Wicklow. Many of these are highly prized by tourists and natives alike for their high cultural value of many dimensions, and go far to define the ‘*Genus Locii*’ or spirit of place of our area.

**This major adverse effect has not been documented or chronicled in the developers EIS.**

Also of significant cultural impact is the major alteration of the listed views and prospects noted below, which our current inadequate legislation fails to protect, thus circumventing local authorities’ well written and thoughtful plans which seek to balance economic advantage with cultural impacts.

## County Development Plans

### **Dun Laoghaire Development Plan: Section 9.**

#### **The landscape, heritage and biodiversity of Dún Laoghaire-Rathdown**

**Vision:** *To establish and foster a “Green Structure” in the County that ensures features of natural heritage are protected, important wildlife habitats are conserved, biodiversity is enhanced, the beauty of the landscape is enriched and maintained and passive and active recreational uses are accommodated in a sensitive manner - all the while acknowledging that the protection of the natural heritage and amenity assets of the County needs to be balanced against the legitimate need to continue to develop Dún Laoghaire-Rathdown in a positive and sustainable fashion.*

Recognising that landscape is the overall key facet which forms the “glue” binding all areas of heritage and to fully integrate environmental considerations into other Development Plan policies to ensure cross compliance of the Plan, Dún Laoghaire-Rathdown contains significant areas of landscape importance. The importance of these areas is particularly key due both to the established built-up nature of the majority of the County and the continuing pattern of densification and intensification. There is a clear presumption in favour of conserving, maintaining and enhancing the landscape character of the County to enable those living within, and those visiting Dún Laoghaire-Rathdown to reap the benefits of the high quality environment and leisure and recreation amenities which this landscape facilitates. Section 10 of the Planning and Development Act, 2000 requires that a Development Plan shall include objectives relating to the preservation of the character of the landscape, including the preservation of views and prospects and the amenities of places and features of natural beauty or interest.

The photograph below is used in Dun Laoghaire Rathdown County Development Plan 2010 to illustrate the importance of landscape. We submit that this image will be changed immeasurably both in landscape characterization, and in terms of views and prospects by a line of man-made turbines marching across the Bay outside Dalkey Island inshore of the Kish Light.



We hold, among other points, that the 2000 Planning Act specifically obliges as well as empowers planning authorities to form an overall strategy for the proper planning and sustainable development of the area of the development plan, and under section 10.2 (e) obliges the planning authorities to include objectives for “*the preservation of the character of the landscape where, and to the extent that, in the opinion of the planning authority, the proper planning and sustainable development of the area requires it, including the preservation of views and prospects and the amenities of places and features of natural beauty or interest.*”

## Co Wicklow Development Plan 2010-16. Chapter 18: Coastal Zone Management

The following objectives are set out:-

*To protect all listed views and prospects to or from Bray Head as set out in the Bray Town Development Plan and Wicklow County Development Plan (Cell 2 Bray Head: Objective CZ2 :Item 4)*

*To protect all listed views and prospects along the R761 and coast in this cell (Cell 5: Greystones to Kilcoole (Ballynerrin): Objective CZ5 Item 4)*

Generally speaking under all the coastal areas, the coastal views and prospects are protected. We hold that the Dublin Array wind farm will, by means of its proximity to land and its height and bulk, grossly affect the views and prospects of the entire Wicklow shore, being particularly prominent from Bray Head.

The Head at 240 meters will appear small compared with the proposed turbine array, a mass of metal 160m high. (Cell 6 Kilcoole - Wicklow Town Item 8).

We further note that in the County Wicklow Wind Energy Strategy it states “*all lands designated SAC or SPA are deemed unsuitable for wind energy development*”. It is noteworthy that one of the major local authorities in the land area whose coastal zone is part of the subject site, has such a strong view on this matter.

## Inadequate Consultation

### Informing “the public concerned”

The Environmental Impact Assessment (EIA) Directive, 2011/92/EU Article 6.4 states:-

*“The public concerned shall be given early and effective opportunities to participate in the environmental decision-making procedures referred to in Article 2(2) and shall, for this purpose, be entitled to express comments and opinions...”*

The Public consultation period is stated in the Public Notice (8<sup>th</sup> April 2013) to run from 9<sup>th</sup> April to 1<sup>st</sup> June. A letter dated 18<sup>th</sup> April 2013 was received by Coastal Concern Alliance on April 22<sup>nd</sup>. This letter was received by us almost two weeks after the public consultation period commenced. This late notification does not comply with Article 6.4 of the EIA Directive.

Based on communication from local Councillors, it appears that information with regard to this proposed development was not made available to all the County and City Councillors in Fingal, Dublin and Wicklow.

Community Councils in the Dun Laoghaire area were not informed.

The “*public concerned*” were not given “early” opportunities to participate in the environmental decision making process.

## Marine Mammals (10.2.5)

We note that the Irish Whale and Dolphin Group have lodged a strong, scientifically based objection to the proposed development. As they are the statutory consultees on this issue, CCA supports their objection on the basis that the proposed development would be in contravention of the EU Habitats Directive.

## Landscape and Visual Impact (12)

### A professional assessment of the Visual Impact on preserved shoreline views was carried out by Model Works Media.

#### Introduction

The Saorgus Energy Ltd proposed wind farm on the Kish and Bray banks consists of 145 turbines each measuring 160m in height (for reference, Howth Head is 171m and the Kish lighthouse is 31m high).

In order to assess the cumulative impact of this proposal, we have also modelled the first phase of the approved Fred Olsen Codling bank wind farm off Greystones consisting of 200 turbines. The attached layout map takes its information from the Saorgus EIS and The Codling Bank EIS as published by the developers.

Macroworks Ltd on behalf of the developer, created a set of photomontages for the Dublin Array, based on their Zone of Theoretical Visibility and carried out the Visual Impact Assessment on behalf of the project promoters and I will comment on this below.

My focus has, however, been on the preserved coastal views as defined in the Dun Laoghaire Rathdown County Council (DLRCC) development plan and in the Wicklow County Council development plan. Being an "offshore" development, these views are by definition the closest and most impacted views. There are approximately 45 preserved coastal views in the DLRCC development plan and most of these are in conservation / heritage areas. Almost all of these are impacted by the Dublin Array proposal.

The Wicklow County Council in their development plan have designated Bray Head a:

- Coastal Natural Heritage Area
- A Special Area of Conservation
- A Special Protection Area
- A Special Amenity Order Area
- Sea Views of Special Amenity Value
- A Prospect with a Special Amenity Value

We prepared three representative coastal view photo-montages to illustrate the impact of the Dublin Array proposal and two views from Bray Head to illustrate this, and the cumulative impact of the Dublin Array and Codling Bank wind farms.

#### Qualification of Model Works Media

Model Works Media is an established and well recognised firm in the production of verified photomontages and in the assessment of visual impact on receiving environments. We are recognised as an independent expert among the architectural and planning professions. Our work is regularly relied upon by designers and planning authorities in the visual assessment of proposed developments. Our methodology follows, and in some cases informs, best practice in the industry.

#### Review of the developer's photomontages and visual assessment

It is noted that 22 views are presented following an exhaustive zone of theoretical visibility (ZTV) process. However, the impact on some very specific and critical heritage views was not studied and I seek to address this issue in this submission.

Several documents referred to by Saorgus for "*pertinent best practice guidance*" include "Visualisation Standards for Wind Energy Developments, Highland Council 2010". This is really the only relevant and up to date reference document. In fact, the current edition is May 2013 revised edition.



This edition reports on the following finding:-

*"In 2011 The Highland Council commissioned a study from the University of Stirling into which lens focal length best equates to our real life vision in terms of scale and distance in a landscape involving a range of distances. It was an intercept study carried out at six locations in Scotland involving over 500 members of the public. The study concluded that 70mm - 90mm focal lengths were preferred, with a mean average of 79mm over all distances and a focal length of 50mm generally UNDERSTATES landscape scale"*

Also under the heading *"Images for landscape assessment - Visualisation Requirements"* it states where panoramas are used:-

*"Each panorama shall have a horizontal field of view of a 28mm lens - 65.5 degrees."*

### **The panoramas submitted by Saorgus Energy exceed this recommendation by 300%.**

The purpose of limiting the focal length to 50mm or indeed 70mm - 90mm is to limit the angle of view to less than 39 degrees so as not to present an un-realistic image. Stitching many photos together to create a 180 degree panorama, contradicts the entire principle of limiting the angle to less than 39 degrees for assessment purposes.

Impacts are assessed partly on the basis of the proportion of the image that is affected by the development (Magnitude). Indeed the developer states this proportion on each of the panoramas. This allows the developer to UNDERSTATE the impact by up to 4.6 times! "Panoramas" are only acceptable if mounted on a large enough semi circular (in the case of 180 degrees) display. Only then can the viewer experience the real impact.

On page 19 of the EIS Non Technical Summary the following claims are made:-

*"The site layout design which consists of regular rows of turbines ensures that the turbines appear in regular spaced rows from most viewpoints."*

This statement contradicts the evidence of the developers own photomontages. Of 31 rows along a 17 km line only the 2-3 rows perpendicular to the viewer will appear as individual rows. The remaining 90% appear as a continuous mass.

*"The east coast is already heavily influenced by human development, therefore the development would be set in the context of a landscape that has a tolerance for man-made developments."*

This statement is at odds with the nature of the "preserved views" along the entire coast and appears to confuse industrial turbines with Martello towers, Lighthouses, Georgian Terraces and immense natural beauty.

Additionally, there is a common misconception that low lying views generate a lesser visual impact that elevated views simply because fewer turbines are visible. However, it is long recognised among designers, planners and conservationists that developments which alter the "skyline" have a much greater potential impact than those which do not. Turbines seen against the skyline and which compete with the profile of natural land-form and seascape and heritage buildings will clearly have a far greater negative impact.

## **Evaluation of Seascape and Visual impacts: Combining Sensitivity and Magnitude**

### **Methodology summary employed by Model Works Media in the production of verifiable photomontages.**

#### **Choice of View:**

All coastal views from Dun Laoghaire to Bray were studied. In particular preserved views and prospects as defined by DLRCC and Wicklow CC. Four of the most sensitive locations were selected to photomontage on the basis that they were representative and sensitive.

#### **Photography:**

The photographs were shot using a Hassleblad medium format digital camera with a fixed 80mm lens. This is a high end professional camera producing a 35million pixel file with a distortion free lens. GPS co-

ordinates were recorded for all camera locations for input to 3D Studio Max to create the matching wind farm renders.

### **3D Model:**

Using information published by the developer, both the Dublin Array and the Codling Bank wind farms were modelled using the exact layout and turbine design proposed. In addition, reference points and objects such as The Kish lighthouse were also modelled to verify accuracy of scale and location.

### **Photomontages:**

Renders of the wind farm 3D model were created in 3DS Max to match each photograph taking into account camera position, field of view and direction of view. Each render is lit to match the sunlight conditions in the photograph so that the development appears realistic in context.

### **Photomontages (Appendix A)**

- View 1. Impact on preserved view from Sandycove
- View 2. Impact on preserved view from Coliemore Harbour
- View 3. Impact on preserved view from Vico Road
- View 4. Impact on protected views and prospects from Bray Head
- View 5. Cumulative impact on protected views and prospects from Bray Head

## **Assessment of Impacts considering Sensitivity and Magnitude**

### **Magnitude:**

The Dublin Array is approximately 17km long, parallel to the Dublin and Wicklow coastline and approximately 10km offshore. Combined with the Codling Bank wind farm phases one (permitted) and two (proposed) it would comprise a continuous line of turbines 35km long.

**In all views from Dun Laoghaire to Wicklow Head the development will have A MAGNITUDE OF 100%. That is to say that in all views the development will fill the view.**

### **Sensitivity:**

The Irish Environmental Protection Agency defines a "profound" impact as one which "OBLITERATES SENSITIVE CHARACTERISTICS".

Given the sensitivity of the shoreline views, their "preserved" designation and their natural heritage, conservation and amenity context, the visual impacts must all be categorised as SIGNIFICANT, PROFOUND AND NEGATIVE.

**On the basis of the Visual Impact Assessment carried out by Model Works Media, it is clear that a Foreshore Lease should not be granted for construction of this proposed development.**

## **Appendix A**