Hydrogen Ireland evidence to the Joint Committee on Enterprise, Trade and Employment JCETE-i-533 – 5 July 2023

On behalf of the Hydrogen Ireland membership, I would like to thank the joint committee for the opportunity to share our thinking on the EU's proposed Net Zero Industry Act. Hydrogen Ireland aims to promote the role of hydrogen to become a key component of our future low carbon economy on the island of Ireland.

I'm Catherine Joyce-O'Caollai (ESB) representing Hydrogen Ireland in my capacity as Co-Chair of the Policy Working Group, accompanied by Gillian Kinsella (Bord Gais Energy), Co-Chair of the Policy Working Group.

The Net Zero Industry Act should be examined in the context of the current emerging policy framework for hydrogen in Ireland. At present, the Climate Action Plan contains commitments to kick-start the hydrogen sector, in particular to release a Hydrogen Strategy which is expected in the coming weeks and for 2GW of offshore wind dedicated to hydrogen production to be in development by 2030. The Net Zero Industry Act can provide support to the development of an Irish hydrogen sector, if implemented in an efficient, practical and flexible manner.

In the interests of time, our comments will focus on:

- the most relevant aspects from an Irish perspective (designation of net zero technologies, enabling legislation to deploy early projects in hydrogen through regulatory sandboxes).
- How these measures can assist Ireland's decarbonisation and security of supply objectives, and enable the industrialisation of offshore wind, with the potential to derive additional value from our significant renewable resources and incentivise regionally balanced growth.
- The skills dimension and establishing academies to develop the skills needed to develop the transformational change in our energy systems.
- Finally, how the Net Zero Industry Act's measures could interact with additional EU instruments, such as EU funding tools and the state aid framework

Alongside the Critical Raw Materials Act, the aim of the Net Zero Industry Act is to scale up the manufacturing of technologies key to achieving climate neutrality. The act has selected certain net zero technologies, such as solar panels, batteries and electrolysers, as being key to meet this target. Electrolysers use renewable electricity to produce renewable or green hydrogen that can be used in a variety of settings to decarbonise multiple sectors including industry, energy generation, transport and many more. The categorisation of "renewable" or green is important, as it therefore can contribute to Ireland's renewable energy targets, and the binding hydrogen sub-targets, under the Renewable Energy Directive.

A simplified regulatory framework for the manufacturing of these technologies is proposed for a limited amount of time, to help increase the competitiveness of the net-zero technology industry in Europe.

Measures to achieve this include time limits on the permit-granting processes for net-zero manufacturing projects and a requirement for Member States to set up one-stop shops to act as single points of contact for project promoters. This is particularly relevant for the EU's electrolyser manufacturing sector, who are planning to ramp up electrolyser production within the EU by a factor of seven in 3 years, moving from the current 3 GW production capacity t approx. 21 GW by 2025. This is particularly relevant in the context of RePowerEU's the doubling of the EU's hydrogen targets. For Ireland's nascent hydrogen sector, the timely supply of hydrogen production equipment, such as electrolysers, will be important if certain hydrogen categorisation rules are to be met.

As Ireland is in the very early stages of developing a hydrogen sector, the inclusion of renewable hydrogen technologies (renewable hydrogen, electrolysers), the manufacturing of fuel cells for different mobility and other uses, and the production of Sustainable Aviation Fuel is clearly relevant in in the Irish context.

The Irish hydrogen industry will l2ikely need to scale-up at pace to help meet our carbon budgets. Therefore, it is important that hydrogen producers can access the necessary technologies like electrolysers from manufacturers. Any proposals considered under the Net Zero Industry Act and Critical Raw Materials Act should be assessed with a view to ensuring that Irish producers can not only access the required technology but can secure it at a competitive price that will support the reduction of hydrogen prices for end-users.

Regulatory sandboxes for cluster development

It is important to also examine how these proposed measures can assist in meetings Ireland's climate targets, specifically measures to enable the development of renewable energy clusters and support regionally balanced growth across the breadth of Ireland. Clusters or hydrogen valleys occur when renewable energy, hydrogen production and consumption, and the associated infrastructure are developed together in close proximity to one another. This cluster/hub-based approach has been important to the development of hydrogen in many countries and has great potential for Ireland. The proposals to develop Hydrogen Valleys and renewable energy hubs, through accelerated permitting, the use of regulatory sandboxes and prioritized access to funding have the potential to provide material momentum for their delivery.

Potential consumers are those whose energy use is not suited for electrification, including high grade heat manufacturing, long distance heavy transport, back-up power for data centers and clean dispatchable electricity generation. The Act provides for Member States to introduce such exceptional and temporary regulatory regimes allowing for the development,

testing and validation of innovative, net-zero technologies before their placement on the market or putting into service. Hydrogen or renewable energy hubs, in the absence of an existing legal and regulatory framework, could therefore benefit from a regulatory environment that enables them to scale at a pace and create conducive conditions for sectors to switch from fossil fuels. The proposal to introduce regulatory sandboxes to test innovative net-zero technologies in a controlled environment for a limited amount of time could be important in working towards 2030 EU targets such as those introduced under Fit for 55, including the revised Renewable Energy Directive, the Alternative Fuels Infrastructure Regulation, FuelEU Maritime, Refuel Aviation. The European Commission is expected to publish guidelines setting out the rules for the operation of the regulatory sandboxes shortly.

Hydrogen Ireland recommends early engagement between the relevant government departments, competent authorities, industry groups and prospective members of renewable energy/hydrogen hubs on the scope of regulatory sandboxes. In addition, a mapping exercise of the existing regulatory framework to identify any prevalent regulatory or/and legal gaps is important.

Skills

The focus on skills, especially the creation of Net-Zero Industry Academies up-skilling and re-skilling programmes, is to be welcomed. While we recognise the scope of much of the act is temporary and includes some exceptional measures to deploy net zero technologies as quickly as possible, it is important to point out we are setting up structures to develop life-long careers. Well designed, targeted, multi-annual funding schemes will nurture apprenticeships, roles for technicians, engineers, energy software designers and many more. Seed funding is envisaged from a variety of EU funding sources (€5.5 million), however a multi-annual approach to fund these academies is important.

Financing and funding

As has been recognized in a number of EU policy statements, the development of net-zero industry projects including hydrogen projects will require public support. The existing state aid framework, *the Climate, Energy and Environment Aid Guidelines*, provides the ruleset for eligible projects and the nature of support that can be provided for under EU law. However, following on from security of supply challenges combined with increased climate targets, EU legislators introduced a range of other mechanisms to enable timely public funding for net zero projects. These include the EU wide hydrogen production support scheme under the European Hydrogen Bank. A pilot auction is expected before the end of the year. Other measures of relevance to the implementation of the Net Zero Industry Act are the Temporary Crisis and Transition Framework and the endorsement of the revised General Block Exemption Regulation. It is also worthwhile considering their role in enabling the replacement of fossil fuels in Irish industry, in order to speed up and simplify state aid approval procedures for the timely deployment of projects.

Thank you for your time. We welcome further engagement on the topic, and we look forward to your questions.