

# Reaching Ireland's green hydrogen potential



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As an island with extensive renewable electricity generation resources, Ireland should be favourably positioned to take advantage of the significant opportunities offered by green hydrogen production, storage, and usage in the decarbonisation of Ireland's energy and transport system, writes Ross Moore, partner and Head of A&L Goodbody's Energy, Infrastructure, and Natural Resources group.

Many stakeholders comment that strong policy direction coupled with appropriate financial incentive are necessary to provide a springboard to the realisation of Ireland's hydrogen potential.

We have examined the direction of some of the EU and Irish policies.

## EU

The EU's Green Deal outlines the EU's objective to being the first climate neutral continent by 2050. As a core part of this objective, the EU Commission's prioritisation of renewable and low-carbon hydrogen development,

particularly from wind and solar energy, is evident. A myriad of EU policy and legislative initiatives aim to support this prioritisation.

## Promotion of renewable hydrogen

Over the last few years, the EU has adopted progressive policies and strategies to achieve the promotion of renewable hydrogen. As a first building block, the EU Energy System Integration Strategy and the EU Hydrogen Strategy were published in 2020. The EU Commission has stated that it has

implemented the full list of the twenty key actions identified in the EU Hydrogen Strategy. These key actions aim to:

- create a strong investment agenda;
- boost demand in end-use sectors and scale up production to support production and demand;
- design a framework for hydrogen infrastructure and market rules;
- promote research and innovation in hydrogen technologies; and
- create international dimensions to redesign EU energy partnerships with EU neighbours and international partners.

## Implementation of EU Hydrogen Strategy

Implementation of the EU Hydrogen Strategy included measures such as:

- creation of an investment agenda through the European Clean Hydrogen Alliance which brings together industry, national and local authorities, civil society, and others to achieve an ambitious deployment of hydrogen technologies;
- advanced proposals for a European Hydrogen Bank to unlock the private investment in hydrogen value chains by connecting renewable energy supply to EU demands;
- legislative proposal for a Net-Zero Industry Act to ratchet up the manufacturing of clean technologies and creation of green jobs in the EU;
- identification of further funding for hydrogen projects in the Clean Hydrogen Partnership and the EU Innovation Fund;
- creation of funding tools such as the hydrogen public funding compass to help finance hydrogen projects. The hydrogen public funding compass provides orientation to members of the European Clean Hydrogen Alliance with respect to funding opportunities for future investment opportunities in projects related to the large-scale deployment of renewable and low carbon hydrogen; and

- proposal (as part of *REPowerEU*) of the "hydrogen accelerator" strategy which seeks to increase the deployment of renewable hydrogen and the uptake of hydrogen in hard-to-decarbonise sectors.

## Legislative framework for renewable hydrogen

The *Fit for 55* legislative package includes a number of legislative proposals that aim to translate the European Hydrogen Strategy into a concrete European hydrogen policy and legal framework, including the Hydrogen and Gas Markets Decarbonisation Package. There are proposals for inclusion of mandatory sub-targets for renewable hydrogen in industry and transport in a recast Renewable Electricity Directive.

The proposed Directive on Common Rules for Internal Markets in Renewables Gases and Hydrogen intends to create a common threshold/standard for the promotion of hydrogen production installations as well as certification schemes for renewable and low-carbon hydrogen. It also, along with the proposal for the Regulation on the Internal Markets for Hydrogen includes proposals covering hydrogen infrastructure, access to hydrogen markets, and renewable gas market integrity.

In February 2023, the EU Commission proposed detailed rules to define what constitutes renewable hydrogen with the adoption of two Delegated Acts under the Renewable Energy Directive. The first defines under what conditions hydrogen and hydrogen-based fuels can be considered as renewable fuels and clarifies the principles for additionality, including production from renewable energy sources. The second delegated act provides a methodology for calculating life-cycle greenhouse gas emissions.

## Ireland

### National Energy Security Framework

In April 2022, the Department of the Environment, Climate and Communications (DECC) published the National Energy Security Framework. This framework document provided that the development of an integrated hydrogen strategy for Ireland is to be prioritised in line with the Climate Action Plan and will include the possibility of setting clear national targets for hydrogen.

### Climate Action Plan 2023

Published by DECC in December 2022, the Climate Action Plan 2023 outlines several key milestones and actions in the context of renewable hydrogen. These include:

- a target of 2GW of offshore wind for green hydrogen by 2030;
- at least 2.1TWh consumption of zero emission gas by 2030; and
- zero emission gas fired generation from biomethane and hydrogen by 2030.

A supplementary annex of actions published in March 2023 provided specific actions required to implement

the targets set out in the Climate Action Plan 2023.

The Climate Action Plan 2023 aims to deliver a National Biomethane Strategy and a policy/regulatory roadmap for green hydrogen use – both to be delivered in 2023. In addition, there is an action to introduce a Renewable Heat Obligation Scheme by 2024 to incentivise suppliers of all fuels in the heat sector to ensure that a certain proportion of the energy supplied is renewable.

## Hydrogen strategy consultation

In July 2022, DECC published its *Consultation on Developing a Hydrogen Strategy* to invite discussions on the potential role and opportunities for green hydrogen. Key questions asked of stakeholders in order to develop the hydrogen strategy related to priorities for hydrogen research, demand and end-uses, supply, transportation and storage, export opportunities, safety, necessary support measures to be taken, and energy security questions. The consultation period has now closed, and the outcome is expected imminently. The hydrogen strategy will outline the pathways towards the production of green hydrogen in Ireland and set out a holistic overview of hydrogen supply and demand, transportation, and its use in Ireland's energy mix in the period to 2030 and beyond.

## Gas Networks Ireland

Gas Networks Ireland recently completed its Network Innovation Centre where they are developing a detailed hydrogen technical strategy to ensure that the existing gas network is capable of safely transporting and storing both blended and 100 per cent hydrogen into the future. Another important step in hydrogen development over the last year was the appointment (pursuant to Statutory Instrument No. 350 of 2022) of Gas Networks Ireland as the body responsible for issuing guarantees of origin for renewable gases which are to be administered in a yet-to-be-published supervisory framework established by the Commission for the Regulation of Utilities.

A&L Goodbody was pleased to advise Energia on its partnership with Translink to supply hydrogen from one of Energia's windfarms in Northern Ireland, to fuel public buses in Belfast. Let us hope that is the first of many hydrogen production and offtake transactions on the island of Ireland in the near future.

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