Muirchumhacht
Seapower Ltd

Consultation on the offshore renewable energy (ORE) Future Framework Policy Statement

Response of Muirchumhacht Seapower Ltd

Feb 2024

Contents

List of Tables

List of Figures

1 Summary

We feel that the Policy as outlined in the Consultation document is significantly under-ambitious in a way that will have negative outcomes for the State and its people from sustainability, economic, and social perspectives.

Ireland has a responsibility to its European colleague nations to responsibly maximise the use of its extensive marine resources to assist in the meeting the decarbonisation targets of the EU.

Ireland must not let competitor nations capture the leadership of technology development or the international capital necessary to support projects of the scale needed to achieve a full leveraging of the North West Atlantic region offshore wind opportunity.

A state policy that does not seize the employment, education, and innovation opportunities to re-invigorate the communities of the Irish West coast would be seen as a missed opportunity of a vast scale.

The Policy must not confuse state planning and strategic goals with the state attempting to become an arbiter of offshore renewable energy (ORE) technologies and energy transfer feasibility. A strategic role for the state should take the form of that adopted by our Scottish and French neighbours: setting targets of scale, identifying the largest number of areas suited to development and assessing the technical experience and financial resources available to the competitors in a tender for options process.

The challenge of ORE is critical to avoiding devastating climate change impacts well within our own lifetimes. The Policy determined now must take into account the critical nature of what confronts not just Ireland, but the continent of Europe and beyond.

2 Key Priorities for Ireland ORE Policy

We identify three key priorities that must be addressed by a strong Future Framework Policy:

- The Priority of using our resources at adequate scale
- The Priority of Urgency
- The Priority to recognise that the ORE sector is internationally competitive and the access to cost-efficient markets not inexhaustible.
- The Resources-Demand Driven Priority
- Public Acceptance Priorities
- Technical Environment Priority

2.1 Priority of Using Our Resources Responsibly.

We must recognise that in the matter of offshore wind, Ireland cannot present itself as a small country, on the fringes of a large economic block. In the context of ORE, Ireland's geography places it at the centre of Europe's transition to the low carbon future.

2.1.1 The Exclusive Economic Zones of Europe

National ORE targets up to 2050 of 5GW of ORE by 2030, 20GW by 2040; and at least 37GW in total by 2050 are not ambitious at all. In considering any ORE targets for Ireland it must be noted that Ireland has a responsibility to the rest of the EU to drive decarbonisation of the European energy sector.

Irish Exclusive Economic Zone (EEZ) waters are some of the largest in the EU. It is third only to Spain and Portugal which have EEZs around the Azores, and Madeira (Portugal) and The Canary Islands (Spain).

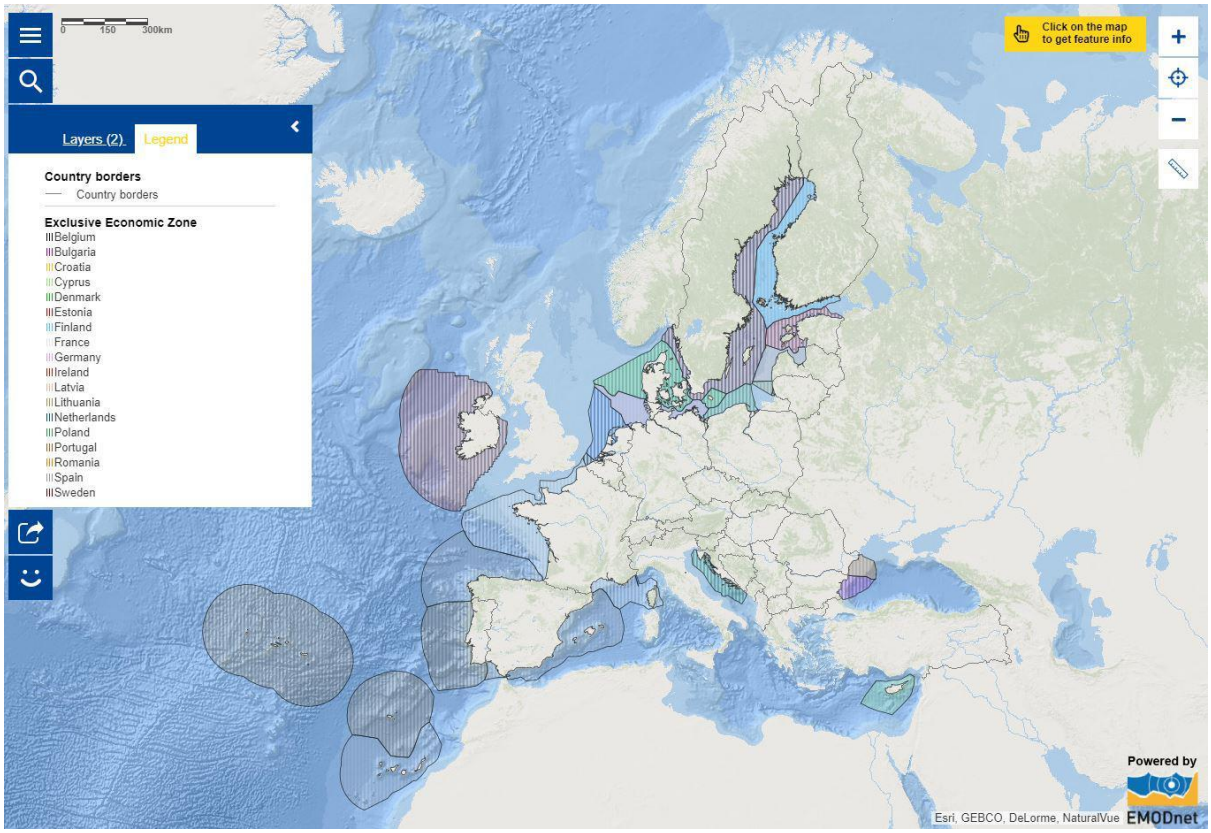


Figure 1: Map of EU Countries Exclusive Economic Zones

Table 1: North West Atlantic Region countries by EEZ km2

Country	EEZ km2
Spain	1,039,233
Portugal	1,727,408
Ireland	880,000
France (Metropolitan)	371,096
Norway*	819,620
UK* (European) excluding Scotland	311,361
Scotland[1]	462,315
Netherlands	154,011
Denmark	105,000
Germany	32,982

*Non-EU countries

Ireland therefore has a significant responsibility to take a leading role in offshore renewables which the rest of the EU need to drive their own decarbonisation.

2.1.2 Comparison of ORE Targets in North Atlantic Region.

We can see in Table 1 that there is a spread of ORE roll-out policy ambition across the North West Atlantic Region[2]. Even in absolute terms (ignoring the scale of the offshore opportunity) Ireland does not rank well. It's 2030 ambitions are the lowest bar Norway's. This is misleading however. Norway has already announced auctions for options on 3GW of ORE. Equinor, the Norwegian State Energy Company has plans for 12-16GW of ORE by 2030.

Table 2: Offshore Ambition of NWAR Governments

Country Policy Area	2030	2040	2050
UK (excl Scotland)	39		
Scotland	27[3]		
Germany	26.4		66
Netherlands	21	50	72
France	8	18	40
Belgium*	6	8	8
Denmark	5.3		35
Norway	3-16	30	
Ireland	4.5	20	37

*We assume that post 2040 there will be no available sites in Belgium.

The trend clearly shows that **Ireland's policy as it stands will be a laggard in ORE**. In this scenario we will therefore miss out on opportunities to benefit from innovation development and training. We will be a technology client rather than a provider. We will

[1] https://marine.gov.scot/data/facts-and-figures-about-scotlands-sea-area-coastline-length-sea-area-sq-kms
[2] We will include the North Sea in this designation.
[3] https://www.crownestatescotland.com/news/three-scotwind-clearing-project-agreements-confirmed

also presumably be presuming that project finance of greater than €60bn will be available in the sector for Irish projects. This while over €600bn will have been committed elsewhere in the region.

Table 3 compares policy ambition of the Northern West Atlantic region countries with the natural resources available.

Table 3: NWAR Governments Ambitions v Resource

Country	EEZ km2	Km2 per GW 2030	Km2 per GW 2050
Germany	32,982	1,249	500
Netherlands	154,011	7,334	2,139
Denmark	105000	8,140	3,000
UK (European) excl Scotland	311,361	7,984	7,984
France Métropolitaine	371,096	46,387	9,277
Norway	819,620	273,207	16,392
Scotland	462,315	9,715	[not stated]
Ireland	880,000	195,556	23,784

It can be presumed that Scotland, with 27 GW optioned already, will have a high ORE concentration 2040-50 but this has not been put into policy yet.

Proposed Priority Point 1:

At this moment, Irish policy therefore does not to match its offshore wind ambition to the size of its EEZ and the scale of its responsibility to decarbonise the EU's energy system.

2.1.1 The Priority of Time Sensitivity

The level of ambition of the policy required demands an awareness of the critical importance of time for two reasons: the demands made by the degree of climate change urgency, and the demands of international competition.

2.1.1.1 Climate change urgency, Climate Tipping Points (CTP)

Current global warming of ~1.1°C above pre-industrial already lies within the lower end of five uncertainty ranges. Six CTPs become likely (with a further four possible) within the Paris Agreement range of 1.5 to <2°C warming, including collapse of the Greenland and West Antarctic ice sheets, die-off of low-latitude coral reefs, and widespread abrupt permafrost thaw.[4]

Copernicus Climate Change Service (C3S) predicts that if the 30-tear warming trend to Jan 2024 continues, **global warming will reach 1.5°C warming by 2033.**

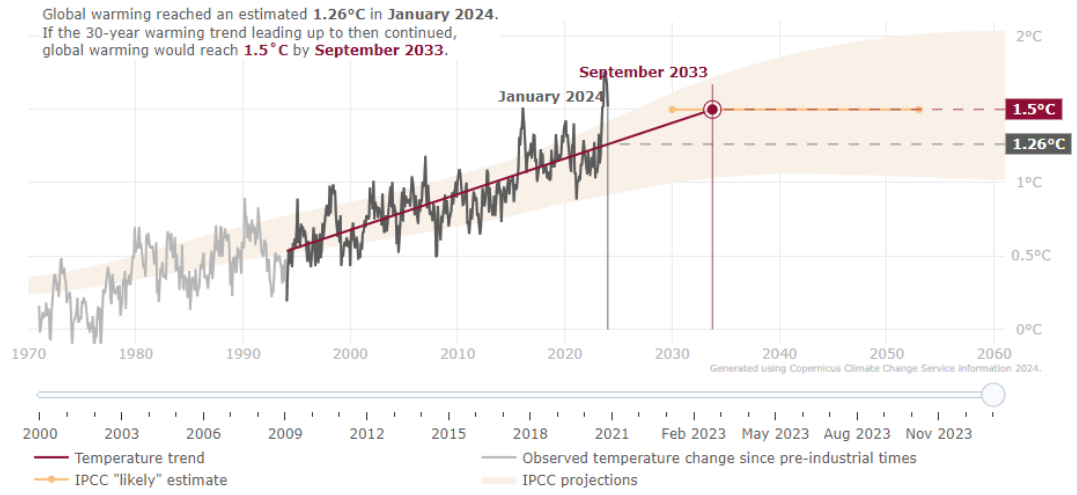


Figure 2 Global Warming Trends

[Source: Copernicus Climate Change Service (C3S)[5]

There is in an imperative on those deciding national policy on climate change avoidance and reduction measures to expedite decision making and planning with the necessary urgency. An existential crisis demands a critical response.

[4] David I. Armstrong McKay et al. ,'Exceeding 1.5°C global warming could trigger multiple climate tipping points' .Science 377,(2022). DOI:10.1126/science.abn7950

[5] https://cds.climate.copernicus.eu/cdsapp#!/software/app-c3s-global-temperature-trend-monitor?tab=app accessed 20.02.24

2.1.1.2 Level of danger from CTPs not prioritised.

It does not appear that the Future Framework is being determined with the level of urgency that the climate change predicament Irish citizens face demands. Back loading the roll out of ORW to post 2030 or even post 2040 cannot be defended in the current environment. Setting such distant targets for future political generations to achieve would be an abandonment of our responsibility.

Proposed Priority Point 2:

The effects of the rapidly approaching climate change tipping points could well result in economic and social disruption. This will degrade the necessary technical and financial structures that are required to enable ORW projects of scale. Policy should reflect this level of urgency.

3 Discussion of the level of opportunity

Electricity is readily produced offshore, and the sector has been well established (we discuss the current state of technology readiness below). There are 64GW of wind installed globally in 2023. The Global Wind Energy Council predicts an additional 380GW by 2033[6]. As the level of installation increases, so do technical expertise and cost efficiencies.

There are a large number of well-established players supplying technology into the ORE sector globally. EU based offshore turbine manufacturers include Nordex, Siemens, Vestas and Alstrom. Norway's Equinor has recently opened the world's largest floating ORE project at 88MW.

We expect that the 5 GW which will be ORE that are needed to help meet the 80% target of Renewable Energy in Ireland by 2030 will be mainly located on the South and East Coast of Ireland where there is high energy demand. ORESS1 has approved 3GW to go to An Bord Pleanála and we expect that there is 700MW that will form part of ORESS2. The 'Policy Statement on the Framework for Phase Two Offshore Wind'4 from October 2023, also states that Phase 2 projects will be authorised according to expected grid capacity, but this will be in the region of 1.3MW to achieve the 2030 target of 80%.

The wind resources on the West Coast are vastly superior to elsewhere in the EU. Capacity factors for offshore wind are expected to be close to 50% and above (ESB, 2023)[7].

Wind potential in Ireland far exceeds the expected level of demand that this country will have. The issue that will face Ireland post-electrification of the domestic demand for fossil

[6] https://gwec.net/gwecs-global-offshore-wind-report-2023/#:~:text=The%208.8%20GW%20of%20new,global%20cumulative%20offshore%20wind%20installations.
[77] https://www.energyireland.ie/esb-stands-ready-to-deliver-renewable-offshore-wind-energy-for-ireland/#:~:text=Offshore%20wind%20farms%20in%20Ireland,of%20approximately%2050%20per%20cent.

fuel replacement (kerosene for heating and petrol and diesel for small vehicle transport) will largely be one of finding most efficient means of energy export.

The Eirgrid, 2023, 'Tomorrow's Energy Scenarios 2023 Consultation Report'[8] states that offshore wind will present the following opportunities:

- Domestic and international focus
- More interconnection strong electricity exports at times
- High demand side flexibility
- Rapidly decarbonising the power system

As a representative organisation with three >1GW offshore projects lodged with MARA, we very much agree that the potential for ORE in Ireland far exceeds the demand of this country in even the most optimistic scenarios of island-based technological developments. These opportunities have been recognised by both Norway and Scotland which have similar natural resources.

3.1 German Hydrogen Demand

Germany faces the challenge of decarbonizing its economy while maintaining its competitiveness. To achieve this goal, hydrogen is emerging as a key energy carrier, offering a clean and versatile alternative to fossil fuels. Offshore wind, with its vast potential and consistent output, holds immense promise for powering hydrogen production and meeting Germany's industrial energy demand[9].

The total volume of natural gas imported into Germany in 2022 was 1,449 TWh[10]. To decarbonize this will need to be replaced by a zero-carbon fuel.

In 2045, hydrogen demand in Germany will be 265 TWh in total. Some 36% of this hydrogen will be produced in Germany. The remaining hydrogen will be imported[11]. This means that Germany will require 170TWh of hydrogen imports at a minimum.

The potential ORE installation at current technological stages of development off the Western Coast is 80GW. This will produce approximately 315TWh of energy. Since the entire gas requirement in Ireland currently is 60TWh (and given that it will decline with increased building efficiency and heating electrification over time) this represents a significant export

[8] https://consult.eirgrid.ie/en/consultation/tomorrows-energy-scenarios-2023-consultation-report
[9] https://www.reuters.com/business/energy/germanys-core-network-hydrogen-fuel-cost-20-bln-euros-by-2032-fnb-gas-chairman-2023-11-14/
[10] https://www.trade.gov/country-commercial-guides/germany-energy
[11] https://static.agora-energiewende.de/fileadmin/Projekte/2021/2021_04_KNDE45/A-EW_213_KNDE2045_Summary_EN_WEB.pdf

opportunity. We discuss in Section below how this opportunity has been identified by our international competitors.

The roll out of ORE on the West Coast needs to be an order of magnitude greater than the Island-centric opportunity mentioned above, and that this opportunity should be seen as taking the form of both electrical and gas interconnection.

We believe that Ireland should raise its ambitions to plan for an additional 20GW of installed ORE per decade reaching a *minimum* of 47GW by 2050. This will require an optioning process taking place within the next three to six years so as to allow the necessary partnerships to be put in place.

47GW ORE off the West Coast would produce approximately 73 TWh[12] of exportable H2 or 43% of Germany's predicted H2 import requirement. The state would be predicated to be a major beneficiary of the development of such an export market.

A priority of the Future Framework should therefore be to enable this scale of development within the timeframe required by both the climate emergency and by the urgency of seizing the potential market. We discuss this timeframe in section. Not preparing for this opportunity could be seen as committing a policy blunder of gargantuan proportions.

Proposed Priority Point 3:

To achieve the level of ORE needed to meet the level of demand during the next decade will require policy action now. Scotland has already optioned 20GW – including to Irish based companies. The ORE boat is casting anchor and we are in danger of missing it.

3.2 Projected Costs

The US National Renewable Energy Laboratory predicts[13] a cost of $53/MWh [€49/MWh] in 2035 for fixed-bottom offshore wind energy and $64/MWh [€60/MWh] in 2035 for floating offshore wind energy (FLOW).

European analysis suggests a similar picture where offshore wind will see significant cost reductions by 2030. The European Technology and Innovation Platform on Wind Energy predicts that bottom-fixed offshore wind costs will fall by 44% to 48€/MWh and floating offshore wind costs will fall by 65% to 64€/MWh.

At the lower LCOE levels likely to pertain post 2040, it should not be envisaged that the State would be required to subsidise or underpin the offshore wind energy industry. As set out in the draft Framework, the state would be a beneficiary from the projects through license fees and taxes.

[12] We will assume that Ireland itself will require 60TWh of gas
[13] https://www.nrel.gov/docs/fy23osti/81819.pdf

We do not agree with analytical approaches that compare energy cost scenarios that compare fossil fuel to renewables. The cost of continued fossil fuel use at scale beyond 2035 is not financial – rather it is existential. A policy that was based in any way on the significant use of fossil fuels beyond 2035 would be a head in the sands policy that betrayed the future.

Cost comparisons between forms of renewable generation and the means by which renewably generated energy can be transported from sites of production to sites of consumption are all that are relevant (Section **Error! Reference source not found.**).

3.3 The Export Opportunity: International Competition

As we saw in Section 3.1 there is a considerable demand for a more ambitious policy for ORE – particularly in relation to West Coast ORE to supply the German demand for Hydrogen. The market to meet this demand represents a competitive environment. There will be a number of nations seeking to capitalise on meeting it.

3.3.1 Norway

An RWE and Equinor partnership is currently planning to source hydrogen from Equinor in Norway and transport it to Germany via a hydrogen pipeline. Construction of this pipeline is currently being investigated by Gassco, Equinor and other third parties. The intention is that, by the year 2038, up to 10 gigawatts of blue hydrogen will be produced in Norway and transported via a pipeline to Germany.

The 'blue' hydrogen within this project is possible seen as proof of concept for future green hydrogen production and export.

3.3.2 Scotland

As seen in Section 2.1.2 above, Scotland has a highly ambitious ORE policy. There are 20 ScotWind projects amounting to a total of 27 GW which now have sea-bed option agreements confirmed[14]. Much of this is expected to meet the UK's demand for energy sector electrification. However, hydrogen for export is a core element of Scottish ORE policy.

*'Hydrogen produced in Scotland could play a significant role in supplying these growing, local and overseas markets. Our **5 GW by 2030** renewable and low-carbon hydrogen ambition can be translated as approximately 0.45 Mt of hydrogen produced annually for both domestic and international use… the Scottish Hydrogen Assessment, completed in 2020, estimated that by 2045 approximately 3.3 Mt (**126 TWh**) of renewable hydrogen could*

[14] https://www.crownestatescotland.com/news/three-scotwind-clearing-project-agreements-confirmed

be produced in Scotland with approximately 2.5 Mt (94 TWh) exported to the UK ***and other European markets annually'***[15] [our emphasis]

3.3.3 Iberia

Germany is also regularly reported to be a key off taker from the H2Med pipeline partnership between France, Spain, and Portugal[16]. The H2Med is set to enter operation by 2030 carrying hydrogen produced using renewables. It is expected to transport up to 66TWh green hydrogen a year.

3.3.4 North Africa

Morocco's hydrogen strategy, published in 2021, expects 4TWh (around 121,000 tonnes) of domestic H2 demand and an export market of 10TWh (around 303,000 tonnes) by 2030. The Algerian government has said it aims to supply 10% of Europe's hydrogen demand by 2040, with plans under way for a subsea pipeline transporting H2 to Italy via neighbouring North African country Tunisia[17].

Proposed Priority Point 4:

Ireland will have quite a number of countries to compete with in the hydrogen production market post 2030. It is essential that the Future Framework Policy being prepared today sends out the message that Ireland is ambitious enough to participate as a key player in this market. Failure to lay out a feasible and clear pathway to production of H2 for export at scale will relegate the country to an 'also ran' and could be seen by future generations as a surrendering of the national interest.

[15] https://www.gov.scot/publications/hydrogen-action-plan/pages/6/
[16] https://www.euronews.com/2023/01/23/germany-joins-green-hydrogen-pipeline-partnership-with-france-spain-and-portugal
[17] https://www.hydrogeninsight.com/production/analysis-europe-courts-green-hydrogen-supply-from-north-africa-but-when-can-the-region-deliver-/2-1-1598009

4 Resources and Demand driven Scenario.

We suggest therefore that the Future Framework include commentary on the scale of the export potential (27GW by 2040, 47GW by 2050) and the urgency of meeting it as a climate change avoidance priority. We call this the **Resources and Demand driven Scenario** which takes fully into account the scale of the state's marine resources, the demand to act now to avoid climate catastrophe, the scale of the market, and the need to move now before the market and the necessary investment capital is captured by our competitors.

4.1.1 Renewable Energy Transmission by Pipeline

We do not however envisage that the majority of this energy be exported via cable interconnector.

While transmission of energy by cable has an efficiency advantage over transmission via piped gas, it is more costly per unit of energy. Recent research from the US projects it is significantly more costly[18].

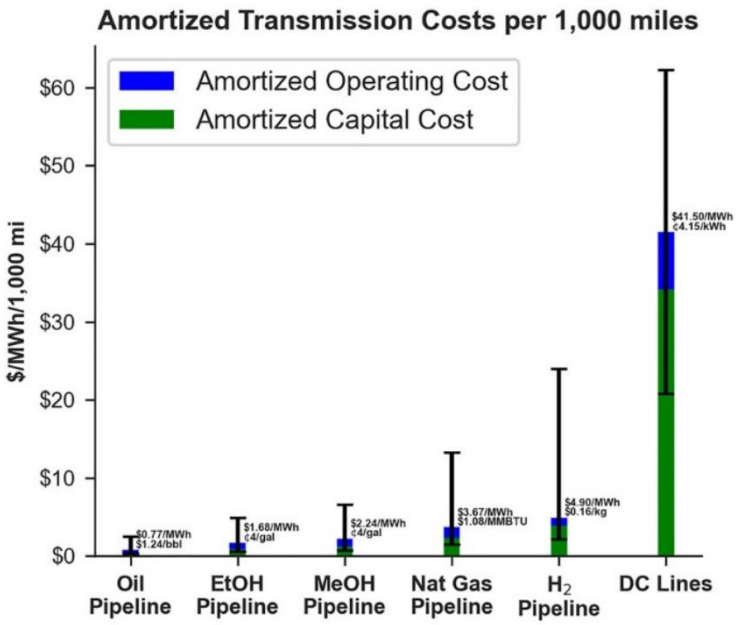


Figure 3: Energy Transmission Costs per 1,000 miles.

The H2Med project envisages 700km of hydrogen pipeline, 400km of which will be undersea between Barcelona and Marseille. This is projected to cost €2.5bn. A proposed Scottish North Sea to Emden Germany pipeline would be 800km long and is estimated to cost €3bn.

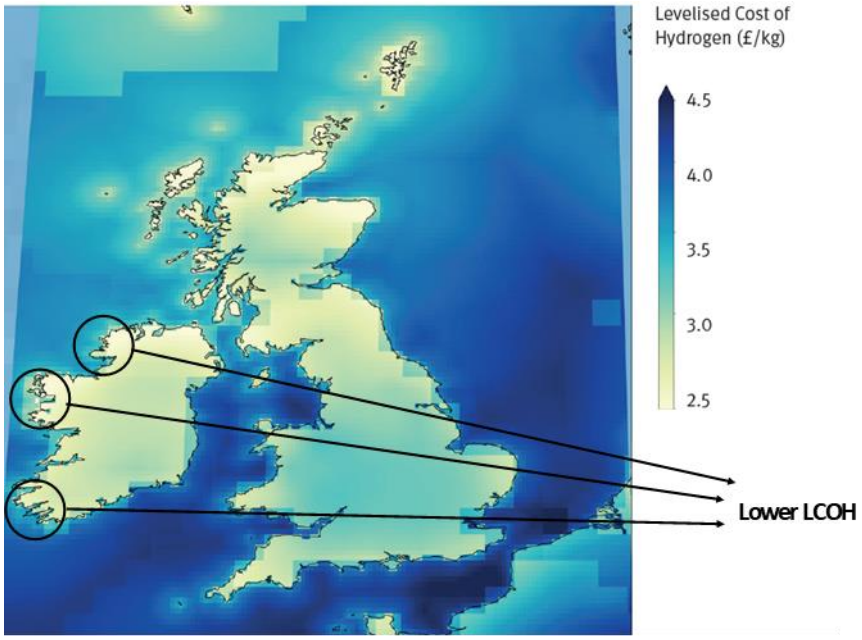
Ireland already has an infrastructure suited to conversion to energy export in the form of the existing gas grid. The gas grid in the UK is already being prepared for a 20% blending of hydrogen (H2) and natural gas (NG) in the UK grid[19]. This will require Ireland's grid to be prepared to accept the same blending ratio. It is our analysis that the gas grid in Ireland will be likely upgraded to accept blends of much higher ratios of H2:NG within this process. It is economically feasible

[18] DeSantis D, James BD, Houchins C, Saur G, Lyubovsky M. 'Cost of long-distance energy transmission by different carriers'. iScience. 2021 Nov 22;24(12):103495. doi: https://doi.org/10.1016%2Fj.isci.2021.103495
[19] https://assets.publishing.service.gov.uk/media/6579c4c1254aaa000d050c78/hydrogen-blending-into-gb-gas-distribution-networks-government-response.pdf

to build out a parallel H2 only gas grid making use of the real estate currently held by Gas Networks Ireland which are favourable to the creation of such a H2 only network.

Ireland is the only EU country that can supply H2 directly into the gas grid from the resource rich North Atlantic. It is therefore vital that policy recognises the level of opportunity this energy demand in the Netherlands and Germany and puts in place educational, infrastructural, and policy foundations to enable us to meet this market demand.

The Cost of hydrogen from ORE production (LCOH) in the West of Ireland (in particular near the islands) will be lower than most other regions throughout the EU.



Source: https://www.imperial.ac.uk/energy-futures-lab/reports/briefing-papers/paper-12/

Suggested Priority Point 5:

The Level of the opportunity for the Irish West Coast to produce hydrogen at scale economically is such that it will be hard to justify it being left out of the Future Framework as a priority.

4.2 Observations on the proposed 2GW H2 Proposal

We believe that the 2GW of non-grid limited offshore wind capacity be procured by 2030 must be seen as a policy minimum. It should be more than trebled. The UK has planned for 10GW of hydrogen production and there is no reason why Ireland should not be equally far sighted.

It is widely known that the generation arm of the ESB is keen on pursuing a 2GW H2 project off the coast of Clare. As a state company it could be seen as likely to find a positive policy view of its proposals. However, it should be noted that the ESB is an electricity generation

and distribution focussed company. As such its corporate attention is certain not to be focussed on the hydrogen sector. It would not surprise any in the renewable sector if the ESB project was not pursued with any great urgency.

Putting all the H2 policy eggs in one project basket would be ill advised. It would be wiser to set a wider priority for multiple H2 non electricity grid projects amounting to 6 GW H2 by 2030 (thereby matching Scotland). This would hedge the opportunity and would also diversify the possible partnerships that could include other national and international players. To enable this the ORE policy framework should enable other (non-state) projects to commence the necessary works now to match this target. This would mean increasing the areas identified as open to development, as well as looking at areas where a route to market is viable.

We propose that the Future Framework Policy should prioritise offshore wind to hydrogen production projects on the West and Southwest Coasts where the electricity grid is weak and the gas grid strong.

The Framework policy should recognise that these areas must be included in the DMAPs now so that the necessary partnerships, plans, and public consultations be commenced now.

Suggested Priority Point 6:

The H2 Policy should be amended to diversify the options. Optioning one project led by one non-H2 focussed company would be a demonstration of lack of determination by the state. Policy should show a determination to option 6GW of West Coast H2 across a diverse range of project consortia.

5 Public Acceptance Priority

Any proposal to improve, extend or otherwise change the existing gas grid in Ireland needs to take into account past experience of public acceptance. See for example Shell2Sea. On the face of it changing from Natural Gas to green hydrogen should represent an improved likelihood in public acceptance. This is likely not to be the case. Electricity grid upgrades to facilitate renewable energy generation have a history of popular opposition. The experience of the Midlands to UK Onshore Wind and interconnector proposals on the 2000's are a warning against complacency. The future framework policy will need to take into account this history of public acceptance failures in the energy sector.

We would suggest that the future framework policy introduces a prioritisation of defined community benefit and participation.

From our more than 10 years' work with sustainability focussed community groups across the Western region, we are certain that there is an active appetite for ORE at scale. Our own

community consultation work in South Kerry, Galway and Mayo has determined that once local public participation in the projects is facilitated, there is overwhelming local support.

We believe that Future Framework policy should be informed by this reality, and see how the jobs, education and sustainability ambitions of local communities should be a driver of policy. We note that a community benefit scheme that is over-controlled by either central government, its intermediaries or the internation development companies will not win over the local communities. The fisher and tourism stakeholders will not be allies to a benefit scheme. They participate in and are allies with community-initiated projects.

Suggested Priority Point 7:

Policy should reflect the key issue of the level of public benefit from projects. An approach to ORE that focussed on locally centred opportunities (long term employment opportunity and the autonomous direct financing of community sustainability works) would demonstrate that state policy should be at the service of the public and not an imposition from above.

6 Technical Priorities.

We note that the consultation document says that the SEAI is preparing a technology roadmap. We also note that the roadmap will follow the Future Framework, therefore it has not been possible to discuss it in our response. We do not understand what value this would have. We note that the SEAI is not an authority on offshore wind technologies.

Each project that has been lodged with MARA already has within their partnerships offshore wind technology experts experienced carrying out projects at scale. These developers and technology providers have already identified the feasibility of their proposed projects – they do not need to be validated by the State.

6.1 State as the Strategist not as the Auditor.

It is presumed that the Irish state will not be the primary driver of the offshore projects. Instead, will it not be the licencing body rather than taking on the role of being the developer itself. This is the case with the existing offshore projects off the East and South Coasts. We do not see any reason therefore that the state would be involved in the actions described on pages 15-16 of the Consultation Document.

Figure 4: Deepstar Platform Suitability for Irish Atlantic Waters

The West and South Coasts are already determined to be suitable for Floating offshore technology by experts in this field.

Odfjell Oceanwind's floating wind foundation Deepsea Star is being deployed in the GoliatVIND wind park located in the Barents Sea. This will install three to five floating wind units, each carrying a 15MW wind turbine generator, with a predicted operational startup in 2026.

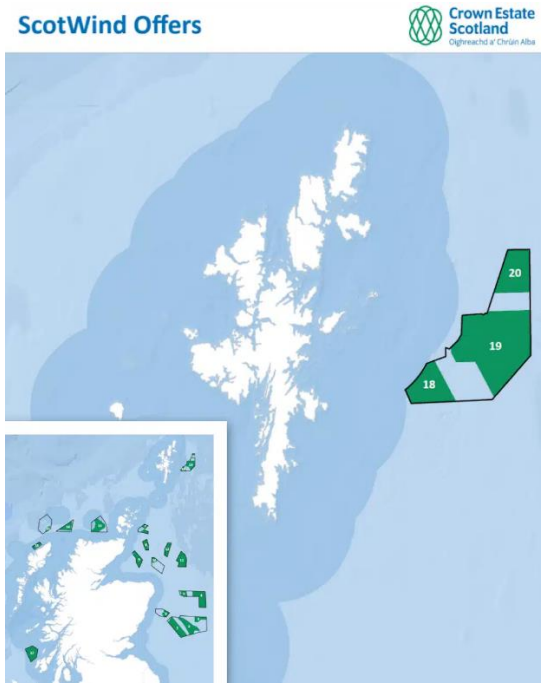
They have identified sites off the Irish South and West Coasts as suitable for deployment of Deepstar Floating Platforms for large Wind Turbines.

Three ORE projects generating 2.8GW were offered option agreements for NE1 to the east of Shetland.

The three projects are paying £56m in option fees to the Scottish State demonstrating the developers' confidence in the projects' technical feasibility. This brings the amount the Scottish State has received from granting options to 20 projects to £755m.

The waters in the North Sea are 100m deep and the projects will be FLOW. The climatic conditions of the sites would be similar to those of the West Atlantic.

In what must be seen as a 'wake-up call' for the Irish State, it is astounding to see that two of these Scottish projects will be led by Irish companies: Mainstream and also the ESB.



Suggested Priority Point 8

The ORE Future Framework Policy should lay out what strategically will benefit and protect the interests of the State most in the field. It should not become a protagonist in determining the answers to technology questions which project developers and finance partners have already determined.

6.2 State as beneficiary not as subsidiser.

In the case of the West Coast Export oriented projects, the state should not be seen as a subsidiser of energy projects by artificially supporting the cost of energy. Therefore, the ORESS should not be extended beyond the current projects. The State should be aware that it will be a beneficiary from ORE through option licencing fees and post energisation annual fees. It should insist that all companies that control the profits from Irish ORE are registered in Ireland and will pay corporate tax on their profits here.

Suggested Priority Point 9

The West Coast ORE Sector should not be confused with the current electricity generation market. It will not require ORESS subsidies. It will instead through fees and taxes pay the state revenues in excess of €5 billion per year.

6.3 Twin Platform Approach: Cabe and Pipeline

It is our understanding from consultation with community and financial partners that Irish energy policy needs to be clear about how offshore wind energy needs to evolve with two platforms for decarbonisation:

1. East Coast ORE (~7-8GW) meeting the on-island demand with some interconnection to facilitate balance of supply with UK and France.

2. West Coast ORE (~80GW) meeting EU demand for hydrogen exported through an upgraded gas network with injection points at Galway, Mayo, and Cork through Scotland.

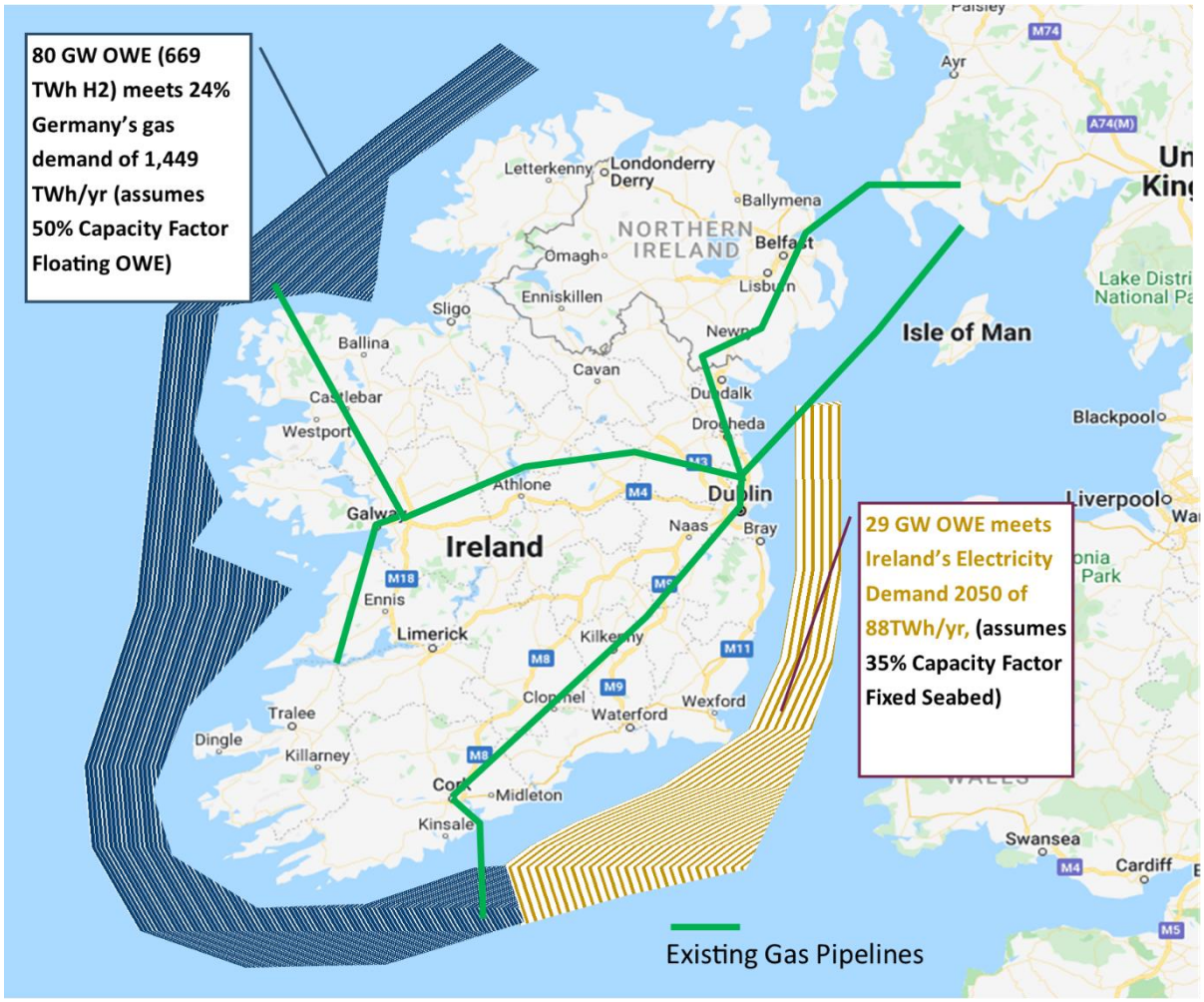


Figure 5: Twin Export Opportunity

7 Conclusion

The technology is ready: there is now a large and rapidly growing European ORE sector which includes FLOW. The extension of planned optioning for the Irish West Coast must be seen as a national priority. If this is not done now, there will be a capture of available capital supply chains and experienced project partners by other countries which will amount to a significant national failure that will be hard to justify.

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8 Appendix:

Questions in Consultation Document as they refer to sections this submission.

1(a). Has this section adequately identified the general key priorities for ORE delivery in Ireland? Are there additional priorities that should be integrated into the holistic, plan-led approach?	General Question that is addressed by all sections of this report – specifically the Suggested Priority Points 1-9
1(b). Has each key priority been adequately described and considered all relevant components?	General Question that is addressed by all sections of this report – specifically the Suggested Priority Points 1-9
1(c). How best should the 2GW of non-grid limited offshore wind capacity be procured?	Section 4.2
1(d). What are your views on the design parameters for the successor scheme to ORESS, what else should/should not be considered?	Section 6.1 and 6.2
1(e). What frameworks and/or supports are required for alternate routes to market such as CPPAs, Power-to-X projects, interconnector-hybrid projects and export projects?	Section 6.2
1(f). What additional capacities and responsibilities should be held by industry in the context of the plan-led approach?	Section 6.1
1(g). How can Government facilitate a more comprehensive and streamlined engagement process with developers to ensure national ORE targets are delivered?	Section 5
2(a). What grid infrastructure should be of particular focus in facilitating the build-out of capacity to support ORE generation targets?	Section 6.3
4(b). Are you aware of initiatives in other jurisdictions or at a European level that would be relevant to Ireland's ambition of building a sustainable skills and workforce pipeline for offshore wind?	Section 3.3