

Draft ORE Future Framework Policy Statement

Executive Summary

Overarching Policy Alignment: Hydrogen Ireland is concerned that policy relating to offshore wind and renewable hydrogen is not being developed in a mutually reinforcing, coherent, and timely manner. The broader policy framework must include clear milestones, oversight for governance arrangements, and the timely application of EU policy to create investor certainty to develop an enduring ORE and hydrogen industry in Ireland.

We are aware that consideration is being given to the and auction of additional seabed/MACs through a competitive, qualitative process. We welcome further consideration of this, ensuring that the timing of any change supports the delivery of climate action targets. We note, however, that no timeline has been given for when this will occur or what models are being considered. The timely allocation of seabed is a crucial step – it would allow projects to progress and develop a route to market for auctions – be they grid or non-grid connected.

Route to Market: A key focus on demand routes to market for non-grid capacity is required. Hydrogen Ireland is concerned about delays in procuring the 2 GW of non-grid limited offshore wind capacity. Clarity on policy enablers relating to a demand route to market for non-grid capacity and the stated 2 GW target is required. Hydrogen production supports must form part of the design framework for the ORESS successor, to ensure that renewable hydrogen can be derived from offshore wind from the early to mid-2030s. In the short timeframe available to develop the ORESS successor, we encourage DECC to develop a work programme and delivery timeline to consult and seek State Aid approval, ensuring that it can accommodate hydrogen production in the design. An Industrialisation of Hydrogen Strategy, akin to the Industrialisation Strategy for OSW, should be prioritised in order to assist with scaling the industry.

SEAI Technology Roadmap: The SEAI Technology Roadmap will detail key ORE technologies including energy storage mechanisms, hydrogen electrolysis and related technology. Once the Technology Roadmap is published, an opportunity for industry engagement should be accommodated given likely across the suite of renewable technologies.

Marine Spatial Planning: Action 5 of the draft Future Framework Policy Statement provides for the development of a future DMAP Roadmap. However, no timeline is laid down for finalisation of such plans or commitment provided to deliver all such spatial plans in tandem and in a manner which facilitates both grid and hydrogen offtake.

EU Acceleration Provisions: The draft Future Framework Policy Statement makes no reference to EU acceleration provisions recently adopted pursuant to the third revision to the Renewable Energy Directive (RED). Such acceleration provisions should be fully assessed with a view to applying the same in a proactive and all-encompassing manner and provided for thereafter in the final Policy Statement.

Commentary on Workstreams: The potential for zero carbon renewable hydrogen to replace fossil and other greenhouse gas emitting fuels, to assist in meeting 2030 and 2040 climate targets, is potentially understated in WS3. The proposed use of less than 2TWh hydrogen annually in the all-island power system is not consistent with its “important role in the electricity sector” for decarbonising dispatchable generation and for large scale storage of electricity as called out in the National Hydrogen Strategy. Hydrogen Ireland cautions the risk of underestimating the level of hydrogen demand and storage required to support dispatchable generation should too short a timeframe be examined. Action 20 be expanded to incorporate an assessment of the role of hydrogen in power generation. Powergen can also act as an early, anchor offtaker for hydrogen.

Introduction

Hydrogen Ireland welcomes the opportunity to respond to this important consultation on the offshore renewable energy (ORE) Future Framework Policy Statement ('draft Future Framework Policy Statement') to deliver the State's current long-term ORE targets namely, 20 GW by 2040 and at least 37 GW by 2050. Hydrogen Ireland aims to promote the role of hydrogen and fuel cells to enable them to become key components of our future low carbon economy on the island of Ireland. The membership of Hydrogen Ireland includes prospective producers, consumers and transporters of hydrogen on an all-island basis.

The economic analysis accompanying the draft Policy Statement underlines the potential for surplus electricity, energy and green products and services specially through increased interconnection and renewable hydrogen and suggests that gross value added (GVA) could sum to €69 billion over the lifetime of projects by 2060.

The economic opportunity associated with Ireland's vast offshore resource, has already been underlined in clear terms in the Department of Enterprise, Trade and Employment (DETE) *White Paper on Enterprise 2022 – 2030*, which notes:

'The scale of our offshore wind potential, when coupled with hydrogen production, offers a 'once in a century' industrial development opportunity as well as a high-value export capability. It will not be simple to deliver but with the right policies, and industry buy-in, it has the potential to transform Ireland's economy'.

Offshore renewables will be a significant enabler for Hydrogen in the longer term and will allow hydrogen to develop at scale. This will be of benefit with respect to adding value to electrons, decarbonising energy use, developing regionally balanced growth through innovative industrialisation.

Rapid reductions in greenhouse gas emissions are increasingly required under legally binding international agreements, EU and national legislation. The consultation at hand is particularly timely in light of the recent announcement by the European Commission which recommends a 90% net greenhouse gas emissions (GHG) reduction by 2040 compared to 1990 levels¹.

With regard to the deployment of renewable hydrogen, the draft Policy Statement expressly notes that in order to deliver a functioning energy system and realise Ireland's ambitious targets for ORE, capacity electricity interconnection must increase along with the development of a significant renewable hydrogen economy and new industrial demand opportunities. We recognise and support the action 20 of the Future Framework to assess the viability of transports hydrogen derivatives and export by pipeline by 2040 and would urge that this action is completed in the short term with collaboration with industry. Powergen can also act as an

early, anchor offtaker for hydrogen. Action 20 should be expanded to incorporate an assessment of the role of hydrogen in power generation.

Overarching Policy Alignment

Hydrogen Ireland welcomes the high-level policy commitments referenced in the draft Future Framework Policy Statement. However, we are concerned that policy relating to offshore wind and renewable hydrogen is not being developed in a mutually reinforcing, coherent and timely manner given the broad nature of the questions posed in the consultation document.

Since the publication of the Phase 2 Policy Statement² in March 2023, several significant policy changes have arisen including:

- the delinking of the stated 2 GW target of non-grid capacity from floating offshore wind (FLOW)³,
- removal of express references to renewable hydrogen as regards the 2 GW target as underpinned by the State's legally binding carbon budgets,
- resequencing of ORE delivery phases with no distinct Phase 3 policy and conflicting policy interpretation as to the primary role of renewable hydrogen in the electricity system.

The draft Future Framework Policy Statement therefore provides an opportunity to facilitate a clear pathway to the development of hydrogen at scale, through decisive actions on future directions and intergovernmental dependencies (i.e. develop and initiate the long term, planned approach for Ireland's ORE future) and align with other policies, including the SEAI Technology Roadmap, Offshore Transmission Strategy, and future Designated Maritime Area Plan (DMAP) Roadmap.

The broader policy framework must include clear milestones, clear oversight for governance arrangements and implementation, and the timely application of EU policy to create investor certainty to develop an enduring ORE and hydrogen industry in Ireland.

Route to Market

A key focus on policy enablers focused on demand routes to market for non-grid capacity, with all-inclusive delivery dates detailed in line with the State's ORE targets trajectory to 2030, 2040 and 2050 is thus required. With respect to competition for non-grid limited opportunities we recommend that MACs form the bases of this.

Hydrogen Ireland is concerned of delays in procuring the 2 GW of non-grid limited offshore wind capacity, due to requirement for finalised Designated Maritime Area Plans (DMAPs)

(approved by Government in line with the statutory steps laid down in the Maritime Area Planning Act 2021) and the establishment of a competitive Maritime Area Consent (MAC) process. We welcome further consideration a competitive process, however in the absence of a timeline or an indication of what models are being considered, there is concerned that this could add further delays to the ORE to hydrogen process. The timely allocation of seabed is a crucial step – it would allow projects to progress and develop a route to market for auctions – be they grid or non-grid connected.

It is unclear how action 8 of the draft Future Framework Policy Statement (i.e. *design a competitive process to procure 2 GW of non-grid limited capacity in 2025, to be in development by 2030*), interacts with Action 4 of the National Hydrogen Strategy: *'develop the commercial business models to support the scale up and development of renewable hydrogen including an initial 2 GW of offshore wind from 2030'*. Departmental oversight and governance arrangements for implementation also remains unclear.

As such, clarity on such policy enablers relating to a demand route to market for non-grid capacity and the stated 2 GW target is required given that there now appears to be policy misalignment as regards delivery of this target between the provisions of the draft Future Framework Policy Statement, the National Hydrogen Strategy and the forthcoming Industrial Strategy for Offshore Wind (and which will not definitely address renewable hydrogen in its first iteration). Hydrogen Ireland agrees with recent calls for an Industrial Strategy for Hydrogen, given the economic benefits associated with regionally balanced industrial consumption of hydrogen.

Additionally, as non-grid procured capacity raises novel issues and requires compliance with the provisions of the EU Delegated Acts⁴ which lay down detailed rules on the EU definition of renewable hydrogen (and with regard to direct connection to a renewable power installation), consideration must be given to how this framework interacts with national frameworks in a manner which diverges from existing electricity support schemes (and in the event that a backup grid connection is required to maintain the parasitic load of an electrolyser).

In looking at the role of offtaker in enabling a route to market, it is important to point out that existing supply side/support mechanism, such as the EU Hydrogen Bank, require an offtaker agreement.

A greater level of certainty as regards the DMAP Roadmap, a competitive MAC process and a framework to facilitate demand and offtake is required to deliver non-grid capacity in line with the 2 GW target linked to the State's binding sectoral emission ceilings and corresponding carbon budgets.

Given the potential for CPPAs and alternative routes of market, including the 2GW non-grid target, we would like to stress the importance of delivering enabling policy frameworks, such

as a private wire framework. We would like to highlight the need for the private wire framework to be expedited to support offshore projects, particularly in 2030 and beyond.

Hydrogen Ireland is also concerned about the design scope for the successor framework to ORESS, which must be in place by 2026. According to the Future Framework consultation paper, this successor ORESS will be in place until 2030, with projects deploying from 2033. We believe hydrogen production supports should form part of the design framework for the ORESS successor, to ensure that renewable hydrogen can be derived from offshore wind from the early to mid-2030s. This will be critical to support future carbon budgets. In the short timeframe available to develop the ORESS successor, we encourage DECC to develop a work programme and delivery timeline to consult and seek State Aid approval, ensuring that it can accommodate hydrogen production in the design.

SEAI Technology Roadmap

The SEAI Technology Roadmap (expected to be published in April 2024), will detail key ORE technologies including energy storage mechanisms and hydrogen electrolysis and related technology. Given that this roadmap will effectively inform a range of future policies including the finalised Future Framework Policy Statement and the State's long term ORE targets to 2050, we look forward to the opportunity to review, given the interactions with non-grid routes to market, offtake, state aid processes for same etc.

Whilst action 9 contains a commitment to develop and obtain state aid clearance scheme for successor support scheme to ORESS (due to expire in 2025), to be in operation from 2026-2030, to procure at least 9.5 GW for deployment from 2033, no reference is made to non-grid capacity delivery in this time period, thus limiting the prospects for advancing beyond the stated 2 GW target.

This is of particular relevance in relation to question 4(c) and whether an emphasis should be placed on multi-purpose sites. Whilst the development of multi-purpose sites through the co-location of ORE generation technologies may have merit from a site efficiency perspective, from a policy perspective it is unclear how such a proposal will be aligned with existing policy actions and a suite of policy in development.

For example and following on from the National Policy Statement on Electricity Interconnection published in 2023, an Offshore Transmission Strategy is currently in development and to be updated on a 5-year cycle with a horizon of 2040 ORE delivery ambitions. As the DMAP process will play a significant role in determining precise interconnection requirements including hybrid, multi-purpose, and private wire connections etc, it is not clear how this policy framework will be aligned with the draft Future Framework

Policy Statement and existing policy relating to the development of renewable hubs/clusters etc.

In this regard, the National Hydrogen Strategy contains actions to progress work to support the development of strategic hydrogen clusters and to assess the role that integrated energy parks could play in our future energy system (Actions 6 and 13 respectively). The Strategy further notes that initial clusters could develop in the vicinity of commercial ports given their role in enabling offshore wind and typical proximity to potential large end users (notwithstanding that an updated National Ports Policy will not be in place until 2025).

In light of the above, there is a clear need for policy alignment with regard to marine spatial planning in the form of statutory Designated Maritime Area Plans (DMAPs) and renewable energy clusters/hubs to be developed and supported as per the evolving policy framework and the forthcoming Offshore Transmission Strategy.

With the foregoing in mind and once the Technology Roadmap is finalised and published, an opportunity for industry engagement (and indeed public consultation) should be accommodated given likely implications for project proposals across the suite of renewable technologies.

Marine Spatial Planning

Following the institution of a state-led regime as per the Phase 2 Policy Statement published in March 2023, offshore wind development will only be permissible in offshore renewable energy (ORE) Designated Areas in line with statutory provisions laid down in the Maritime Area Planning Act 2021. While the process of developing a Designated Maritime Area Plan (DMAP) for the South coast and Phase 2 is in process, the finalised and approved DMAP is not expected to be in place until Q3 2024 at the earliest.

Action 5 of the draft Future Framework Policy Statement provides for the development of a future DMAP Roadmap, stating that this: *'roadmap should be produced in accordance with all relevant legislative and regulatory processes and in alignment with technology maturity and offtake'*.

However, no timeline is laid down for finalisation of such plans or commitment provided to deliver all such spatial plans in tandem and in a manner which facilitates both grid and hydrogen offtake. Given the time involved to date as regards the development of the DMAP for the South coast, it is not clear how delivery timelines can be achieved i.e. draft Future Framework Policy Statement Action 8: *'design a competitive process to procure 2 GW of non-grid capacity in 2025, to be in development by 2030'* and in line with the North Seas Energy Cooperation (NSEC) long-term plan⁶.

It is also unclear if this Roadmap will be developed in line with principles and policies laid down in the draft Offshore Renewable Energy Development Plan II (OREDDP II) and how the same can be developed in a robust manner in the absence of statutory guidelines relating to the designation of statutory DMAPs and the institution of a legislative regime relating to the designation of Marine Protected Areas (MPAs).

EU Acceleration Provisions

The draft Future Framework Policy Statement makes no reference to EU acceleration provisions recently adopted pursuant to the third revision to the Renewable Energy Directive (RED) and which provides for the fast tracking of renewable energy proposals in ‘renewable acceleration areas’ (RAAs) and where renewable energy deployment would be deemed to be of ‘overriding public interest’.

Such provisions have already been utilised by Member States including Germany, France, and Belgium to advance renewable energy proposals in advance of Directive transposition timelines and in order to ensure that renewable energy proposals are developed in time to contribute to EU renewable energy targets for 2030. The European Wind Power Action Plan requires the European Commission to issue guidance on such areas by April 2024⁷.

The European Commission has recently launched a public consultation⁸ on developing guidance for Member States on designating renewables acceleration areas (RAAs) as part of the *Accele-RES* initiative.

While Member States are free to decide for which renewable energy technologies, they designate renewable acceleration areas and the size of those areas, the combined size of those areas should be significant and contribute to achieving the renewable energy objectives set out in the RED Directive.

Such mandatory EU provisions are not provided for in the current iteration of the Planning and Development Reform Bill⁹, thus creating the possibility that this new system will essentially be out of date if not aligned in the immediate term and in advance of RED III transposition timelines. The phased approach adopted to date in relation to RED II transposition has meant that Ireland is currently not meeting the provisions of Article 16 of RED relating to permitting granting processes (including planning and grid related permits) in terms of EU timelines for renewable energy projects.

In light of the scale of the climate challenge facing the State and associated imperative to shift away from imported fossil fuels and ongoing energy crisis necessitating immediate action to transpose parts of the Repower EU Plan, all enabling measures to deliver offshore wind and renewable hydrogen proposals must be facilitated in a timely manner.

Given that the primary focus of the draft Future Framework Policy Statement is the achievement of the State's long-term ORE targets to 2040 and beyond, such acceleration provisions should be fully assessed with a view to applying the same in a proactive and all-encompassing manner and provided for thereafter in the final Policy Statement.

Departmental oversight for implementation of such acceleration provisions falls within the remit of the Department of Housing, Local Government and Heritage (DHLGH), thus creating the potential for further policy divergence from the DMAP process currently being overseen by the Department of the Environment, Climate and Communications (DECC).

Further, the Net Zero Industry Act (NZIA), which sets out a range of measures to ready the EU's regulatory framework for an increase in strategic net-zero technologies (including electrolyzers and fuel cells) and provides that clean technologies essential for industrial decarbonisation should not be hindered by excessive permitting rules will fall to the Department of Enterprise, Trade and Employment (DETE) to transpose once approved by the EU institutions.

Commentary on Workstreams

The potential for zero carbon renewable hydrogen to replace fossil and other greenhouse gas emitting fuels, to assist in meeting 2030 and 2040 climate targets, is potentially understated in WS3 (Offshore Renewables Surplus Potential WS3 – Renewable Hydrogen).

While the importance of interconnection for moving renewable energy between markets is acknowledged, interconnection will not provide security of supply when the wind output is low in the whole region. As Ireland moves to a renewables-based energy system, the reliability of the energy system cannot be accurately measured without looking at decades of weather data. Otherwise, there is a risk the amount of primary energy storage and dispatchable electricity generation to ensure the security and reliability of the energy system will be seriously underestimated. As highlighted by the [Large-scale electricity storage | Royal Society](#), failure to analyse decades of weather data will result in significant underestimation of the volume of dispatchable generation and energy storage needed to secure a weather based energy system. In workstream 3 (Offshore Renewables Surplus Potential WS3 – Renewable Hydrogen), Afry mention that end use of hydrogen is based on average of 'high' and 'low' scenarios in the National Hydrogen Strategy. However, estimates for hydrogen use in some sectors are low for power generation, maritime and aviation. The proposed use of hydrogen in the power system is not consistent with the National Hydrogen Strategy.

Given that the size of hydrogen storage capacity depends on the modelling weather patterns over multiple years, Hydrogen Ireland cautions the risk of underestimating level of hydrogen storage required to support dispatchable generation should too short a timeframe be examined.

WS3 makes the statement that *"the market for domestic hydrogen demand is going to be small"*. However, we note that most countries that are currently developing renewable hydrogen economies have started by supporting the use of hydrogen and fuel cells in transport and mobility, providing an early end use for renewable hydrogen, building demand, developing familiarity with hydrogen as a zero-carbon fuel, and providing choice to both public service, commercial and private vehicle fleet operators and users. It is important that holistic, plan led GHG emission reduction and decarbonisation policies facilitate and support Equality, Diversity and Inclusion (EDI) in all sectors of the economy.

Hydrogen Ireland Recommendation(s)

- **Policy coherence:** Departmental responsibility for delivery of non-grid capacity must be expressly detailed and policy certainty provided in light of the above referenced ambiguity i.e. via a new dedicated Future Framework workstream to the Offshore Wind Delivery Taskforce (OWDT). The National Hydrogen Strategy sets out a definitive, clear pathway for hydrogen in an integrated energy system. Clarity with regard to delivery of existing actions outlined in the National Hydrogen Strategy and related actions detailed in the Future Framework and overarching governance arrangements for implementation is therefore required. Hydrogen Ireland would welcome the establishment of a dedicated industry and Government taskforce to further develop and implement the Future Framework, with representation from hydrogen production on same. This will be of vital importance in the developing of ORE to hydrogen projects.
- **Seabed allocation:** The timely allocation of seabed is a crucial step as it would allow projects to progress and prepare for route to market auctions – be they grid or non-grid connected. This should be separate to route to market auctions which need to be developed in tandem. enabling a timely route to market for the production of hydrogen as soon as possible is also of the utmost importance to the association.
- **DMAPs:** The delivery of the DMAP Roadmap and finalised DMAPs for all coasts in a timely and robust manner must be laid down as a Governmental priority if Ireland's medium to long-term targets are to be achieved and investor confidence maintained. This must be accompanied by a competitive MAC process and policy enablers focused on demand routes to market for non-grid capacity, with all-inclusive delivery dates detailed in line with the State's ORE targets trajectory to 2030, 2040 and 2050.
- **Renewable Acceleration Areas:** EU Acceleration provisions must be provided for in the finalised Future Framework Policy Statement and transposed in a timely manner and all actions to expedite delivery of renewable energy infrastructure given effect as appropriate. Specifically, the EU *"Accele-RES"* initiative, whereby the European Commission will support Member States in implementing the permitting provisions of the revised Renewable Energy Directive in a swift manner¹⁰ should be considered.
- **SEAI Technology Roadmap:** once published, industry and stakeholder engagement should be facilitated and/or a public consultation process undertaken on the final

roadmap given that the same represents a key accompanying policy to the draft Future Framework Policy Statement.

- **Modelling of weather data:** As Ireland moves to a renewables-based energy system, the reliability of the energy system cannot be accurately measured without looking at decades of weather data. Otherwise, there is a risk the amount of primary energy storage and dispatchable electricity generation to ensure the security and reliability of the energy system will be seriously underestimated.
- **Resourcing:** Action 13 of the draft Future Framework Policy Statement regarding alignment of resourcing needs across all Government Departments and agencies to deliver the Future Framework commitments must be actioned without delay. This is a prerequisite to the delivery of robust plan-making and decision-making and is key to the achievement of the State's binding renewable energy and climate targets and net zero no later than 2050 as mandated by the Climate Action and Low Carbon Development (Amendment) Act 2021.