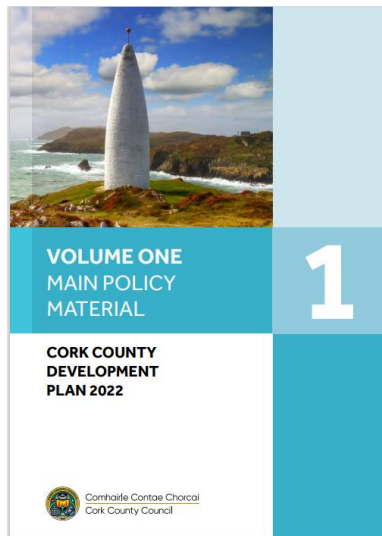


Thomas Watt, Senior Planner

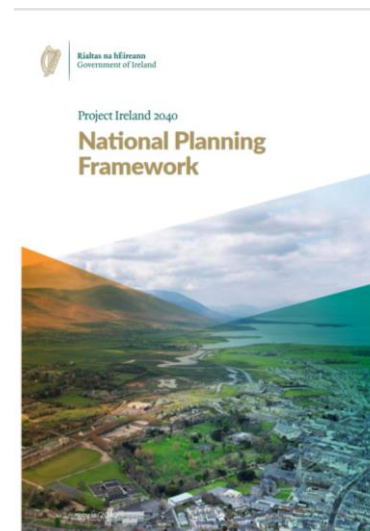
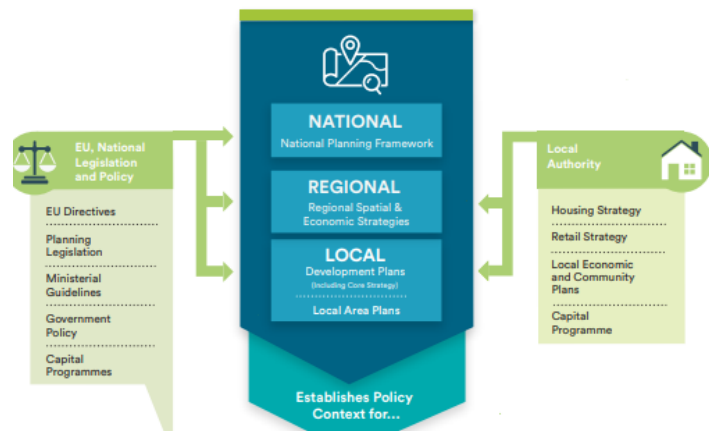
Marine Spatial Planning & On-Shore Development



Comhairle Contae Chorcaí
Cork County Council



Irish Planning System An Overview



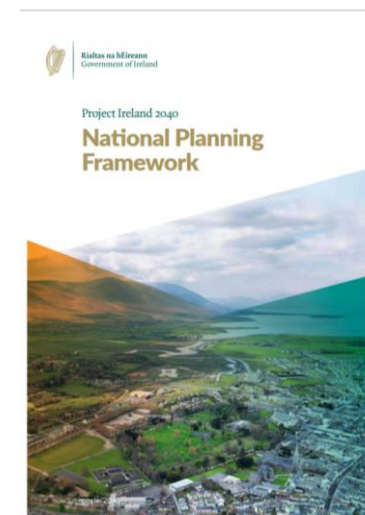
SUSTAINABLE DEVELOPMENT GOALS



CEPRIC | United Nations



National Planning Framework and its National Strategic Outcomes and Priorities of the National Development Plan



Cork County Development Plan 2022

International Policy Context

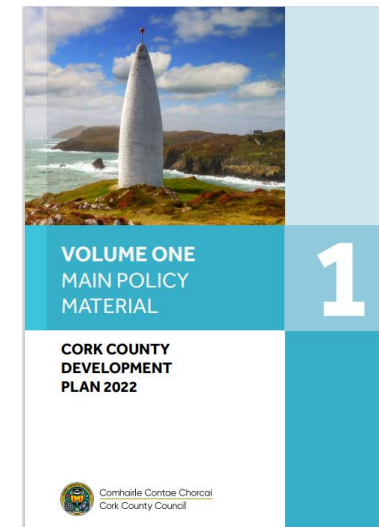
UN Framework on Climate Change: to stabilise global greenhouse gas emissions

2015 Paris Agreement: to accelerate actions and investment

Energy Union: EU Framework strategy for resilient energy and climate change policy

EU Directives legally binding targets to reduce emissions and increase renewable energy share

2020 Green deal greenhouse gas emissions reduction from 40% to 55% by 2030 to be carbon neutral by 2050



Cork County Development Plan 2022

Climate Action Plan 2021

Roadmap to achieve carbon neutrality to halve our emissions by 2030 and reach net zero no later than 2050

Key aspects

Decarbonisation which includes reducing GHG emissions and greater use of renewable energy;

Energy Efficiency - improving energy rating of buildings, phasing out of oil and gas boilers etc.

Energy Security - increase indigenous renewable sources of energy etc.

Internal Energy Market - maintain and develop links with energy markets, improve interconnectedness.

Research, Innovation and Competitiveness – support the development of new technology

This plan sets a roadmap for taking decisive action

National Energy and Climate Plan (NECP)

Supports net zero target by 2050





Cork Harbour

Economic Role of Cork Harbour Area

- Strategically important to the County and the Region, it supports a population of c.72,000 and +29,000 jobs.
 - Supporting Port activities, Industry, Marine sector research and development, Tourism and Marine Leisure activities. The Harbour is culturally and historically significant for its rich natural & built heritage, (military).
 - 5 x County Metropolitan Towns of Cobh, Carrigtwohill, Midleton, Passage West/Monkstown and Carrigaline
 - 4 x Strategic Employment Locations of Ringaskiddy, Little Island, Carrigtwohill and Whitegate/Aghada
 - Collectively, the Harbour area has been the fastest growing area within Cork, with 77% population growth since 1991 (compared to 42% for Cork overall during the same period).
 - Cork Harbour GDP: €4.5bn
-

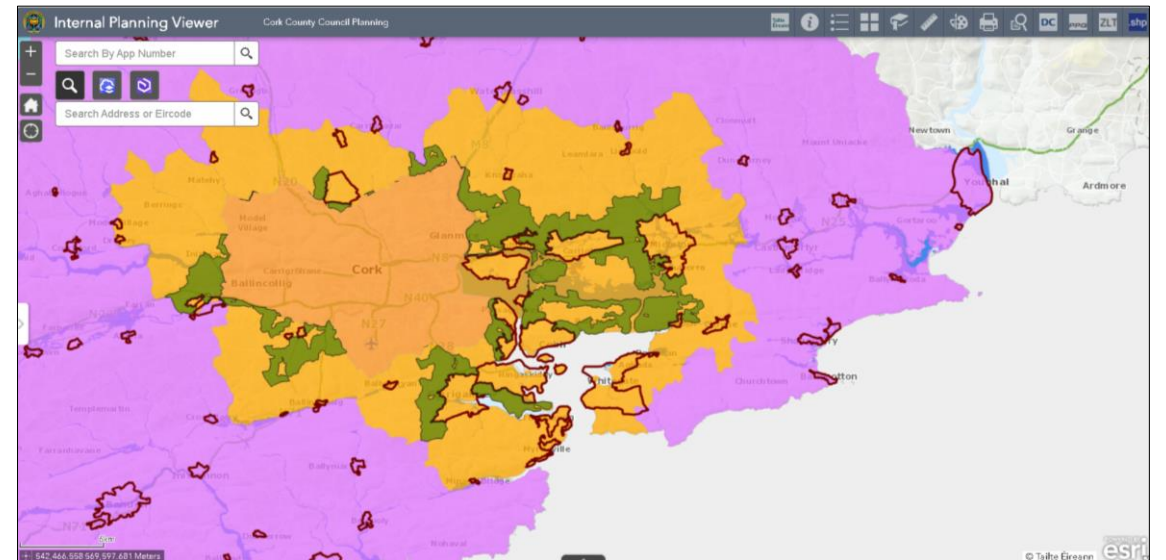
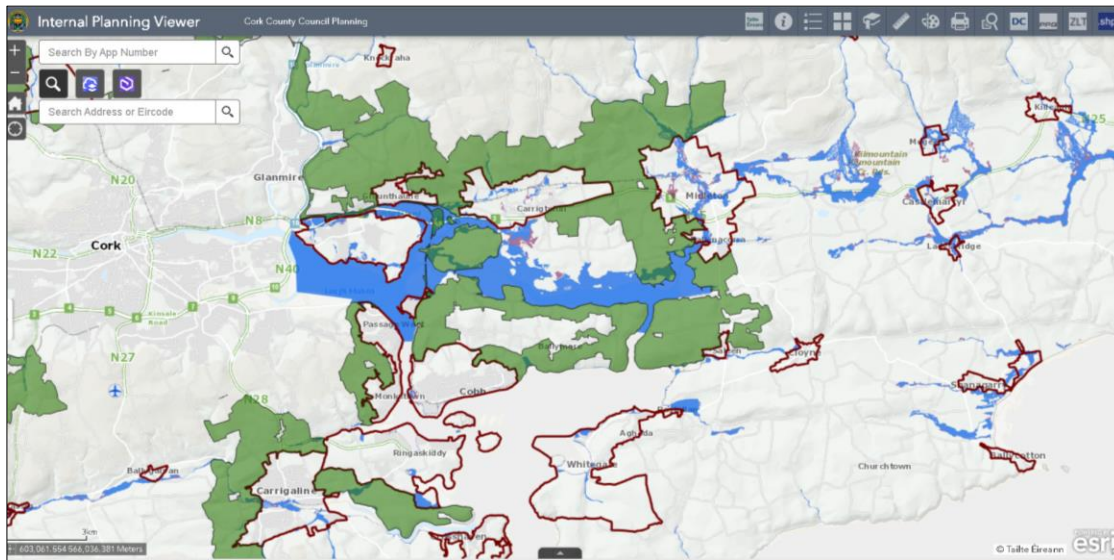
Continued growth dependent on

- The **need to broaden the base of the economy, use innovation to drive growth** and build on our **locational distinctiveness** with place making strategies that acknowledge the reality of what attracts companies to invest in an area i.e. **access to skills, talent, higher education** and a combination of factors, such as innovation capacity, infrastructure investments, competitive services and amenities, property solutions, housing, quality of life, access to trade and markets etc.
- The need to plan for a more **sustainable future in the context of climate change**, shifting demographics, **technological development and the transition to low carbon, bio and circular economies**

County Development Plan Objective EC: 8-1 Cork Harbour

- a. Promote Cork Harbour as a unique and strategic asset in the County Metropolitan Cork Strategic Planning Area and the Region and seek investment in the sustainable development of projects that will strengthen the potential for Cork Harbour to continue its role as a key economic driver within the region, as a location of choice for FDI, to stimulate the expansion of the SMI sector, to support diversification of the County's economic base, be a first mover in Marine Spatial Planning, a significant driver for economic growth overall, while also ensuring the need to balance the desire for growth and development with the need to protect natural and other (built and cultural) heritage, residential amenity and environmental assets within the harbour as well as facilitating other uses of the harbour (e.g. recreational uses) through the implementation of ICZM.
- b. Guide the sustainable future management of different uses in the Cork Harbour area, through a specific planning framework initiative, including strategic economic uses, while protecting the sensitive ecosystems and designated natural habitats including the Cork Harbour SPA and the Great Island Channel SAC.
- c. Careful consideration will be given to the most appropriate policy approach to managing the future development of the Cork Harbour Economy (CHE) as set out in RPO79 of the RSES to ensure that the sustainable development of the area not only harnesses the economic and social benefits but also ensures that biodiversity, flora, and fauna both within and outside protected sites are considered via the appropriate SEA and AA mechanisms.

Cork City, Metropolitan Cork & Key Settlements



Cork's Energy

Cork plays a significant role in the security of energy supply and electricity production in Ireland being home to two Power Stations at Aghada/ Whitegate operated by the ESB and Bord Gáis, (and a 3rd Station permitted).

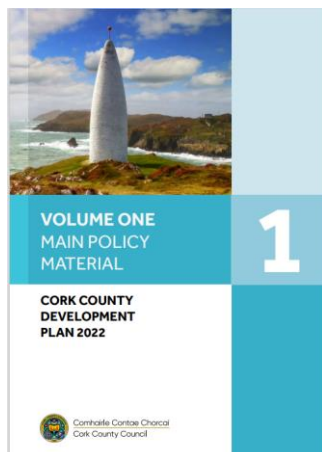
Whitegate Oil Refinery supplies 40% of national petroleum needs, and Whiddy Island Oil Terminal stores Ireland's oil reserves.

The Kinsale Gas Field is decommissioned. Opportunity to re-use infrastructure.

Task to decarbonize, reduce greenhouse gas emissions and secure our energy needs with renewables



Key Energy Infrastructure



Energy Policy

Objective ET 13-1 **Energy**

Ensure that County Cork fulfils its potential in contributing to the sustainable delivery of a diverse and secure energy supply and meet renewable energy targets.

Prepare a 'Renewable Energy Strategy' for the county.

Objective ET 13-2 **Renewable Energy**

Support Ireland's renewable energy commitments... facilitating the development of renewable energy sources such as wind, solar, geothermal, hydro and bio-energy and energy storage at suitable locations within the county... where demonstrated that it will not have adverse impacts on the surrounding environment...

Objective ET 13-3 **Hybrid Energy Systems**

Support and facilitate proposals for hybrid energy systems and /or co-location of renewable energy where such development has satisfactorily demonstrated that it will not have adverse impacts on the surrounding environment...

Energy Policy

Objective ET 13-4: **Wind Energy**

will **support further development** of on-shore wind energy projects

Objective ET 13-14: **Solar Farm Development**

support solar farm projects at appropriate locations, where such development does not have a negative impact on the surrounding environment, landscape, historic buildings, or local amenities.

Objective ET 13-16: **Ocean and Off-shore Wind Energy**

Support the appropriate development of ocean and offshore wind energy production off the Cork Coast by **ensuring adequate provision of land-based infrastructure** in line with national policy, and in a way that avoids significant adverse impacts on sites of ecological value and protects the wider environmental, heritage, landscape and marine resources of the area. The **need for land-based infrastructure** to support the assembly, deployment, and maintenance of the off shore energy structures is recognised, as is the **need for an integrated approach** to the use and management of the coastal zone and coastal resources.

Energy Policy

Objective ET 1-17: **Bioenergy**

Encourage the development of commercial bioenergy plants on brownfield sites which are adjacent to industrial areas or on lands which are reserved for industrial uses or on brownfield sites in rural areas.

Objective ET 13-18: **Hydrogen Energy**

Support the sustainable development of hydrogen energy at suitable locations across the county, and in accordance with the other objectives of this plan, as part of the overall clean energy mix for the county and to support decarbonisation.

Objective ET 13-21: **Electricity Network**

Support and facilitate the sustainable development, upgrade and expansion of the electricity transmission grid, storage, and distribution network infrastructure.

Objective ET 13-25: **National Energy Hub- Whitegate**

Safeguard and support the role and function of the Whitegate area, as a preferred strategic location for energy developments that continues to play a key role in meeting the State's energy requirements and oil refining needs in a manner that is compatible with the residential and amenity values of the village, as well as the nature conservation values of the adjacent Cork Harbour Special Protection Area.

Cork Energy

Energy generation in Cork is likely to evolve significantly over the next number of years as the move towards a low carbon economy increases and the need to produce more energy from renewable sources.



Cork is well positioned to become self-sufficient in renewable energy and contribute to the achievement of national energy targets outlined above.



During the life of this plan, the Planning Authority will prepare a **Renewable Energy Strategy** for the county.

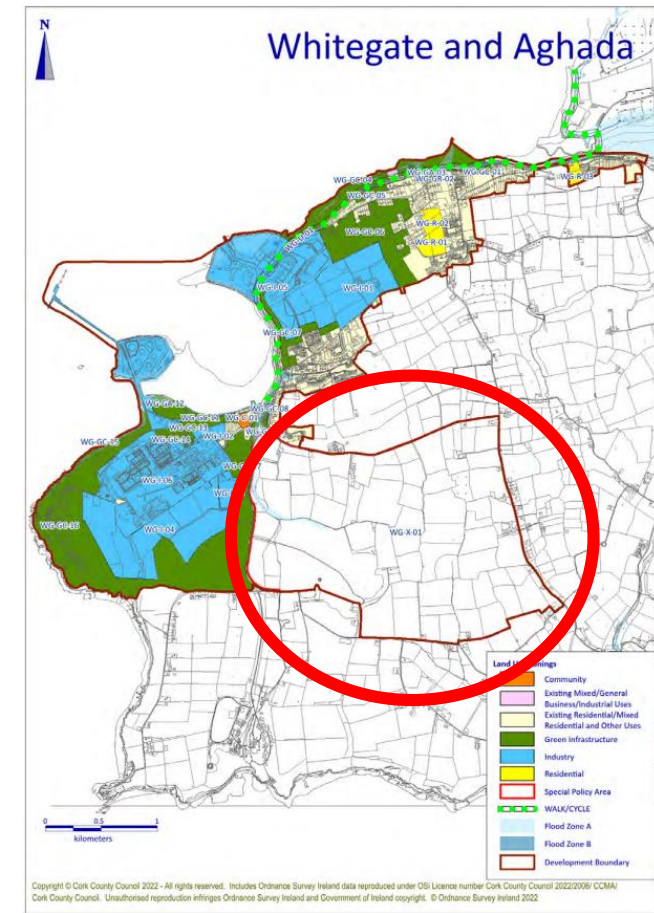
Whitegate & Aghada: Ireland's Energy Park

Vision and Context

3.8.1 The overall strategic aim for Whitegate and Aghada is to promote its role as a location for the storage and processing of strategic energy resources, consolidating its industrial and harbour related roles within this sensitive coastal setting and with limited expansion of residential uses. Whitegate has been designated as a Strategic Employment Location in this plan suitable for large scale employment development, i.e., large stand-alone uses which require significant amounts of land.

Objective No.		Site Area (Ha)
Special Policy Area		
WG-X-01	Area with potential for major, large-scale energy and renewable energy related development, including port-related activities and bulk liquid storage and processing activities. The siting and design of large structures or buildings shall have regard to the existing site contours, the need to minimise the visual impact of the development and the requirement to protect the residential amenities of existing properties. It is not intended that the entirety of this site be development but that proposals for the development of the site shall include for the provision of long term structural landscaping with particular attention to the site boundaries and existing residential development. Development proposals shall also provide for the upgrading of road, water supply and wastewater infrastructure to a standard acceptable to the Council. Proposals on this site shall also include adequate measures for the protection of recorded monuments on site.*	388.0

Recent Applications include a Gas Turbine Power Station; Energy Storage Systems x 4; Green Hydrogen Production facility; Synchronous Compensator (Grid Stabilisation facility)





CDP Review Theme 6. Energy and Marine

- Wind Energy
 - There are **41 operating windfarm** developments in County Cork with capacity of **719MW**.
 - **16 projects (143 MW approx.)** have been permitted but are not developed, and
 - 2 applications are currently going through the planning process.
 - Cork County Council developed a **Wind Energy Strategy** for 2014 Plan and was carried forward to the 2022 Plan.
 - Based on guidance from the “Planning for Wind Energy Development Guidelines 2006” and the SEAI Manual ‘A Methodology for Local Authority Renewable Energy Strategies’ April 2013.
 - In 2019, the Department published the Draft Revised Wind Energy Guidelines, these guidelines are yet to be finalised.
 - The Wind Energy Strategy will be reviewed as part of the preparation of the **Draft Renewable Energy Strategy** for the County commencing in Q4 2024.
 - **Renewable Energy Vision for the Cork Harbour and Coastline**, launched March 2024
-



Economic & Renewable Energy



CDP Review

- **Energy generation is evolving** significantly as we move towards a low carbon economy by reducing our reliance on non-finite resources and produce more energy from renewable energy sources. As **technology and infrastructure advances** over the lifetime of the plan, other forms of renewable energy developments will help contribute to meeting our renewable energy targets.
 - Council intends to commence preparation of a **Draft Renewable Energy Strategy** in Q4 2024.
 - Council will continue to monitor energy applications and the progress of the renewable energy sector.
 - Cork County Council will **continue to work with infrastructure providers** to support the improvement and development of strategic infrastructure needed to facilitate the development of renewable energy projects.
 - Council will continue to **support the European projects** of relevance to the marine environment and coastal areas.
 - The publishing of the **Draft Designated Maritime Area Plan (DMAP) for the South Coast** due in Spring 2024 which **will set out the overall vision for the marine spatial planning for the area**. Additionally, it will determine the broad areas best suited for renewable energy projects to be developed along the south coast.
-

Celtic Interconnector

Eirgrid is the electricity Transmission System Operator for Ireland

Manages the flow of power on the electricity grid, moving high voltage electricity around the country

Manages the East-West Interconnector to the UK

Developing the Celtic Interconnector with RTE (France)

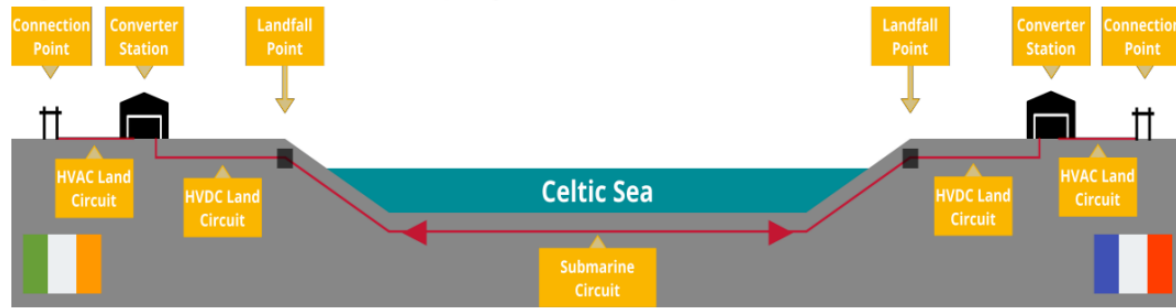
Designated Operator and Transmission Asset Owner for Ireland's offshore grid

Operates the Single Electricity Market for the Island of Ireland,



Celtic Interconnector

Figure 0.1: Celtic Interconnector (Project Overview)



Source: EirGrid



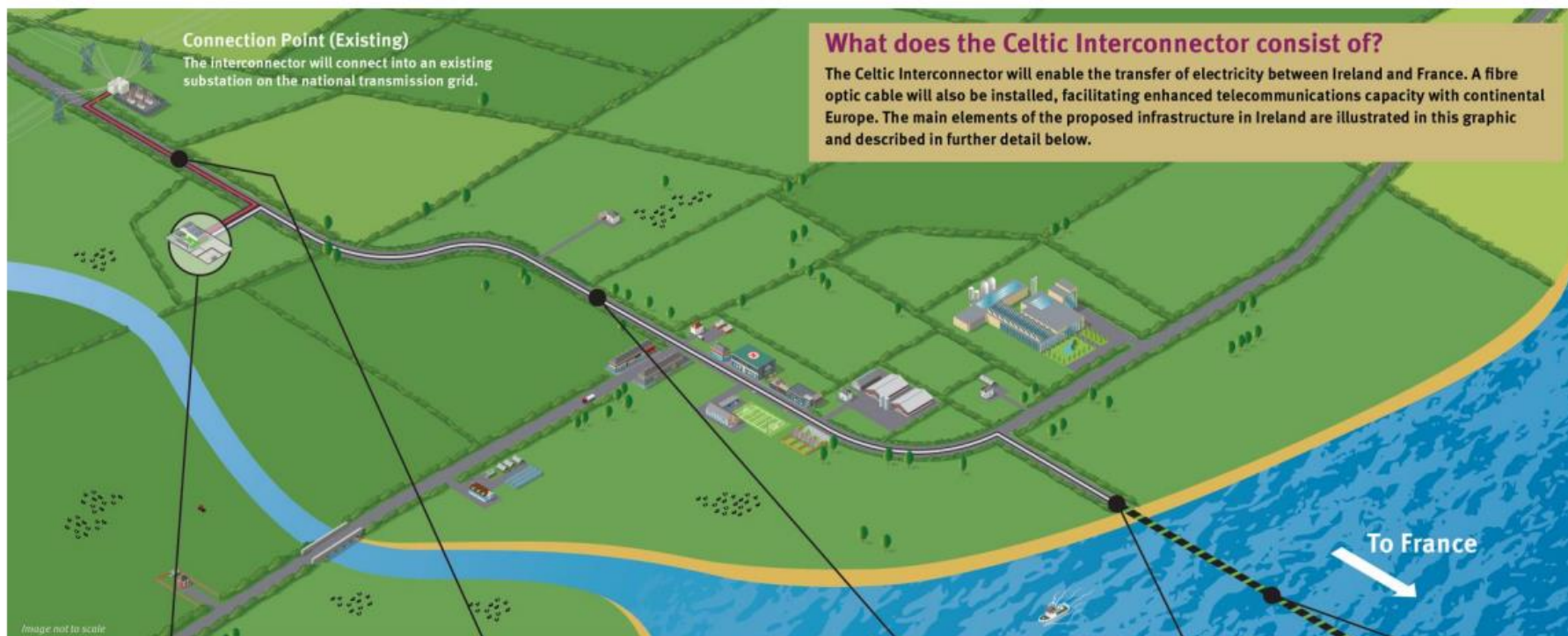
Connects Brittany, France and Cork, Ireland. 320kV cable, 575km



Lands at Claycastle beach. 'Blue flag' beach, south of Youghal.



Connects to Transmission Grid at Knockraha

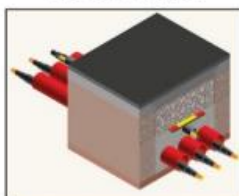


Converter Station



The interconnector will use High Voltage Direct Current (DC) technology, the global standard for the transfer of electricity over long distances using subsea cables. The electricity systems in Ireland and France both use Alternating Current (AC) technology, so converter stations are required at either end. The converter station is an industrial type building and outdoor compound with typical dimensions of 300 m x 150 m and a height of up to 25 m.

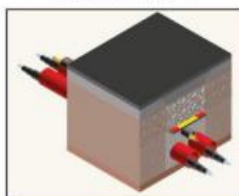
AC Land Circuit



The circuit between the connection point and the converter station can be an underground cable, if they are located within a number of kilometres of each other. Otherwise, the circuit will be an overhead line. As an underground cable, the circuit would be installed in ducts under the road network, which would be fully re-instated.

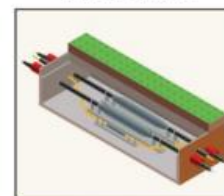


DC Land Circuit



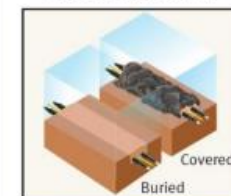
The circuit between the converter station and the landfall point will be by underground cable installed in ducts under the road network, which will be fully re-instated. The total length of this circuit is expected to be between 30 – 40 km.

Landfall Point



This is where the land circuit will connect to the submarine circuit by way of an underground transition joint. This will be installed behind the beach where the submarine circuit comes ashore. The landfall point will be fully re-instated following completion of the works.

Submarine Circuit



The submarine circuit between Ireland and France will be approximately 500 km. It will be either buried beneath the seabed or laid on the seabed and covered for protection.

Figure 3 - What does the Celtic Interconnector consist of?

Celtic Interconnector



A connection to the Irish National grid at the existing Knockraha substation on 2ha site;
Including 400 kV and 220 kV Air Insulated Switchgear (AIS) equipment.
4no. 400 / 220 kV transformers, 5no. lightning protection poles - 20metres in height.

An Electricity Converter Station (floor area 4,840sq.m. - 25metres high) at Ballyadam, Carrigtwohill in compound of 3.5ha; A 400 kV substation compound; 14no. lightning protection poles - height of 25m

Installation of a Transition Joint Bay (TJB), area 60sq.m at the proposed landfall point at Claycastle Beach; where the proposed High Voltage Direct Current (HVDC) underground cables will connect with the proposed submarine cables

Installation of HVDC underground cables, c.32km in length, connecting landfall at Claycastle Beach and converter station at Ballyadam.

Installation of cables will require associated joint bays and link boxes, temporary laydown areas, passing bays and water, rail and utility crossings.

Celtic Interconnector



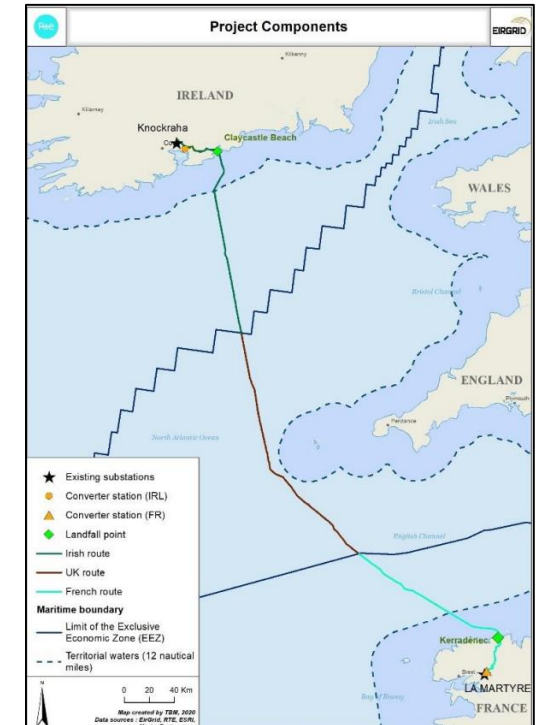
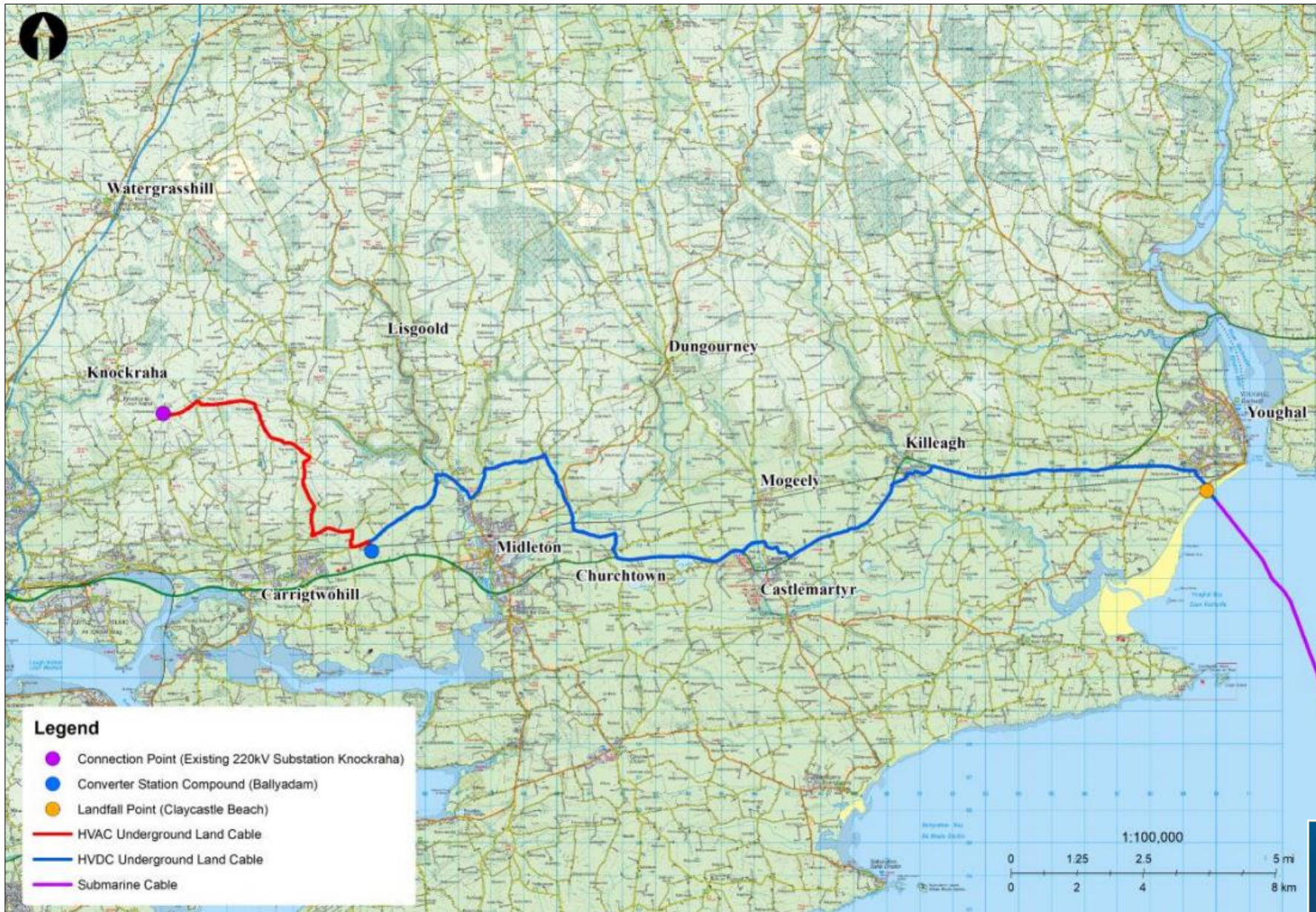
Installation of High Voltage Alternating Current (HVAC) underground cables, c.11km in length, connecting the converter station, **Ballyadam** and the grid connection point, **Knockraha substation**.

Cables laid in trench 0.8m width and 1.5m depth; and associated joint bays and link boxes, temporary laydown areas, passing bays and water, rail and utility crossings using either HDD or open cut techniques.

Installation of fibre optic, telecommunication and other associated cabling all carried in underground ducts within the proposed HVDC and HVAC trenches.

Temporary construction compounds x 3 on sites of **1.5ha each**, including site works and ancillary staff facilities and parking. **Temporary construction laydown areas x 6** on sites of approximately **0.7ha each**.

All associated and ancillary above and below ground development including works comprising or relating to construction works, roadworks, excavation (including HDD) and vegetation clearance

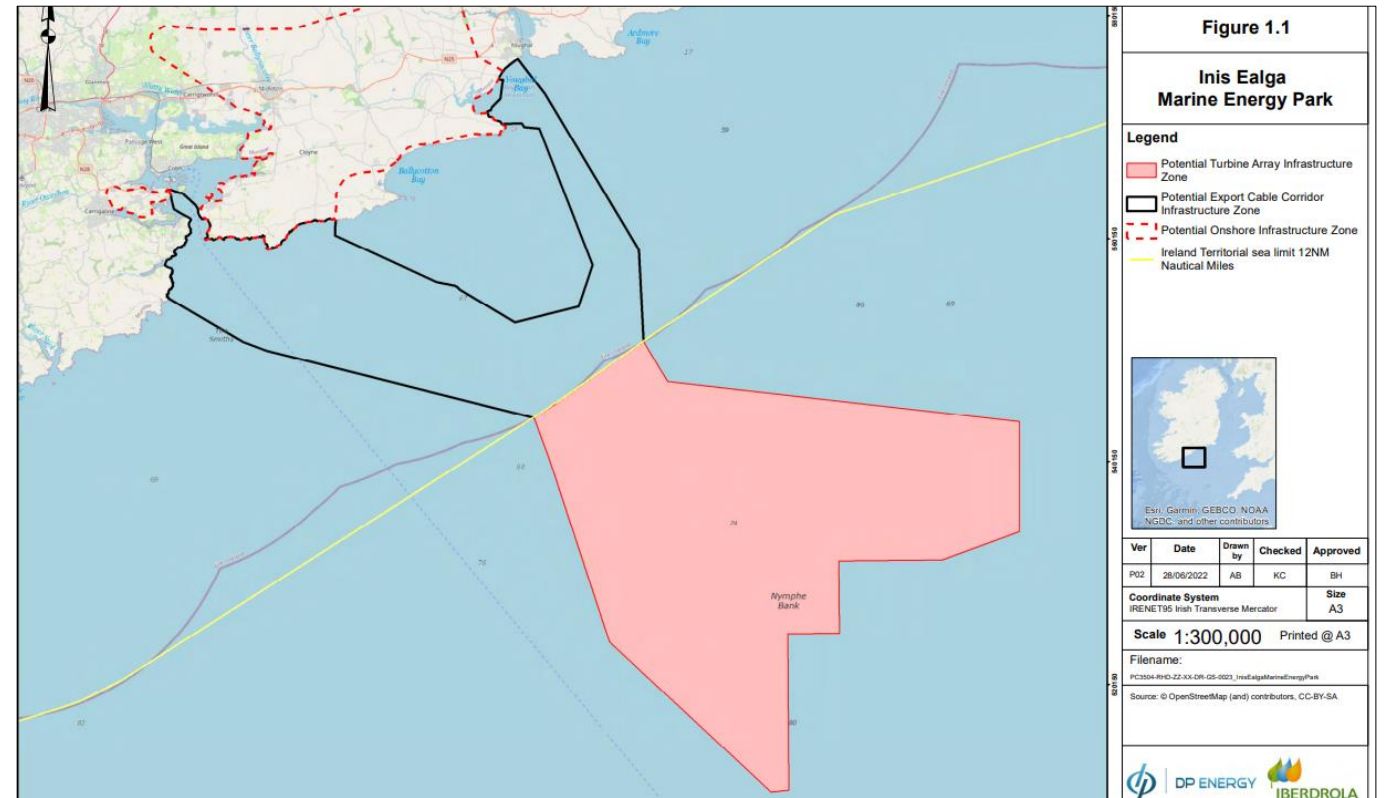


Celtic Interconnector

Chronology

- Pre-applications consultations May 2019 – Feb 2021
- Application July 2021
- Decision May 2022
- Granted subject to 24 no. Conditions. <15no. Required substantial / sig. deliverables, many 'prior to the commencement of development'
- 1st Compliance submissions issued June 2023
- Significant conditions relating to EIAR Mitigation measures to be agreed prior to the commencement of development. – relating to recording Archaeology and Ecology matters , and operational management plans - Env & Cons Mgt, Traffic and Waste Mgt.
- Site investigations, design and enabling works, followed by Construction works
- Project delivery split into two contracts and contractors resulting in 2 sets of distinct compliance submissions:
- Road pre-condition surveys, TMP, CEMP, incl. Noise and SWP, WMP, Translocation of Protected Species, Invasive Species MP, Lighting plans
- 11no. submission received by June 2024. 1no. Condition discharged

 ArticleTalk	ReadEditView historyTools
From Wikipedia, the free encyclopedia	
The twait shad or twaita shad (<i>Alosa fallax</i>) is a species of fish in the family Alosidae.^[1] It is found in the eastern Atlantic Ocean and the Mediterranean Sea and is an anadromous fish which lives in the sea but migrates into fresh water to spawn. In appearance it resembles an Atlantic herring but has a row of six to ten distinctive spots on its silvery flanks. They become mature when three or more years old and migrate to estuaries, later swimming up rivers to spawn. Populations of this fish have declined due to overfishing, pollution and habitat destruction. Conservation of this Appendix II and V of the European Community	
Description [edit] The twait shad is a typical herring-type fish. Its belly is more rounded than that of the sprat and has large, plate-like scales. This fish is more round and the head brownish with a golden tinge or orange, and there are a distinctive row of six to ten dark spots along the side. The adult length may reach 40 cm when the fish is dead.	
Distribution [edit] The twait shad is found in most of Europe and the Mediterranean Sea.	Conservation status Extinct (EX) Threatened (EW CR EN EW NT LC) Least Concern (LC) Scientific classification [?] Domain: Eukaryota Kingdom: Animalia Phylum: Chordata Class: Actinopterygii Order: Clupeiformes Family: Alosidae Genus: <i>Alosa</i> Species: <i>A. fallax</i> Bionomial name <i>Alosa fallax</i> Lacépède, 1800
Biology and lifecycle [edit] <i>Alosa fallax</i> has a similar lifecycle to <i>A. alosa</i> (allis shad). They are known to live in sympatry.^[3] Some studies have suggested <i>A. fallax</i> and <i>A. alosa</i> species can hybridize.^[4] They are anadromous species, like many other species in the genus <i>Alosa</i>.^[4] However, some record of them being landlocked suggests an ability to adapt well to their environment.^[4] They primarily live at sea on feeding grounds and migrate to their spawning grounds between April and June once they are sexually mature.^[4] Maturity usually ranges from 3–7 years of age.^[4] Juveniles appear in estuaries and brackish water around June to July.^[3] The salinity of brackish water may pose problems to the juveniles migrating from fresh water.^[3]	
Population reduction [edit] Populations have been reduced primarily through overfishing, pollution, habitat destruction and migratory route obstruction in the Victorian Era.^{[5][4]} Hybridization between species is more likely with species affected by human disturbances.^[4] It is estimated that the estuarine phase, or the time that they are in the estuaries migrating from spawning grounds to sea, has a duration in <i>A. fallax</i> of up to a year and a half.^[3] The estimate, however, does not take into account individual variation and survival of juveniles in the estuarine phase.^[3]	

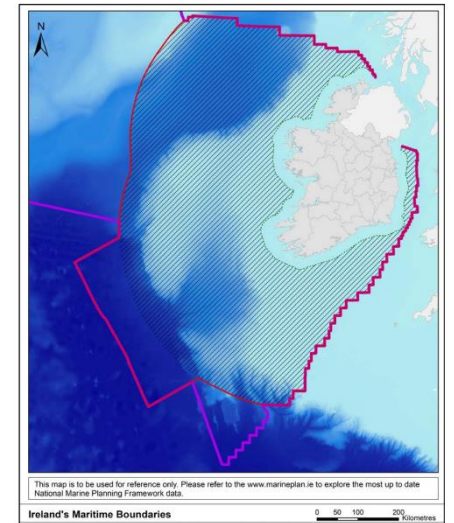
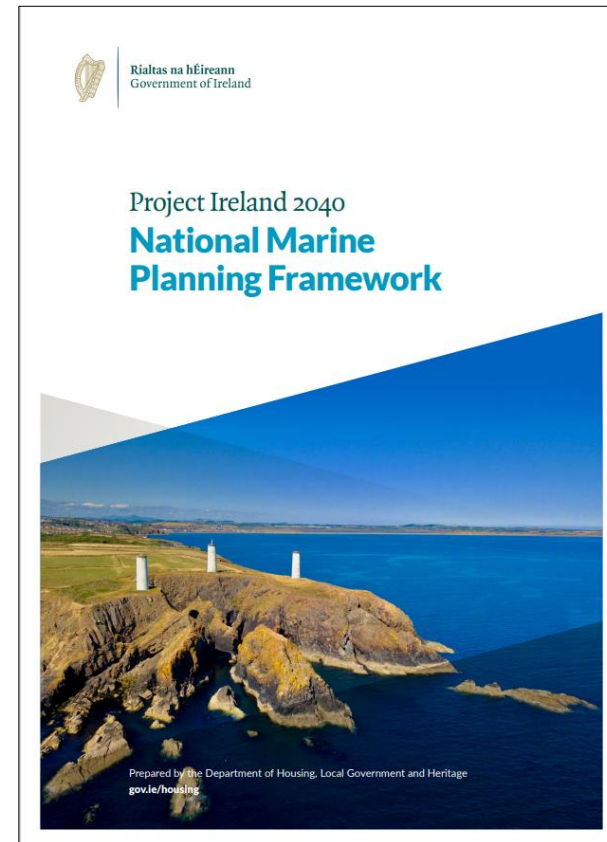
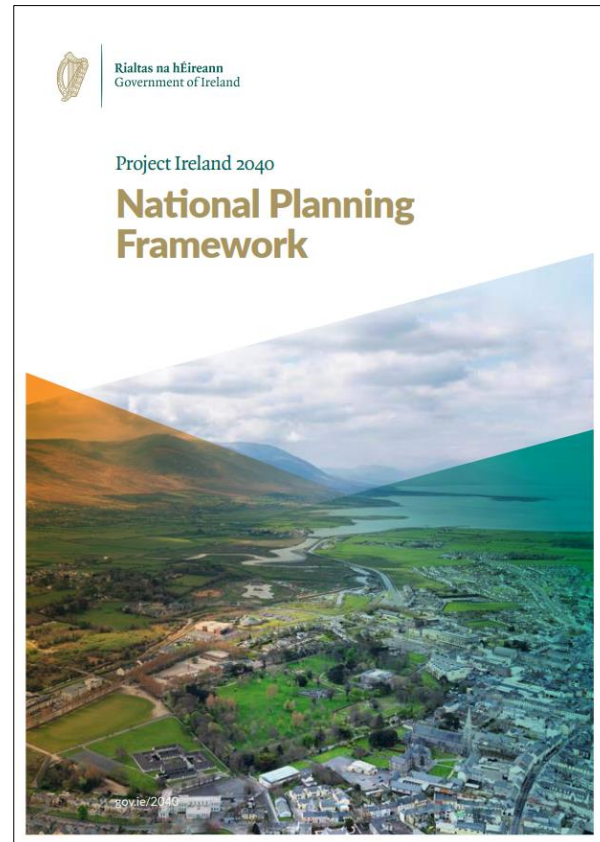


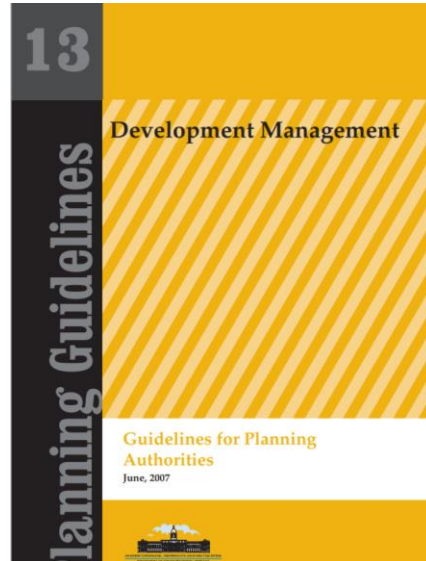
Marine Spatial Planning is new discipline for Las that requires specialist Ecology resources and expertise in order to enable worthwhile inputs and advice

Lessons

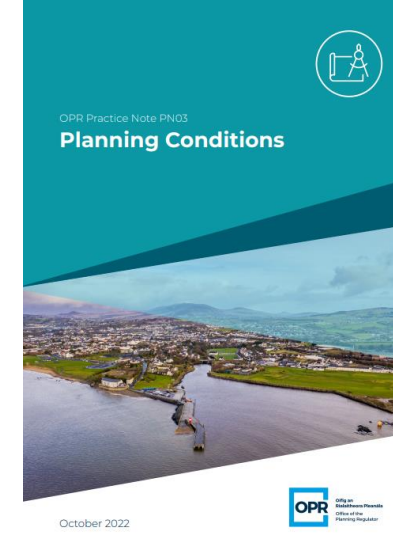
- Market led dispersion of infrastructure and installations
- Has Age profile of farmers more influence than Land Use planning?
- Lack of spatial framework strategy.
- Lack of allocation / targets at County, Metropolitan, Regional level
- Should we integrate Land Use Planning with Energy Transmission network? (as per Land Use & Transport)
- 47 solar farms permitted up to 2019 with a potential capacity for 408MW of electricity National target 1.5GW by 2030
- No planning guidelines for Solar farms. No planning guidelines on offshore Windfarms
- Should there be guidelines for Renewable Energy Infrastructure?
- Management and contracting procedures need review to ensure good governance and oversight and efficiencies
- Need Marine Ecology and Energy Engineering expertise in Local Authorities

Integrate Frameworks. Up-date NPF





Planning Condition Appraisal Checklist	
NECESSARY	
1.	Is the condition necessary by virtue of the submitted plans and particulars that will be approved by the permission?
2.	Is the condition attempting to overcome a matter so significant that it might otherwise warrant refusal of permission and/or a fresh application?
3.	Are there significant matters of detail that necessitate formal agreement by way of compliance? Or could the condition specify what is required by the planning authority?
RELEVANT TO PLANNING	
4.	Do the matters, the condition is addressing, relate to proper planning and sustainable development?
5.	Are the matters, a potential condition is being contemplated to address, covered by other statutory codes?
6.	Are there any Section 28 Guidelines that have development management requirements relevant to the development type and conditions being contemplated?
7.	Has the condition had due regard to the EIAR and the matters considered in the EIA?
8.	Has the condition had due regard to the conservation objectives of any relevant European site and is the condition consistent with the AA?
RELEVANT TO THE DEVELOPMENT	
9.	Is the condition directly relevant to the development being permitted?
10.	If using a standard condition, has it been appropriately applied and adapted to reflect the proposal?
PRECISE	
11.	Is the wording of the condition clear and precise?
12.	Does the reason given for the condition accurately describe the purpose of the condition?
13.	Will the condition and its reason be readily understood by all parties and the public?
14.	Where a condition specifies, that matters must be submitted for the written agreement of the planning authority, does the condition clearly how and when agreement must be reached? (e.g. 'prior to the commencement of development', 'prior to the commencement of construction', 'prior to the occupation of units', 'prior to the implementation of the relevant part of the development' etc.)
ENFORCEABLE	
15.	Is the condition sufficiently clear and precise to enable enforcement action be taken, in the event of non-compliance?
16.	Has the developer the legal authority to comply with the terms of the condition?
REASONABLE	
17.	Given the nature and scale of the development is the condition reasonable?
18.	Will the condition significantly alter the proposed development in such a way as to deny interested parties the opportunity to comment on aspects that may have a significant impact on them and that should be assessed as part of the planning application?
19.	Would the matter that the condition is addressing be better addressed by requiring the applicant to submit further information or revised plans?
20.	Does the applicant have sufficient interest in any lands that a particular condition relates to if outside the submitted site boundaries?



Conditions & Compliances



Rialtas na hÉireann
Government of Ireland

Draft South Coast Designated Maritime Area Plan for Offshore Renewable Energy

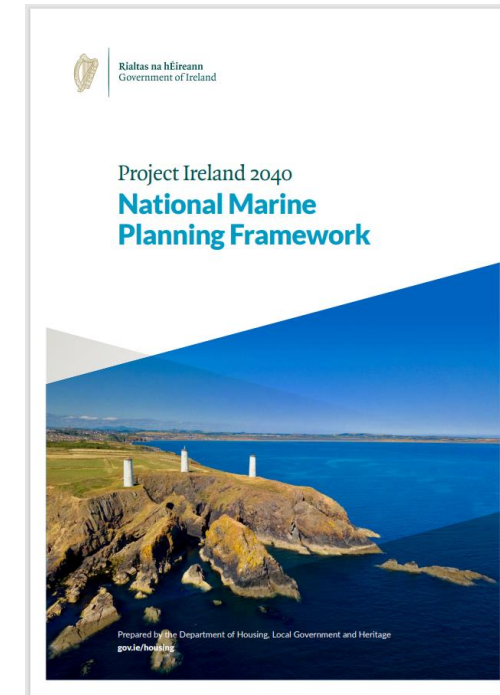
3 May 2024



**Adopted MAP will provide context
for on shore infrastructural requirements**

On and off-shore proposals

- Co-existence: “Proposals should demonstrate that they have considered how to optimise the use of space, including through consideration of opportunities for co-existence and co-operation with other activities, enhancing other activities where appropriate.”
- Infrastructure: “Appropriate land-based infrastructure which facilitates marine activity (and vice versa) should be supported. Proposals for appropriate infrastructure that facilitates the diversification or regeneration of marine industries should be supported.”



Thank You

