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# MERCURY RENEWABLES (CARROWLEAGH) LIMITED

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## FIRLOUGH WIND FARM, CO. MAYO AND HYDROGEN PLANT, CO. SLIGO

### PLANNING STATEMENT

**June 2023**

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**FIRLOUGH WIND FARM, CO. MAYO**  
**AND**  
**HYDROGEN PLANT, CO. SLIGO**

**PLANNING STATEMENT**

**CONTENTS**

1	PLANNING AND LEGISLATIVE CONTEXT .....	1
1.1	Introduction .....	1
1.2	Statement of Authority .....	4
1.3	Strategic Infrastructure Development (SID).....	5
2	NEED FOR THE DEVELOPMENT – INTERNATIONAL NATIONAL AND REGIONAL POLICY .....	5
2.1	International Policy .....	5
2.1.1	The United Nations Framework Convention on Climate Change.....	5
2.1.2	Intergovernmental Panel on Climate Change – IPCC’s Sixth Assessment report (AR6).....	7
2.2	European Legislative and Policy Context .....	8
2.2.1	Renewable Energy Directive .....	8
2.2.2	The European Green Deal 2019.....	10
2.2.3	REPowerEU.....	11
2.2.4	Renewable Deployment Acceleration.....	13
2.2.5	EU Hydrogen Policy.....	16
2.3	National Policy .....	18
2.3.1	Climate Action and Low Carbon Development Act 2021 .....	20
2.3.2	Climate Emergency .....	20
2.3.3	The Climate Action Plan 2023 .....	20
2.3.4	National Energy and Climate Plan 2021-2030 .....	23
2.3.5	National Energy Security Framework .....	24
2.3.6	Renewable Fuels for Transport Policy Statement .....	26
2.3.7	Ireland’s Hydrogen Strategy .....	27
2.4	Regional policy .....	27
2.4.1	The Regional Spatial and Economic Strategy (RSES) for The Northern and Western Region 27	
2.4.2	Mayo County Development Plan 2022-2028.....	31
2.4.3	Renewable Energy Strategy for Co. Mayo 2011-2022.....	45
2.4.4	Sligo County Development Plan 2017-2023.....	49
2.5	Other Relevant Policy .....	58
2.5.1	The Wind Energy Development Guidelines – Guidelines for Planning Authorities June 2006	58

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2.5.2	The Draft Revised Wind Energy Development Guidelines -Guidelines for Planning Authorities December 2019 .....	58
2.6	Other Relevant Hydrogen policy and research.....	59
2.6.1	Directive 2012/18/EU (“SEVESCO III”) .....	60
2.6.2	ATEX 1999/92/EC .....	60
2.6.3	Directive 2014/34/EU (“ATEX”).....	60
2.6.4	Applicable Design Standards and Codes .....	61
2.6.5	Economic .....	64
3	MATERIAL PLANNING CONSIDERATIONS.....	64
3.1	The National Interest and Strategic Importance .....	64
3.2	Renewable Energy Policy.....	65
3.3	The Proposed Development as Sustainable Development.....	66
4	CONCLUSION.....	69

# 1 PLANNING AND LEGISLATIVE CONTEXT

## 1.1 Introduction

This Planning Statement sets out the planning policy context relevant to the Proposed Development (as described in Chapter 2 Project Description) by providing an overview of the international, national and regional legislation and policy of relevance, as well as a detailed review of the planning policy framework within which the application will be assessed. This section also provides a brief overview of the most up-to-date statistics on Irish renewable energy production, climate emissions, and the benefits the proposed Environmental Impact Assessment (EIA) Development can bring about to helping Ireland meet its legally binding 2030 and 2050 climate targets.

This Planning Statement considers the Proposed Development's accordance with the principle of Proper Planning and Sustainable Development, having regard to Government, Regional and County-level planning policies and plans including the Mayo and Sligo County Development Plans, together with relevant statutory guidelines. In this context it is noted that there are a number of relevant documents in various forms including the draft wind energy development guidelines published for public consultation in December 2019, which will supersede the 2006 Wind Energy Guidelines, once adopted.

The statement is set out as follows:

- **Section 1: Introduction**
- **Section 2; Need for the Development; International, National and Regional Policy**
- **Section 3: Material Planning Considerations**
- **Section 4: Conclusion**

The urgent need to fight climate change and society's rising demand for energy is prevalent across the policies reviewed. Renewable energy is identified throughout this review as being required to play a vital role in mitigating climate change by transitioning to a low carbon economy and society. By investing in renewable energy, Ireland can promote sustainable economic development using its own, secure and clean energy.

Following the invasion of Ukraine by Russia, the case for a rapid clean energy transition has never been stronger and clearer. In May 2022, the European Commission presented

the REPowerEU Plan<sup>1</sup>, a plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition. The REPowerEU Plan includes proposed amendments to the Renewable Energy Directive<sup>2</sup> including:

- Specifying that renewable energy plants are presumed to be of **overriding public interest**
- Increasing the Union's renewable energy target to 45% – up from 40% in the Commission's initial Fit-for-55 energy package.

The plan sets out proposed measures to help Europe achieve this ambition, including accelerating the replacement of natural gas, coal and oil in hard-to-decarbonise industries with green hydrogen. The plan contains an increased target of 10 million tonnes of domestically produced renewable hydrogen production by 2030.

In recognition of the worsening energy crises arising from Russia's war against Ukraine, the Council of the European Union adopted Regulation (EU) 2022/2577 on 22 December 2022, *Laying down a framework to accelerate the deployment of renewable energy*<sup>3</sup>. This regulation, which has immediate effect in Member States, applies to "*all permit-granting processes that have a starting date within the period of its application*"<sup>4</sup>. The period of application of the Regulation is the 30 December 2022 to 29 June 2024 and therefore applies to the present application.

In May 2019 the Irish Parliament declared a "climate emergency". As a response to combat this emergency the Government published The Climate Action Plan (CAP) 2019 on 17<sup>th</sup> June 2019. This was subsequently updated in 2021 and 2023. The CAP states that decisive and urgent action is required to arrest the acceleration of greenhouse gas emissions within the limited window of opportunity that remains. The CAP is ambitious, affecting almost every sector of the economy. The key focus of the CAP is to identify how the Government will reduce Ireland's, still growing, greenhouse gas emissions.

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<sup>1</sup> European Commission. (2022) REPowerEU Plan. [https://eur-lex.europa.eu/resource.html?uri=cellar:fc930f14-d7ae-11ec-a95f-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:fc930f14-d7ae-11ec-a95f-01aa75ed71a1.0001.02/DOC_1&format=PDF) Accessed 14/05/2023

<sup>2</sup> European Commission. (2022). DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources, Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022PC0222&from=EN> Accessed 14/05/2023

<sup>3</sup> Council of the European Union Regulation (EU) 2022/2577 of the 22 December 2022, laying down a framework to accelerate the deployment of renewable energy <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022R2577>

<sup>4</sup> *Ibid.*, Article 1

The Proposed Development will support the Climate Action and Low Carbon Development (Amendment) Act, 2021 and the Climate Action Plan 2023 in the transition to net zero and carbon neutral economy by 2050.

The Wind Farm will have an installed capacity of 78 MW. The Hydrogen Plant electrolyser will be scaled up to meet demand for green hydrogen in the Irish market to a maximum 80 MW capacity. The 80 MW electrolyser will produce a maximum of 31,200 kg of green hydrogen per day, consuming the full Wind Farm output. This will contribute to helping Ireland to reduce emissions in hard to abate sectors such as transport and the high heat industry.

Based on the displacement of diesel usage by Heavy Goods Vehicles (HGVs), this could result in the avoidance of up to 49,883 tonnes of CO<sub>2</sub>, 30,774 kg of NO<sub>x</sub> and 669 kg of PM per year. The smallest initial electrolyser capacity will be 10 MW, producing a maximum of 4,000 kg of green hydrogen per day, leaving 55 to 68 MW of Wind Farm installed capacity dispatching to the electricity grid (based on a turbine range of between 5 and 6 MW).

This contributes to the 45% overall renewable energy target for the EU introduced by the REPowerEU plan in light of the war in Ukraine and in achieving the European Hydrogen Strategy and REPowerEU targets of 6 GW of renewable hydrogen electrolysers by 2024, and 40 GW by 2030 with production of up to 10 million tonnes of renewable hydrogen. It will also contribute between 0.05 to 0.39 TWh of green hydrogen towards the Climate Action Plan 2023 targets of 2.1 TWh consumption of zero emission gas (which includes green hydrogen) for industrial heating and up to 0.7 TWh of renewable gas to aid in the decarbonisation of residential heating.

The installed wind energy and renewable electricity generated will help Ireland to reach its 80% renewable electricity 2030 target. In 2020, this figure was at a high of 42%, but dropped to 34.7% in 2021<sup>5</sup>.

This will also help Ireland achieve its 9 GW target for installed wind energy capacity by 2030. In May 2022 this was 4.3 GW, leaving a shortfall of 4.7 GW to be achieved in the next 8 years.

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<sup>5</sup> EPA. Energy. <https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/energy/> Accessed 14/04/2023

This Planning Statement accompanies a Planning Application submitted under the provisions of Planning and Development Act 2000 (as amended) Section 37E for the construction of 13 new turbines, grid connection, Hydrogen Plant, Interconnector and all associated works relating to the Proposed Development.

The Firlough Wind Farm and Hydrogen Plant (the Proposed Development) is subject to the EIA process as it falls under 'Category 3(i) of the Fifth Schedule Part II of the Planning and Development Regulation, 2001 (SI NO. 600 of 2001)', which sets out a comprehensive list of project types and development thresholds where relevant, which are subject to Environmental Impact Assessment (EIA) for the purposes of the Regulations. The Regulations stipulate that 'Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts', requires an EIAR.

## **1.2 Statement of Authority**

This Planning Statement has been prepared by Sarah Jones, Breena Coyle and David Kiely of Jennings O'Donovan & Partners Limited.

Sarah Jones is an Environmental Scientist and Planner and holds a first-class MSc in Environmental Sustainability from University College Dublin and a Bachelor (Hons.) Degree in Geography from Manchester Metropolitan University. Sarah has recently developed a specialist knowledge of hydrogen production and her key capabilities include Environmental Impact Assessment (EIA) screenings, Appropriate Assessment (AA) screenings, Planning and Environmental reports and Applications, Environmental Impact Assessments, Feasibility Studies, Construction Environmental Management Plans, Stakeholder Engagement, Project Management.

Breena Coyle, Senior Town Planner in Jennings O'Donovan & Partners Limited (JOD), has a Masters in Environment Planning from Queens University and has over 12 years' experience in Environmental Planning throughout Ireland and the UK. She has a clear understanding of the legislative framework and has experience in the development of windfarms from the pre-planning process through to construction.

David Kiely, Director of Jennings O'Donovan & Partners Limited, holds a BE in Civil Engineering from University College Dublin and MSc in Environmental Protection from IT Sligo. He is a Fellow of Engineers Ireland, a Chartered Member of the Institution of Civil Engineers (UK) and has over 40 years' experience. He has extensive experience in the



preparation of EIAR and EIS for environmental projects including Wind Farms, Solar Farms, Waste Water Projects, Quarries and various commercial developments. David has also been involved in the construction of over 50 wind farms since 1997.

### **1.3 Strategic Infrastructure Development (SID)**

An Bord Pleanála, by way of Decision reference APB PC04.308173, has determined that the Development constitutes Strategic Infrastructure Development as defined by Section 2(1) of the Planning and Development Act 2000, as amended, and that a planning application should be made directly to the Board. The planning application for the Development is therefore being made to An Bord Pleanála under Section 37E of the Planning and Development Act 2000, as amended.

## **2 NEED FOR THE DEVELOPMENT – INTERNATIONAL NATIONAL AND REGIONAL POLICY**

### **2.1 International Policy**

#### **2.1.1 The United Nations Framework Convention on Climate Change**

The United Nations Framework Convention on Climate Change (UNFCCC)<sup>6</sup> implemented by the United Nations in May 1992, determined a long-term objective to lessen greenhouse gases in the atmosphere, with the purpose of preventing anthropogenic interference with the climatic system. The Kyoto Protocol was implemented in 1997. National governments who signed up to the Kyoto Protocol are committed to reducing their greenhouse gas emissions. The UNFCCC recognises that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The convention enjoys near universal membership, with 197 countries listed as being Parties to the Convention.

The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention. The Kyoto Protocol came into effect in 2005, as a result of which, emissions reduction targets agreed by developed countries, including Ireland, are now binding. Under the Kyoto Protocol, the EU agreed to achieve a significant reduction in total greenhouse gas emissions of 8% below 1990 levels in the period 2008 to 2012. Ireland's contribution to the EU commitment for the period 2008 – 2012 was to limit its greenhouse gas emissions to no more than 13% above 1990 levels.

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<sup>6</sup> The United Nations Framework Convention on Climate Change (UNFCCC) (1992). <http://unfccc.int/resource/docs/convkp/conveng.pdf>  
Accessed 23/05/2023

In Doha, Qatar, on 8 December 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes:

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 1 January 2013 to 31 December 2020;
- A revised list of greenhouse gases (“GHG”) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

Under the protocol, countries must meet their targets primarily through national measures, although market-based mechanisms (such as international emissions trading) can also be utilised.

The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. It seeks to accelerate and intensify the actions and investment needed for a sustainable low carbon future. Its central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The Agreement also aims to strengthen the ability of countries to deal with the impacts of climate change. On 5 October 2016, the threshold for entry into force of the Paris Agreement was achieved. Ireland is legally bound by Article 7 of the United Nations COP21 Paris Agreement, signed in December 2015, to prepare and submit periodic updates on its national adaptation and mitigation plans in the global effort to keep global warming below 1.5°C.

The United Nation’s (UN) 26<sup>th</sup> global climate summit was held in 2021 in Glasgow, where nations committed to a range of decisions in a collective effort to limit global temperatures to 1.5 degrees. The conference focussed on driving action across:

- Mitigation - reducing emissions
- Adaptation - helping those already impacted by climate change
- Finance - enabling countries to deliver on their climate goals
- Collaboration - working together to deliver even greater action

The 27<sup>th</sup> Global climate summit; The COP27 UN Climate Change Conference, was held in 2022 in Egypt. Agreement was reached on financing loss and damage from the impacts of climate change – an agreement which was negotiated in part by Ireland's Minister for Environment, Climate and Communications, Eamon Ryan.

Out of 189 Parties that have ratified the Paris Agreement, 90% mentioned renewables and roughly 70% included quantifiable energy targets in their initial Nationally Determined Contributions.

However, a report by the International Energy Agency<sup>7</sup> (IEA) cautions that renewables growth will still need to double to reach the Paris Agreement goal of achieving net-zero emissions by 2050. The International Renewable Energy Agency (IRENA), an intergovernmental organisation focusing on sustainable energy, in a report<sup>8</sup> on the Nationally Determined Contributions relating to renewable energy also note that even with the renewable energy pledges in the 2021 Paris agreement, the 1.5 °C goal will still be exceeded before the end of the century.

Ireland is one of the 186 countries signed up to the Paris agreement, under the terms, Ireland is required to reduce greenhouse gas emissions by at least 40% by 2030 when compared with levels in 1990. The Proposed Development will displace heavily polluting fossil fuels by producing renewable wind energy and green hydrogen.

### **2.1.2 Intergovernmental Panel on Climate Change – IPCC's Sixth Assessment report (AR6)**

In April 2022, the IPCC: made up of scientists from around the world, which provides regular assessments on the scientific basis of climate change, its impacts and future risks, released their AR6 report<sup>9</sup>. The report shows that human induced climate change is causing impacts of an extent and magnitude much larger than previously estimated. It highlights the widespread, dangerous disruptions caused in nature and shows how billions of people's lives are being impacted. It outlines how countries are falling behind on policies and actions needed to limit global temperature increases and achieve net zero emissions.

Reducing carbon emissions by phasing out fossil fuels is stated as being urgently needed. Throughout the report, renewable energy such as wind is highlighted as an adaptation to displace fossil fuels, and so reduce emissions and mitigate climate effects. Renewable

<sup>7</sup> IEA. (2021) Renewables 2021 <https://www.iea.org/reports/renewables-2021> Accessed 23/03/2023

<sup>8</sup> IRENA. (2021) [https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Jan/IRENA\\_NDCs\\_RE\\_Targets\\_2022.pdf](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Jan/IRENA_NDCs_RE_Targets_2022.pdf) Accessed 23/03/2023

<sup>9</sup> IPCC. (2022) AR6. <https://www.ipcc.ch/assessment-report/ar6/> Accessed 14/04/2023

energy is also credited with benefits such as improving air quality, reducing the cost of electricity, improving wealth and development and increasing energy security. It is also recommended that increasing the diversity of energy generation with renewables reduces vulnerability to climate change and improves the resilience of the energy system.

## 2.2 European Legislative and Policy Context

The European Union's (EU) energy policies are set out and powered by three main objectives:

- To ensure energy providers operate in a competitive environment, ensuring affordable prices for homes and businesses;
- To secure energy supplies and to ensure reliable energy delivery whenever and wherever it is needed; and
- To have sustainable energy consumption, through lowering dependence on fossil fuels and decreasing greenhouse gas emissions and pollution.

The importance of delivering on these key objectives have been underlined by the Commission's robust and ambitious response to the ongoing conflict in Ukraine – and has seen a suite of legislative files introduced in the sustainability and environmental sectors in its current mandate.

### 2.2.1 Renewable Energy Directive

The EU produced the Renewable Energy Directive (REDI) 2009/28/EC<sup>10</sup>, revised in 2018, to make the EU a global leader in renewable energy and ensure that the target of the final energy consumption being at least 16% renewables by 2020 and 27% renewables are met by 2030. In 2015, the EU set itself a long-term goal of reducing greenhouse gas emissions by 80-95%, when compared to 1990 levels, by 2050.

Under the 2009 Renewable Energy Directive (REDI), Ireland committed to produce at least 16% of all energy consumed by 2020 from renewable sources. This was to be met by the following proportion of sector demands being met by renewable sources: 40% of electricity, 12% of heating and 10% of transport. Ireland is facing significant challenges in efforts to meet targets, alongside its commitment to transition to a low carbon economy by 2050. Ireland did not meet its 2020 target for overall Renewable Energy Share resulting in Ireland being obligated to acquire statistical transfers of 3.3 TWh of renewable energy from other Member States to compensate for this shortfall.

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<sup>10</sup> EU Commission. [https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive\\_en](https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en) Accessed 07/06/2023

From 2021, REDI was replaced by the second Renewable Energy Directive (REDII), which continues to promote the growth of renewable energy out to 2030. Ireland's renewable energy in transport target (RES-T) under REDII is 14% by 2030.

On 30<sup>th</sup> March 2023, negotiators from the European Council and Parliament reached a provisional political agreement concerning a further revision of the Renewable Energy Directive (REDIII). RED III would see Ireland's RES-T targets raised further, with the provisional agreement offering EU Member States latitude to choose between:

- a binding target of 14.5% reduction of greenhouse gas intensity in transport from the use of renewables by 2030; or
- a binding target of at least 29% share of renewables within the final consumption of energy in the transport sector by 2030.

The provisional agreement sets a binding combined sub-target of 5.5% for advanced biofuels (generally derived from non-food-based feedstocks) and renewable fuels of non-biological origin (RFNBOS) – mostly renewable hydrogen and hydrogen-based synthetic fuels – in the share of renewable energies supplied to the transport sector. Within the 5.5% sub-target, there is a minimum requirement of 1% of RFNBOS.

In 2021, Ireland's share of renewable transport was 4.29%. In 2021, the transport sector was the second largest emitter of GHG emissions in Ireland, producing 10.89 million tonnes of carbon dioxide equivalent (Mt CO<sub>2</sub>eq), 17.7% of overall GHGs<sup>11</sup>.

There is therefore a need to expedite the decarbonisation of the transportation sector, which could be assisted by the Proposed Development with the production of green hydrogen.

There are approximately 2,215,127 Heavy-goods vehicles (HGVs) in Ireland<sup>12</sup>, almost all diesel fuelled, these produce around 20% of road transport emissions<sup>13</sup>. The haulage industry is considered a hard to decarbonise industry, to which hydrogen fuel cell electric vehicles offer a solution.

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<sup>11</sup> EPA. (2022). Latest Emissions Data <https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/latest-emissions-data/> Accessed 03/03/23

<sup>12</sup> ACEA. (2022). Report – Vehicles in use, Europe 2022. <https://www.acea.auto/files/ACEA-report-vehicles-in-use-europe-2022.pdf> Accessed 14/04/2023

<sup>13</sup> EPA. (2020). Final GHG emissions report. [https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/Irelands-Final-Greenhouse-Gas-Emissions-report-1990-2020\\_finalv1.1.pdf](https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/Irelands-Final-Greenhouse-Gas-Emissions-report-1990-2020_finalv1.1.pdf) Accessed 14/04/2023

Ireland missed its renewable energy share in heat RES-H targets under REDI. The lack of progress in RES-H was the main reason for failing to meet the overall Renewable Energy Share (RES) target in 2020<sup>14</sup>. Ireland's RES-H was 5.2% in 2021 under REDII. Although REDII does not specify a target for RES-H, the directive requires Ireland to "endeavour to increase" the RES-H by an indicative 1.1 percentage points as an annual average calculated for the periods 2021–2025 and 2026–2030 – culminating in a planned RES-H of 24% by 2030. Green hydrogen, produced by the Proposed Development could provide renewable heating energy through displacement of fossil fuel gas, coal and oil and contribute to this increase.

### 2.2.2 The European Green Deal 2019

Presented in December 2019, the European Green Deal focuses on 3 key principles for the clean energy transition, which will help reduce greenhouse gas emissions and enhance the quality of life of our citizens:

- Ensuring a secure and affordable EU energy supply.
- Developing a fully integrated, interconnected and digitalised EU energy market.
- Prioritising energy efficiency, improving the energy performance of our buildings and developing a power sector based largely on renewable sources.

The Commission's main objectives to achieve this are:

- Build interconnected energy systems and better integrated grids to support renewable energy sources.
- Promote innovative technologies and modern infrastructure.
- Boost energy efficiency and eco-design of products.
- Decarbonise the gas sector and promote smart integration across sectors.
- Empower consumers and help EU countries to tackle energy poverty.
- Promote EU energy standards and technologies at global level.
- Develop the full potential of Europe's offshore wind energy.

Hydrogen is highlighted as a priority in the European Green Deal and central to reducing greenhouse gas emissions and moving towards a climate neutral economy.

On 8<sup>th</sup> July 2020, the Commission presented its plan for its energy system integration which focused on developing a more circular energy system; greater direct electrification of end-use sectors and the promotion of clean fuels including renewable hydrogen.

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<sup>14</sup> SEAI. (2022). <https://www.seai.ie/publications/Energy-in-Ireland-2022.pdf> Accessed 14/04/2023

On 15<sup>th</sup> December 2021, the European Commission proposed a set of legislative proposals aimed at decarbonising the EU gas market and further facilitating the uptake of renewable and low-carbon gases such as hydrogen. The aim of the proposals was to create the conditions for a shift from fossil natural gas to renewable and low-carbon gases, in particular biomethane and hydrogen, and strengthen the resilience of the gas system. One of the main aims is to establish a market for hydrogen, creating the right environment for investment, and enabling the development of dedicated infrastructure.

On 13<sup>th</sup> February 2023, the Commission unveiled two Delegated Acts as required under the aforementioned Renewable Energy Directive. These Acts are part of a broad EU regulatory framework for hydrogen which includes energy infrastructure investments and state aid rules, and legislative targets for renewable hydrogen for the industry and transport sectors. They will ensure that all renewable fuels of non-biological origin (also known as RFNBOs) are produced from renewable electricity. The two Acts are inter-related and both necessary for the fuels to be counted towards Member States' renewable energy target. They will provide regulatory certainty to investors as the EU aims to reach 10 million tonnes of domestic renewable hydrogen production and 10 million tonnes of imported renewable hydrogen in line with REPowerEU.

### 2.2.3 REPowerEU

In May 2022, The European Commission presented the REPowerEU Plan<sup>15</sup>, in response to the global energy market disruption caused by Russia's invasion of Ukraine. It puts forwards a set of actions to:

- Save energy;
- Diversify supplies;
- Quickly substitute fossil fuels by accelerating Europe's clean energy transition;
- Smartly combine investments and reforms.

It states:

*“Lengthy administrative procedures are one of the key barriers for investments in renewables and their related infrastructure. These barriers include the complexity of the applicable rules for site selection and administrative authorisations for projects, the complexity and duration of the assessment of the environmental impacts of the projects, grid connection issues, constraints on adapting technology specifications during the permit-granting procedure, or staffing issues of the permit-granting authorities or grid operators. In*

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<sup>15</sup> European Commission. (2022). REPowerEU Plan [https://eur-lex.europa.eu/resource.html?uri=cellar:fc930f14-d7ae-11ec-a95f-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:fc930f14-d7ae-11ec-a95f-01aa75ed71a1.0001.02/DOC_1&format=PDF) Accessed 14/04/2023

*order to accelerate the pace of deployment of renewable energy projects it is necessary to adopt rules which would simplify and shorten permit-granting processes.”*

The REPowerEU Plan also includes proposed amendments to the Renewable Energy Directive<sup>16</sup> including:

- Specifying that renewable energy plants are presumed to be of **overriding public interest**.
- Increasing the Union's renewable energy target to 45% – up from 40% in the Commission's initial Fit-for-55 energy package.

In 2021, the EU reached a 22.8%<sup>17</sup> share of its gross final energy consumption from renewable sources – down from 22.1% in 2020, which leaves a long way to go to reach this increased target.

The plan sets out a number of measures proposed by the Commission to help Europe achieve this ambition, including accelerating the replacement of natural gas, coal and oil in hard-to-decarbonise industries and transport with fossil-free hydrogen, an increased target of 10 million tonnes of domestic renewable hydrogen production and a new target of 10 million tonnes of renewable hydrogen imports by 2030.

*“Taken together, these actions will structurally transform EU's energy system. They require effective coordination between European regulatory and infrastructure measures, as well as national investment and reforms and joined-up energy diplomacy. They also require coordination between action on the demand side, to reduce energy consumption and transform industrial processes to replace gas, oil and coal with **renewable electricity and fossil-free hydrogen**, with action on the supply side to create the capacity and framework to roll out and produce renewable.”*

In accordance with the REPowerEU Communication, in May 2022, the Commission published a recommendation<sup>18</sup> on speeding up permit-granting procedures for renewable energy projects, accompanied by guidance to help the Member States speed up permitting for renewable energy plants.

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<sup>16</sup>European commission. (2022). <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022PC0222&from=EN> Accessed 14/04/2023

<sup>17</sup> European Commission. (2023). [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Renewable\\_energy\\_statistics#Share\\_of\\_renewable\\_energy\\_more\\_than\\_doubled\\_between\\_2004\\_and\\_2020](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Renewable_energy_statistics#Share_of_renewable_energy_more_than_doubled_between_2004_and_2020) Accessed 23/03/2023

<sup>18</sup>EU. [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=PI\\_COM:C\(2022\)3219&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=PI_COM:C(2022)3219&from=EN) Accessed 23/03/2023



The recommendation was created in order to help Member States exploit all possibilities for acceleration that exist within the legislative framework. It proposes measures to streamline procedures at national level, addresses ambiguities in the application of EU legislation and sets out good practices in Member States. It recommends participatory approaches that involve local and regional authorities and providing authorities with the necessary resources so as to facilitate the timely realisation of locally adapted investments.

Recommendations include:

*“Member States should ensure that the planning, construction and operation of plants for the production of energy from renewable sources, their connection to the electricity, gas and heat grid and the related grid itself and storage assets **qualify for the most favourable procedure available in their planning and permit-granting procedures** and are **presumed as being in the overriding public interest** and in the **interest of public safety**, in view of the legislative proposal amending and strengthening the provisions of Directive (EU) 2018/2001 related to administrative procedures and without prejudice to the Union law.”*

*“Member States should establish clearly defined, accelerated and as short as possible deadlines for all the steps required for the granting of permits to build and operate renewable energy projects, specifying the instances where such deadlines may be extended and under which circumstances. Member States should establish binding maximum deadlines for all relevant stages of the environmental impact assessment procedure.”*

The proposed directive target increase and change of wording to “over riding public interest” underlines the vital nature of investments into new renewable energy developments such as Firlough Wind Farm and Hydrogen Plant, which would increase the domestic renewable energy production capacity of Ireland and its contribution to the EU overall target.

#### **2.2.4 Renewable Deployment Acceleration**

On 22<sup>nd</sup> December 2022, Council Regulation (EU) 2022/2577 laying down a framework to accelerate the deployment of renewable energy was adopted by the Council of the European Union<sup>19</sup>. This regulation, which has immediate effect in Member States, applies to *“all permit-granting processes that have a starting date within the period of its*

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<sup>19</sup> Council of the European Union Regulation (EU) 2022/2577 of the 22 December 2022, laying down a framework to accelerate the deployment of renewable energy <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022R2577>

*application*<sup>20</sup>. The period of application of the Regulation is the 30 December 2022 to 29 June 2024 and therefore applies to the present application. It confirms the EU policy position that renewable energy plants, including wind energy, are crucial to fight climate change and pollution, reduce energy prices, decrease the Union's dependence on fossil fuels and ensure the Union's security of supply. The aim of the regulation is to eliminate bottlenecks in new permitting procedures. It notes that considering renewable energy projects as being presumed of overriding public interest and serving public health and safety will allow new projects to benefit from a simplified assessment for specific derogations foreseen in the relevant Union environmental legislation with immediate effect.

It states:

*"A fast deployment of renewable energy sources can help to mitigate the effects of the current energy crisis, by forming a defence against Russia's actions. Renewable energy can significantly contribute to counter Russia's weaponisation of energy by strengthening the Union's security of supply, reducing volatility in the market and lowering energy prices."*<sup>21</sup>

Central to the regulation is the presumption that renewable energy development is in the overriding public interest in the context of addressing competing interests under the Habitats Directive, Birds Directive and the Water Framework Directive and that renewable energy projects should be given priority when balancing legal interests in a given case.

- (1) The planning, construction and operation of plants and installations for the production of energy from renewable sources, and their connection to the grid, the related grid itself and storage assets shall be presumed as being in the overriding public interest and serving public health and safety when balancing legal interests in the individual case, for the purposes of Article 6(4) and Article 16(1)(c) of Council Directive 92/43/EEC, Article 4(7) of Directive 2000/60/EC of the European Parliament and of the Council and Article 9(1)(a) of Directive 2009/147/EC of the European Parliament and of the Council....*
- (2) Member States shall ensure, at least for projects which are recognised as being of overriding public interest, that in the planning and permit-granting process, the construction and operation of plants and installations for the production of energy from*

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<sup>20</sup> *Ibid.*, Article 1

<sup>21</sup> *Ibid* Recital 1

*renewable sources and the related grid infrastructure development are given priority when balancing legal interests in the individual case...*<sup>22</sup>

Overriding public interest and serving public health and safety is presumed for all renewable energy projects. This presumption may be rebutted where there is clear evidence that those projects have major adverse effects on the environment which cannot be mitigated or compensated for. As regards the protection of species, the Regulation states that this priority should only be given if, and to the extent that, appropriate species conservation measures contributing to the maintenance or restoration of the populations of the species at a favourable conservation status are undertaken and sufficient financial resources, as well as areas, are made available for this purpose.<sup>23</sup>

The Proposed Development has been assessed under each of the topics contained in the EIAR, with adverse residual environmental impacts actively avoided. No significant negative impacts to the environment have been identified, it therefore does not need to rely on the presumption of IROPI. However, as part of the Proposed Development, an area of degraded cutover bog, measuring approximately 15.23 ha, will be built upon at the Wind Farm Site. This area does not include any protected habitats or species, however the Developer has chosen to off-set the habitat loss and generally improve the biodiversity of the local area through the implementation of the Biodiversity Enhancement and Management Plan (BEMP). The BEMP is focused on the rehabilitation of an area of cutover lowland blanket bog habitat of 9.8 ha which adjoins the southwest corner of the Wind Farm Site. The BEMP has two objectives:

- To preserve and rehabilitate an area of lowland blanket bog which has been partly cutover and drained in the past (hereinafter known as the 'peatland restoration area') to compensate for the loss of cutover bog as a result of the proposed wind farm development.
- To provide enhanced habitat for peatland associated species such as red grouse, meadow pipit (both Red-listed), skylark, the common frog and the common lizard, which may be affected by the loss of some cutover bog habitat as a result of the proposed project.

The BEMP will be underwritten by a detailed monitoring programme, which will allow for modifications to ensure that the objectives are being achieved throughout the lifetime of the Wind Farm.

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<sup>22</sup> *Ibid.* Article 3

<sup>23</sup> *Ibid.* Article 3(2)

The EIAR assessments, mitigation and compensation measures in the Habitat Enhancement Plan mean the Proposed Development is in line with requirements in the European Regulation on laying down a framework to accelerate the deployment of renewable energy indicating the Proposed Development should be given the priority of overriding public interest.

### 2.2.5 EU Hydrogen Policy

In July 2020, the European Commission published its Hydrogen Strategy For A Climate-Neutral Europe<sup>24</sup>. The strategy highlights that decarbonizing electricity is not enough to reach climate neutral, there are key sectors that cannot be reached in this way. Hydrogen is identified as being able to bridge this gap as;

- A feedstock, fuel or energy carrier and storage for renewable energy storage
- A replacement for fossil fuels in some across the industry, transport, power and buildings sectors
- A solution for hard to abate systems

The strategy states that; *“Large-scale deployment of clean hydrogen at a fast pace is key for the EU to achieve a higher climate ambition, reducing greenhouse gas emissions by minimum 50% and towards 55% by 2030, in a cost effective way.”*

The strategy includes an ambitious plan to achieve 6 GW of renewable hydrogen electrolyzers by 2024, and 40 GW by 2030 with production of up to 10 million tonnes of renewable hydrogen. From 2030 onwards, it sets out that renewable hydrogen will be deployed at a large scale across all hard-to-decarbonise sectors.

Almost all Member States have included plans for clean hydrogen in their National Energy and Climate Plans including Ireland (see section 2.3.3) and 14 Member States have included hydrogen in the context of their alternative fuels infrastructure national policy frameworks.

The Hydrogen Plant production capacity will be scaled up from a 10 MW electrolyser producing a maximum of 4,000 kg of green hydrogen each day to a maximum 80 MW electrolyser, producing a maximum of 31,200 kg of green hydrogen per day. This will also assist in achieving the European Hydrogen Strategies target of achieve 6 GW of renewable hydrogen electrolyzers by 2024, and 40 GW by 2030 with production of up to 10 million tonnes of renewable hydrogen.

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<sup>24</sup> European commission. (2020). A hydrogen strategy for a climate-neutral Europe <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0301&from=EN> Accessed 14/04/2023

In the European Commission's strategic vision for a climate-neutral EU (2018)<sup>25</sup>, the share of hydrogen in Europe's energy mix is projected to grow from the current less than 2% to 13-14% by 2050. The report highlights that hydrogen can be used to decarbonise various sectors including storage in the power sector to accommodate for variable energy sources, as an energy carrier in heating, transport and industry and, as a feedstock for industry such as steel, chemicals and e-fuels in those sectors that are most difficult to decarbonise.

In the European Parliament EU Hydrogen Policy report<sup>26</sup>, hydrogen is stated to be:  
*"Expected to play a key role in a future climate-neutral economy, enabling emission-free transport, heating and industrial processes as well as inter-seasonal energy storage."*

When produced with renewable energy, such as at the Proposed Development, hydrogen is identified as being an emissions free energy carrier. The report highlights that hydrogen is more cost effective than widespread electrification. It notes that almost all EU member states, including Ireland, have included hydrogen in their national energy and climate plans with around half having specific hydrogen objectives.

In December 2021, the EU Hydrogen and Decarbonised Gas Market Package<sup>27</sup> was published. This is a set of legislative proposals to decarbonise and strengthen the resilience of the EU gas system by facilitating the uptake of renewable and low carbon gases, including hydrogen. One of the main aims is to establish a market for hydrogen, by creating the right environment for investment, and enabling the development of dedicated infrastructure, including that for trade with third countries.

The European Commission has published the proposed Alternative Fuels Infrastructure Regulation (AFIR)<sup>28</sup> and: Fit for 55 package<sup>29</sup> which sets out refuelling requirements for hydrogen infrastructure. Under the AFIR proposal, Ireland would be required to provide publicly available refuelling points of 350 bars and 700 bars every 200 km on the core TEN-T network.

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<sup>25</sup>European Commission. (2018). A Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0773> Accessed 14/04/2023

<sup>26</sup> European Parliament. (2021). EU hydrogen policy Hydrogen as an energy carrier for a climate-neutral economy. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/689332/EPRS\\_BRI\(2021\)689332\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/689332/EPRS_BRI(2021)689332_EN.pdf) Accessed 14/04/2023

<sup>27</sup> EU. (2021). Hydrogen and decarbonised gas market package. [https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/hydrogen-and-decarbonised-gas-market-package\\_en](https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/hydrogen-and-decarbonised-gas-market-package_en) Accessed 14/04/2023

<sup>28</sup> European Commission. (2021). REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the deployment of alternative fuels infrastructure, and repealing Directive 2014/94/EU of the European Parliament and of the Council [https://eur-lex.europa.eu/resource.html?uri=cellar:dbb134db-e575-11eb-a1a5-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:dbb134db-e575-11eb-a1a5-01aa75ed71a1.0001.02/DOC_1&format=PDF) Accessed 19/04/2023

<sup>29</sup> European Council. (2022) Fit for 55 package: Council adopts its position on three texts relating to the transport sector. <https://www.consilium.europa.eu/en/press/press-releases/2022/06/02/fit-for-55-package-council-adopts-its-position-on-three-texts-relating-to-the-transport-sector/> Accessed 14/04/2023

On 16<sup>th</sup> March 2023, the Commission has set out new plans to stimulate and support investment in sustainable hydrogen production through a European Hydrogen Bank (EHB). The EHB is aimed at accelerating investment and bridging the investment gap for the EU to reach its ambitious REPowerEU targets of producing domestically 10 million tonnes (mt) of renewable hydrogen by 2030, coupled with 10 mt of imports. The EHB will help address the initial financial challenges in order to create an emerging renewable hydrogen market. It will also have an international dimension to facilitate renewable hydrogen imports to the EU. The Commission is intending for the EHB to cover and lower the cost gap between renewable hydrogen and fossil fuels for early projects. This will be achieved through an auction system for renewable hydrogen production to support producers through a fixed price payment per kg of hydrogen produced for a maximum of 10 years of operation.

### 2.3 National Policy

The EU Governance of the Energy Union and Climate Action Regulation 2018/1999 came into force when it was published in the Official Journal of the EU 11 December 2018. It requires Member States to develop integrated national energy and climate plans to cover:

1. Security, Solidarity and Trust – Working closely with Member States to diversify Europe's sources of energy and ensure energy security.
2. A fully-integrated internal energy market – Energy should flow freely across the EU, without technical or regulatory barriers. This would enable energy providers to compete freely and promote renewable energy while providing the best energy prices.
3. Energy Efficiency – Improving energy efficiency to reduce the EU's dependence on energy imports, cut emissions and drive jobs and growth.
4. Climate Action – Putting in place policies and legislation to cut emissions, moving towards a low-carbon economy and fulfilling the EU's commitments to the Paris Agreement on climate change.
5. Research, Innovation and Competitiveness – Supporting research and innovation in low-carbon and clean energy technologies which can boost the EU's competitiveness.

**The National Development Plan 2021-2030** guides strategic development and infrastructure investment at the national level and sets out strategic investment priorities. The plan includes 'climate action' as one of its Strategic Investment Priorities and advises that new energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system.

Particularly relevant the Proposed Development is National Strategic Outcome 13; Transition to a Climate-Neutral and Climate-Resilient Society. This object includes the objective to diversify away from fossil fuels to green energy, including wind, wave, solar, biomass, biofuels, biogas and hydrogen.

**The National Planning Framework** is a high-level strategy that provides the sustainable framework to guide where development and investment occurs in Ireland up until 2040. It recognises the need to move toward a low carbon and climate resilient society, and it emphasizes that rural areas have a strong role to play in securing a sustainable renewable energy supply. It seeks to harness the country's renewable energy potential, achieve a transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050, and promote new energy systems & transmission grids.

The most relevant policies for consideration in the National Planning Framework (NFP) are:

**National Policy Objective 21**

*“Enhance the competitiveness of rural areas by supporting innovation in rural economic development and enterprise through the diversification of the rural economy into new sectors and services, including ICT based industries and those addressing climate change and sustainability.”*

The Proposed Development diversifies the agricultural land use at the Hydrogen Plant Site, which will produce a zero-carbon, sustainable fuel to displace fossil fuels, contributing to addressing climate change.

**National Policy Objective 54**

*“Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions.”*

National Policy Objective 54 has been fulfilled by the establishment of national, regional and local policy to facilitate renewables. By demonstrating accordance with these policies, the Proposed Development will therefore contribute to the achievement of the national policy objective.

**National Policy Objective 55**

*“Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050.”*

The Wind Farm Site is designated in a 'Preferred' area for wind farms in the Mayo CDP, the location has been assessed as having suitable wind resources and has been assessed against each of the topics contained in the EIAR and adverse residual environmental impacts are avoided in line with National Policy Objective 55 of the NFP. It is clear from the findings of the EIAR and the NIS that the Proposed Development is an appropriate location.

### 2.3.1 Climate Action and Low Carbon Development Act 2021

The Climate Action and Low Carbon Development (Amendment) Act 2021 commits Ireland to reach a legally binding target of net-zero emissions no later than 2050, and a cut of 51% by 2030 (compared to 2018 levels).

It establishes a framework with clear, legally binding targets and commitments, and ensures the necessary structures and processes are embedded on a statutory basis to achieve Ireland's national, EU and international climate goals and obligations in the near and long term.

The Act includes the following key elements:

- It places on a statutory basis a 'national climate objective', which commits Ireland to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally-sustainable and climate-neutral economy
- It embeds the process of carbon budgeting into law. Government are required to adopt a series of economy-wide five-year carbon budgets, including sectoral targets for each relevant sector, on a rolling 15-year basis, starting in 2021
- Actions for each sector will be detailed in the Climate Action Plan, updated annually
- A National Long Term Climate Action Strategy will be prepared every five years

A recent report from the EPA Ireland's Greenhouse Gas Emissions Projections<sup>30</sup> found that Ireland is not on track to meet the 51 per cent emissions reduction target (by 2030 compared to 2018), indicating that further measures are needed.

### 2.3.2 Climate Emergency

On 29<sup>th</sup> November 2019 the European Parliament declared a climate emergency ahead of the UN COP 25 in Madrid in December 2019. In May 2019, the Oireachtas declared a "climate emergency" in an amendment to the report 'Climate Action: A cross-party consensus for action' which followed the recommendations of the Citizens Assembly on Climate Action. There then followed the publication of the Cross-Departmental Climate Action Plan 2019 on 17<sup>th</sup> June 2019 this was revised in 2021.

### 2.3.3 The Climate Action Plan 2023

On the 21<sup>st</sup> December 2022 the Climate Action Plan 2023 (CAP2023) was published to replace the 2021 Plan and sets out a detailed sectoral roadmap designed to deliver a 51%

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<sup>30</sup> EPA 2023. <https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/>



reduction in greenhouse gas (GHG) emissions by 2030 and make Ireland a zero-carbon economy by 2050. The plan sets an ambitious 80% target for electricity production from renewable sources by 2030 and highlights the need to remove barriers to the development of renewables, including onshore wind. It notes that electricity will play an important role in the decarbonisation of other sectors through electrification, including transport, heating, and industry. The goal in the electricity sector is to make Ireland less dependent on imported fossil fuels.

It states that since 2021, there have been significant increases in prices in the international fossil fuel markets, attributed to increased demand as post-COVID 19 recovery and the disruption to traditional energy supplies following the Russian invasion of Ukraine. This underlines the importance of Ireland eliminating dependency on fossil fuels and that an increase in renewable energy generation, along with supporting system flexibility is necessary for our future energy security.

The targets set out in the Climate Action Plan 2023 envisages a radical step-up of our existing targets to meet the required level of emissions reduction by 2030, including:

- An increase in electricity generated from renewable sources to 80%
- Complete the phase-out of coal and peat-fired electricity generation
- 75% reduction in overall greenhouse gas emissions
- Achieve net zero emissions no later than 2050
- Increase onshore wind to 9 GW; As of May 2022 this was 4.3 GW, leaving a shortfall of 4.7 GW to be achieved in the next 8 years.
- At least 2.1 TWh consumption of zero emission gas (which includes green hydrogen) for industrial heating
- Up to 0.7 TWh of renewable gas to aid in the decarbonisation of residential heating

The demand for electricity in Ireland is predicted to grow by 19-50% in the next decade. The plan highlights that additional electricity generation will be a critical enabler to meet this demand.

Green hydrogen is referred to as a zero emissions gas and renewable gas and described as a critical component for Ireland's energy system. It is identified in the Climate Action Plan as having the potential to:

- Facilitate the increased integration of energy end-use and supply sectors with one another (sector coupling).
- Minimise the cost of decarbonisation.
- Help to match electricity demand with renewable energy generation.

- Be used in the electricity sector to provide zero carbon dispatchable electricity.
- Provide seasonal storage of energy to replace today's fossil fuel storage systems.
- Help to abate carbon and improve energy efficiency in industry especially in high temperature processes.
- Used where alternative energy sources are not feasible.
- Accelerate renewable energy generation by capturing surplus renewable energy.

The CAP2023 notes that a large amount of the emissions from industry arise from the demand for heat in manufacturing. Decarbonised gases, such as green hydrogen are identified as being able to provide a decarbonisation pathway for combustion emissions arising from medium and high temperature processes.

The CAP2023 calls for a significant cut in transport emissions by 2030, which includes all replacements for bus and commuter rail vehicles to be low or zero carbon. It also includes actions related to progressing research including a study reviewing the profile, sustainability and supply of renewable transport fuels in Ireland.

The Hydrogen Plant production capacity will be scaled up from a 10 MW electrolyser producing 4,000 kg of green hydrogen each day to a maximum 80 MW electrolyser, producing a maximum of 31,200 kg of green hydrogen per day. This will directly contribute between 0.05 and 0.39 TWh to the CAP2023 targets of 2.1 TWh renewable gases for industrial heating and 0.7 TWh of renewable gases for residential heating. This will assist in the transition away from fossil fuels, reducing the emissions in hard to abate sectors such as high heat industry and transport as identified in the CAP2023. Based on the displacement of diesel HGVs, the maximum electrolyser capacity could result in the avoidance of 49,883 tonnes of CO<sub>2</sub> annually.

A recent report from the EPA Ireland's Greenhouse Gas Emissions Projections<sup>31</sup> found that Ireland is not on track to meet the 51 per cent emissions reduction target, based on the measures in the CAP2023, indicating that further measures still need to be identified and implemented to achieve this goal.

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<sup>31</sup> EPA 2023. <https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/> Accessed 07/06/2023

### 2.3.4 National Energy and Climate Plan 2021-2030

The National Energy and Climate Plan (ENCP)<sup>32</sup> is a ten-year integrated document mandated by the European Union to each of its member states in order for the EU to meet its overall greenhouse gases emissions targets.

The ENCP establishes key measures to address the five dimensions of the EU Energy Union:

- 1) Decarbonisation : GHG emissions and removals and Renewable Energy
- 2) Energy efficiency
- 3) Energy security
- 4) Internal energy market
- 5) Research, innovation and competitiveness

Key, relevant renewable energy objectives include:

- Ireland has established an objective of achieving a 34% share of renewable energy in energy consumption by 2030.
- Increase electricity generated from renewable sources to 70% (note this target has been increased to 80% in the CAP2023), underpinned by the Renewable Electricity Support Scheme (RESS).
- Streamline consenting and connection arrangements.
- Phase-out of coal and peat-fired electricity generation
- Increase onshore wind capacity by up to 8.2 GW (note increase to 9 GW in the CAP2023)

Key, relevant energy security objectives include:

- Support efforts to increase indigenous renewable sources in the energy mix, including wind, solar and bioenergy.
- Facilitate infrastructure projects, including private sector commercial projects, which enhance Ireland's security of supply and are in keeping with Ireland's overall climate and energy objectives

According to a report published by the Environmental Protection Agency (EPA) in June 2023, Ireland will achieve a reduction of only 29% in its greenhouse gas emissions by 2030, far short of a legally-binding target of 51%. Almost all sectors are on a trajectory to exceed

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<sup>32</sup> Department of Communications, Climate Action and Environment. (2021). National Energy and Climate Plan [https://energy.ec.europa.eu/system/files/2020-08/ie\\_final\\_necp\\_main\\_en\\_0.pdf](https://energy.ec.europa.eu/system/files/2020-08/ie_final_necp_main_en_0.pdf) Accessed 19/04/2023

their national ceilings – including agriculture, industry, electricity and transport. The EPA report warns that the 2030 targets can only be reached by “implementing policies that deliver emission reductions across all sectors of the economy in the short term”.<sup>33</sup>

The ENCP highlights that green hydrogen has the potential to play a key role in sectors which are difficult to decarbonise with existing technologies, such as heavy vehicles, industry and maritime traffic. It notes that hydrogen production could provide a variable demand that utilises renewable electricity and can help to decarbonise the natural gas grid, and that existing combined cycle gas turbines could be reconfigured for hydrogen and potentially hydrogen turbines could be developed as backups for intermittent renewables.

It states that:

*“Ireland supports further exploration of hydrogen to support the integration of variable renewable electricity generation in particular for electrically isolated regions and in order to **mitigate curtailment of wind energy.**”*

The ENCP emphasises that the national targets relating to increasing renewable electricity mean that at times electrical grid will not be able to use all this renewable generation so having the option to produce green hydrogen will help enable to fully utilise renewable resources. This is noted to have the potential to reduce the overall cost of reaching decarbonisation targets.

The Proposed Development is in an area of grid constraint, the Hydrogen Plant will enable surplus energy produced by the Wind Farm to be captured.

### 2.3.5 National Energy Security Framework

In April 2022, the Government of Ireland issued the National Energy Security Framework<sup>34</sup> in response to the European Commission’s REPowerEU action statement. It provides a single overarching and initial response to address Ireland’s energy security needs in the context of the war in Ukraine. It sets out how Ireland is seeking to phase out dependency on Russian gas, oil and coal imports as soon as possible, emphasising throughout the urgency of the need to secure Ireland’s energy supply.

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<sup>33</sup> Environmental Protection Agency. (2023) Ireland’s Greenhouse Gas Emissions Projections.

[https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-GHG-Projections-2022-2040\\_Finalv2.pdf](https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-GHG-Projections-2022-2040_Finalv2.pdf)  
Accessed 06/06/2023

<sup>34</sup> Government of Ireland. (2022) National Energy Security Framework. <https://assets.gov.ie/221399/86cb99f5-58e3-4821-bc4c-e1bb1fa706fb.pdf> Accessed 14/04/2023

It is focussed on three areas of work:

- Reducing demand for fossil fuels, which would seek to reduce overall demand for oil, natural gas and coal in Ireland.
- Replacing fossil fuels with renewables, which would seek to reduce the use of gas, oil and coal in Ireland by replacing it with renewable energy sources such as wind energy, solar energy or bioenergy.
- Diversifying fossil fuel supplies, which would seek to replace any Russian supplies of gas, oil and coal (direct or indirect) with supplies from other sources.

The framework highlights the impact of the Russian invasion of Ukraine on energy security, consumer price wise in the short term and how and where energy is sourced to ensure long term system resilience. It notes that:

*“The war has highlighted key dependencies in our energy system which can no longer be relied on and has led to affordability issues for many consumers and businesses”*

The framework builds on the idea of energy security as the uninterrupted availability of energy sources at an affordable price and is a response to the challenges of ensuring the ongoing and long-term security of affordable energy supply.

Response 25 includes the following:

*“New renewable energy generation including solar, onshore wind and offshore wind projects require timely connections to the electricity grid. The system for allocating and delivering these connections must be designed and resourced to operate efficiently. Policy should prioritise projects with the highest chance of early delivery and greatest impact on carbon emissions through the connection arrangements and the Renewable Electricity Support Scheme. The potential for privately funded and hybrid connections also needs to be realised. Speedy delivery of market arrangements for zero carbon system services and system flexibility (e.g. batteries) to support higher levels of renewables output is also critical.”*

The Firlough Wind Farm and Hydrogen Plant provides a hybrid connection which enables a second route to market for renewable energy by producing green hydrogen alongside wind energy.

The new framework underlines the importance of new renewable energy generation projects, such as the Firlough Wind Farm and Hydrogen Plant, in securing Ireland's energy supply in light of the war in Ukraine and resulting energy supply issues.

In October 2022, the Department of the Environment, Climate and Communications presided over a public consultation on the review of the security of energy supply of Ireland's electricity and gas systems. Over 400 submissions were received by the Department and the related report is due to be published in 2023.

The consultation focused on the period between now and o 2030, but also in the context of a sustainable transition to net zero emissions by 2050. It considered potential risks to both Ireland's natural gas and electricity supplies and examined a range of measures to mitigate these risks, including the need for additional capacity to import energy, to reduce energy use, energy storage, fuel diversification and renewable gases (such as biomethane and hydrogen).

Two of the potential mitigation options which were suggested included a gas mitigation package involving the injection of renewable gas (including hydrogen) into the national grid – as well as the conversion of a gas-fired power plant to hydrogen.

### **2.3.6 Renewable Fuels for Transport Policy Statement**

The Renewable Fuels for Transport Policy Statement<sup>35</sup> establishes a pathway for transport fuels to achieve the target of a 51% reduction in emissions by 2030 as set out in the Climate Action Plan and European obligations for renewable energy supply and use in transport. It sets out a roadmap for the supply and use of renewable fuels in transport, including hydrogen and highlights these renewable fuels offer a cleaner alternative to petrol and diesel especially in HGVs and buses. Green hydrogen and synthetic fuels produced from green hydrogen, classified as "*Renewable Fuels of Non-Biological Origin*" are anticipated to be eligible for credits under the Biofuels Obligation Scheme.

The Proposed Development, by producing green hydrogen can contribute to the decarbonisation of the Irish transport industry as specified in the Renewable Fuels for Transport Policy Statement. The National Transport Authority (NTA) is also due to complete its hydrogen bus pilot study in Q4 2023 as part of the Department of the Environment, Climate and Communications' drafting and implementation of a long-term strategy for the decarbonisation of the long-distance bus and wider transport sectors.

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<sup>35</sup>Government of Ireland (2021). Renewable Fuels for Transport Policy Statement <https://www.gov.ie/en/policy-information/168c6-renewable-fuels-for-transport-policy-statement/> Accessed 19/4/2023

### 2.3.7 Ireland's Hydrogen Strategy

The National Energy Security Framework includes Response 30, which outlines a commitment to prioritise the development of a hydrogen strategy for Ireland led by the Department of the Environment, Climate and Communications which was due for initial implementation in Q3 2022 and subsequently delayed to Q2 2023 but has not at the time of writing been published (June 2023).

In July 2022, the Government of Ireland published the "Consultation on Developing a Hydrogen Strategy for Ireland<sup>36</sup>". It sets out the context of hydrogen within EU policy and outlines the EU and a number of other member states hydrogen strategies. Chapter 5; Hydrogen in Ireland, notes Irelands current position with hydrogen production and mentions that the Mercury Firlough Wind Farm is in the planning stage.

It states that:

*"Hydrogen as a method of storing electricity from variable renewable generation may be needed to address the challenges associated with system stability, seasonal wind variability and curtailment in order to achieve the 2030 target of up to 80% of electricity demand to come from variable renewable sources."*

The consultation identified Irelands considerable potential for green hydrogen production, noting its excellent offshore and onshore wind potential. It highlights that wind energy co-location with an electrolyser could potentially make locations viable where previously network constrains impacted onshore wind projects.

The Hydrogen Plant, collocated with the Wind Farm could provide a viable off-take and route to market for renewable energy that otherwise would have been lost due to curtailment and grid constraint in line with the Government's Consultation on Developing a Hydrogen Strategy for Ireland.

## 2.4 Regional policy

### 2.4.1 The Regional Spatial and Economic Strategy (RSES) for The Northern and Western Region

The Regional Spatial and Economic Strategy (RSES) for the Northern and Western Region, adopted on the 24<sup>th</sup> January 2020, provides a long-term regional level strategic

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<sup>36</sup> Government of Ireland. (2022) Consultation on developing a hydrogen strategy for Ireland <https://www.gov.ie/en/consultation/5c087-consultation-on-developing-a-hydrogen-strategy-for-ireland/#:~:text=The%20Climate%20Action%20Plan%202021,for%20industry%2C%20and%20electricity%20generation> Accessed 19/4/2023.

planning and economic framework, to support the implementation of the National Planning Framework, for the future physical, economic and social development for the Northern and Western Region.

The RSES highlights the challenges the region will face with the changing climate and emphasises the importance of producing renewable energy to tackle climate change, meet predicted growth in demand and provide energy security. The RSES recognises that the region has a huge potential for growth of renewables and supports opportunities for onshore wind. It recognises renewable energy as an important contributor to the economy and employment in the region. Key policy are in **Table 2.1**.



**Table 2.1: Key Planning Policy Objectives from the RSES**

Policy no.	Policy Details	Development contribution
RPO 4.16	<p>The NWRA shall co-ordinate the identification of potential renewable energy sites of scale in collaboration with Local Authorities and other stakeholders within 3 years of the adoption of the RSES. The identification of such sites (which may extend to include energy storage solutions) will be based on numerous site selection criteria including environmental matters, and potential grid connections.</p>	<p>The Wind Farm Site is designated in a 'Preferred' area for wind farms in the Mayo Renewable Energy Strategy 2011-2022.</p>
RPO 4.17	<p>To position the region to avail of the emerging global market in renewable energy by:</p> <ul style="list-style-type: none"> <li>• Stimulating the development and deployment of the most advantageous renewable energy systems.</li> <li>• Supporting research and innovation</li> <li>• Encouraging skills development and transferability</li> <li>• Raising awareness and public understanding of renewable energy and encourage market opportunities for the renewable energy industry to promote the development and growth of renewable energy businesses</li> <li>• Encourage the development of the transmission and distribution grids to facilitate the development of</li> </ul>	<p>The Proposed Development includes the deployment of two renewable energy systems which enable wind energy to be captured and stored via green hydrogen. This is an advantageous renewable energy system that maximised the use of the available renewable energy resources and strengthens the Irish energy network and allows energy production to continue even when the grid cannot accept it.</p> <p>Hydrogen production is a new and growing sector, research into green hydrogen is ongoing at several organisations across Ireland including; Skillnet Ireland, IT Sligo, University College Dublin and Hydrogen Ireland. By producing hydrogen the Proposed Development contributes to skills development and research. The Developer is working with Dublin City University to</p>

Policy no.	Policy Details	Development contribution
	renewable energy projects and the effective utilization of the energy generated from renewable sources having regard to the future potential of the region over the lifetime of the Strategy and beyond.	help advance research/technological knowledge of hydrogen technology across a range of disciplines including engineering, data science and climate sustainability. There is a plan to establish apprentice programmes for electricians, logistics management, health and safety officers and other technical specialities.
RPO 4.18	Support the development of secure, reliable and safe supplies of renewable energy, to maximise their value, maintain the inward investment, support indigenous industry and create jobs.	The Proposed Development will locally produce a reliable and safe supply of renewable energy. The Developer is an Irish company, focused on producing renewable energy in the west of Ireland. The Proposed Development will create jobs during construction, operation and decommissioning.
RPO 8.1	The Assembly support the development of a safe, secure and reliable electricity network and the transition towards a low carbon economy centred on energy efficiency and the growth projects outlined and described in this strategy.	The Proposed Development will contribute to the Regions electricity network by producing renewable low carbon electricity.

## 2.4.2 Mayo County Development Plan 2022-2028

The Wind Farm Site is located in County Mayo, the Hydrogen Plant Site is located in County Sligo, adjacent to the County Mayo border. The current Mayo County Development Plan is the 2022-2028 (the MCDP) plan. It sets out the strategic framework for sustainable and planned economic and social development in the county. The plan strongly emphasises the urgent and pressing issue of climate change and the impacts it will have on County Mayo and its people. It underlines the critical need to phase out fossil fuels and provide safe, secure and renewable electricity supply to enable sustainable economic growth.

The MCDP acknowledges that some improvements are needed to the transmission network to harness the renewable potential of the county. It notes that there is a potential for Co. Mayo to produce wind energy by products, such as green hydrogen, enabling the county to harness this emerging by-product market, advance socio-economic growth and help transition to a low carbon county. The plan says that the transport sector is the second biggest contributor to GHG emissions in the county. Transitioning transport to a low carbon energy efficient sector is a strategic aim of the plan. This includes initiatives to increase use of renewable powered transport links.

The MCDP links the economic growth of both Ireland and Mayo is to the provision of secure energy supply, and commits that Co. Mayo will endeavour to play its part in promoting more sustainable renewable electricity generation. The MCDP notes that Co. Mayo's current contribution to renewable energy includes 266 MW (Q1 2020) of wind energy generated from 15 wind farms, which is approximately 6% of Ireland's overall wind energy production. It highlights that the development of the extant permissions for wind and solar energy projects (such as the Wind Farm Site) in the county will significantly add to Mayo's renewable energy output.

The climate action objectives include a commitment to facilitating the “*development and exploitation of **all** appropriate renewable energy sources at suitable locations within the county, where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity or local amenities*”. This underlines the commitment of the new plan to addressing climate change.

The Proposed Development exploits wind energy to produce renewable electricity and green hydrogen and it is clear from the findings of the EIAR and the NIS that the Proposed Development is an appropriate location. Key planning policies from the Mayo County Development Plan are shown in **Table 2.2**.

**Table 2.2: Key Planning Policies from The Mayo County Development Plan 2022 – 2028**

Policy No.	Policy Details	Development contribution
SO 1	To plan for a population increase in County Mayo during the plan period of 15,200 persons.	The Proposed Development will provide renewable electricity and green hydrogen, which could attract new enterprise to the county, bringing jobs, economic growth and population increases. It will also help to meet the increase in energy demand that will follow a population increase. This is examined in more detail in Chapter 4: Population and Human Health.
SO 3	To support employment, encourage enterprise, maximise investment and create an environment that will establish Mayo as a premier investment location, capitalising on the county's existing and emerging key economic drivers, such as the Coastal Corridor and Marine Environment, the Atlantic Economic Corridor, Ireland West Airport Knock (IWAK), the IWAK Strategic Development Zone and the Economic Growth Clusters of Ballina/North Mayo, Castlebar-Westport, Ballinrobe, Ballyhaunis and Claremorris, and Ballina-Killala.	The Proposed Development is a renewable energy enterprise, investing up to €200 million into County Mayo. It will provide renewable electricity and green hydrogen in the vicinity of the IWAK Strategic Development Zone and Economic Growth Clusters. This could attract new enterprise to the county, bringing jobs, economic growth and population increases.
SO 4	To transition to a low carbon and climate resilient county, by promoting sustainable settlement patterns, the integration of land-use and sustainable modes of transport, encourage walking, cycling and public transport, increasing reliance on green energy sources, encouraging urban and rural communities to facilitate effective change and by building climate change resilience and	The renewable energy that the Proposed Development will generate will help support Co. Mayo's low carbon transition by enabling an increase in the reliance on green energy sources. It will also help to meet the additional electrical demand created by the electrification of transport. The provision of a second green energy source; green hydrogen, will assist in

Policy No.	Policy Details	Development contribution
	climate action into all services and functions of Mayo County Council.	decarbonising transport such as HGVs and public transport.
EDO 66	To support and facilitate renewable energy initiatives that facilitate a low carbon transition.	The Proposed Development will provide renewable electricity and green hydrogen which will assist in County Mayo's low carbon transition.
MTP 3	To support and facilitate any 'Smarter Travel' initiatives that will improve sustainable transportation within the county, including public transport, electric and hybrid vehicles, car clubs, public bike schemes, improved pedestrian and cycling facilities, as appropriate.	The renewable energy that the Proposed Development will generate will to meet the additional electrical demand created by the electrification of transport. The provision of a second green energy source; green hydrogen, will assist in decarbonising heavy transport such as HGVs and bus services.
INO 36	To facilitate the progression of and implement improvements to the existing electricity networks and facilitate the development of new transmission infrastructure projects in accordance with EirGrid's Implementation Plan Strategy 2020-2025 (or any superseding strategy) that might be brought forward during the lifetime of this plan.	The Proposed Development will contribute to the production of renewable electricity in the county. Part of the Wind Farm Substation and Grid Connection will become assets of the national grid under the management of EirGrid.
INO 37	To ensure the provision, where feasible, of electricity cables located underground.	The internal Wind Farm Site cabling, Interconnector and Grid Connection will be underground.
CAP 1	To support and enable the implementation and achievement of European and national objectives for climate adaptation and mitigation as detailed in the following documents, taking into account other provisions of the Plan (including those relating to	The Proposed Development meets the objectives set down in policy CAP23 by providing much needed renewable energy to meet the Government 80% renewable electricity target by 2030 and targets relating to renewable gases.

Policy No.	Policy Details	Development contribution
	<p>land use planning, energy, sustainable mobility, flood risk management and drainage);</p> <ul style="list-style-type: none"> <li>• Climate Action Plan (2019 and any subsequent versions);</li> <li>• Relevant provisions of any Sectoral Adaptation Plans prepared to comply with the requirements of the Climate Action and Low Carbon Development Act 2015, including those seeking to contribute towards the National Transition Objective, to pursue, and achieve, the transition to a low carbon, climate resilient and environmentally sustainable economy by the end of the year 2050; and Mayo Council Climate Change Adaptation Strategy (2019-2024 and any subsequent versions)</li> </ul>	<p>The Climate Action and Low Carbon Development Act 2021 Places on a statutory basis a 'national climate objective', which commits Ireland to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy. By contributing to the decarbonization of energy supply by generating renewable energy and the environmental benefits this brings, the Proposed Development assists Ireland in reaching this goal.</p>
CAP 2	<p>To support the National Climate Change Strategy and methods of reducing anthropogenic greenhouse gases on an ongoing basis through implementation of supporting objectives in this Plan, particularly those supporting use of alternative and renewable energy sources, sustainable transport, air quality, coastal zone management, flooding and soil erosion and promotion of the retention of, and planting of trees, hedgerows and afforestation, subject to no significant adverse effects on the environment including the integrity of the Natura 2000 network.</p>	<p>The renewable energy that the Proposed Development will generate will help support Ireland's low carbon transition and reduce anthropogenic greenhouse gases and improve air quality by displacing fossil fuels. Green hydrogen, produced using renewable electricity is an alternative, renewable fuel that could help to develop a sustainable transport sector in County Mayo.</p> <p>The NIS concludes on the best available scientific evidence that it can be demonstrated objectively that no elements of the Proposed Development will result in a significant adverse effect on the integrity or on the Qualifying Interests/Special</p>

Policy No.	Policy Details	Development contribution
		Conservation Interests of any relevant European site (which include Natura 2000 sites), either on their own or in-combination with other plans or projects, in light of their conservation objectives.
CAP 4	To support local, regional, national and international initiatives for climate adaptation and mitigation and to limit emissions of greenhouse gases through energy efficiency and the development of renewable energy sources, which make use of all natural resources, including publicly owned lands, in an environmentally acceptable manner.	<p>The Proposed Development will make a significant and meaningful contribution to renewable energy targets in the county and contributes to mitigating climate change by reducing emissions in the energy and transport sectors. This is Fully assessed in Chapter 10: Air and Climate.</p> <p>EIAR Chapters 5, 6 and 7 assesses the potential impact of the Proposed Development on terrestrial ecology, aquatic ecology and ornithology respectively. Peatland restoration at the Wind Farm Site and a Habitat Enhancement Plan has been developed and will provide long term ecological conservation. The findings of the EIAR demonstrate that the environment can accommodate the Proposed Development in an environmentally acceptable manner.</p>
CAP 6	To support the transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050, by way of reducing greenhouse gases, increasing renewable energy, and improving energy efficiency and supporting nature-based solutions to climate adaptation and mitigation that provides co	By generating renewable energy and displacing fossil fuels the Proposed Development helps to reduce carbon emissions and other greenhouse gases and mitigate climate change, supporting County Mayo's transition to a competitive, low carbon, climate-resilient and environmentally sustainable

Policy No.	Policy Details	Development contribution
	benefits.	economy by 2050.
CAP 9	<p>To support Ireland’s renewable energy commitments outlined in national policy by facilitating the development and exploitation of all appropriate renewable energy sources at suitable locations within the county, where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity or local amenities, so as to provide for further residential and enterprise development within the county.</p>	<p>The Proposed Development meets the objectives set down in policy CAP 9, by providing renewable energy where there is a pressing need to meet the national 80% renewable electricity target by 2030 as set out in the Climate Action Plan 2023. The Wind Farm Site has excellent wind resources as evidenced by site investigations and the operational, adjacent Carrowleagh Wind Farm and the Existing Permission. It is clear from the findings of the EIAR and the NIS that the Proposed Development is a suitable location.</p> <p>Impacts to the Environment are assessed throughout the EIAR. Chapter 9; Hydrology and Hydrogeology assesses water quality, the findings demonstrate the environment can accommodate the Proposed Development without giving rise to significant impacts to hydrology or hydrogeology, including water quality.</p> <p>Biodiversity; This is fully assessed in Chapter 5: Terrestrial Ecology, Chapter 6: Aquatic Ecology and Chapter 7: Ornithology. The findings demonstrate that the environment can accommodate the Proposed Development without giving rise to significant biodiversity impacts.</p> <p>Local Amenities and Landscape; In Chapter 12 of the EIAR the Landscape and Visual assessment concluded that the Proposed</p>



Policy No.	Policy Details	Development contribution
		<p>Development would not give rise to any significant landscape or visual amenity effects (including residential amenity). The EIAR L&amp;V chapter also considered effects upon “views and prospects” included in the Mayo County Development Plan 2022-2028. The findings demonstrate that the landscape can accommodate the Proposed Development without giving rise to significant effects.</p> <p>Heritage; It was found that there are no recorded monuments within the site boundaries and therefore direct effects are considered unlikely. No significant indirect effects have been predicted. The findings demonstrate that the environment can accommodate the Development without giving rise to significant impacts to cultural heritage. This is Fully assessed in Chapter 14: Cultural Heritage.</p> <p>Further enterprise development; In Chapter 4: Population and Human Health the socio-economic impacts of the development are assessed. The Proposed Development has been assessed as having the potential to result in effects of a slight positive, long-term impact overall.</p>
CAO 1	To support and advance the provision of renewable energy resources and programmes in line with the Government’s National Renewable Energy Action Plan (NREAP), the Governments’	The Proposed Development provides two renewable sources of energy, this is in line with the Government’s national policy as set out in section 2.3.

Policy No.	Policy Details	Development contribution
	Energy White Paper “Ireland's Transition to a Low Carbon Energy Future” (2015-2030) and any other relevant policy adopted during the lifetime of this plan.	
CAO 2	To support, facilitate and advance the achievement of the goals, objectives and actions of Climate Ready Mayo, the Climate Change Adaptation Strategy for County Mayo.	The Proposed Development supports this policy by contributing to renewable energy production and emissions reductions, helping to mitigate climate change and enable Ireland to be more climate resilient.
CAO 7	To recognise, support and facilitate Ballina to become Ireland's Greenest Town by 2025.	<p>The Proposed Development is within 12 KM of Ballina. John Duffy, Mercury's Managing Director, is an active member of the Ballina community and has worked to ensure that the local community has been kept up to date, both in terms of the key milestones of the Proposed Development, and in terms of the massive potential that green hydrogen could bring to the local community and economy.</p> <p>Internationally, most hydrogen that is produced is used very close to where it is first produced. The Proposed Development will aim to ensure that the local community reaps the benefits from locally produced green hydrogen so that local businesses and residents can make the green and just transition towards renewable energy usage. By doing this, Mercury Renewables believes that the local community can become a sustainable energy champion in Ireland's journey towards achieving its</p>

Policy No.	Policy Details	Development contribution
		<p>legally binding climate action targets.</p> <p>The Proposed Development will also assist local businesses involved with industrial heat processes to develop a pathway for them to reduce their dependency on fossil fuels.</p> <p>The Proposed Development aims to create green jobs in wind and hydrogen energy generation and transportation. The Proposed Development produces renewable energy which can be used locally in Ballina.</p>
REP 1	<p>To support Ireland's renewable energy commitments outlined in national policy by facilitating the development and exploitation of a range of renewable energy sources at suitable locations within the county, where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity or local amenities to ensure the long term sustainable growth of the county.</p>	<p>The Proposed Developments contribution to this objective is outlined in objective CAP 9.</p>
REP 3	<p>To actively encourage and support the sustainable development, renewal and maintenance of energy generation infrastructure in order to maintain a secure energy supply, while protecting the landscape, archaeological and built heritage and having regard to the provisions of the Habitats Directive.</p>	<p>The Proposed Development supports this policy by contributing to renewable energy production. A full EIA has been undertaken on the Proposed Development to maximise positive benefits and minimise potential negative impacts on the environment, including built heritage while having regard to the Habitats Directive.</p>

Policy No.	Policy Details	Development contribution
REP 4	To ensure that developers of proposed large-scale renewable energy projects carry out community consultation in accordance with best practice and commence the consultation at the initiation of project planning	Significant and meaningful consultation with the public has been undertaken for the Proposed Development. This includes; A virtual Public Consultation, two in person local Public Information Days, a project website, leaflets and newsletters delivered to local residents, radio interviews, provision of two community liaison officers, advertisements for the Public Information Days in the Western People and the Sligo Champion and letters to stakeholders. The full details can be found in Chapter 1: Introduction. The public consultations have resulted in changes to the project as outlined in Chapter 3; Alternatives Considered.
REP 5	To promote the use of efficient energy storage systems and infrastructure that supports energy efficiency and reusable energy system optimization, subject to the proper planning and sustainable development of the area and consideration of environmental and ecological sensitivities.	Green hydrogen represents an opportunity to harness and store excess renewable energy that cannot be facilitated by the grid, improving the efficiency of renewable energy generation and providing renewable energy storage. This Planning Statement finds that the Proposed Development is in accordance with the principle of Proper Planning and Sustainable Development, having regard to Government, Regional and County-level planning policies and plans including the Mayo and Sligo County Development Plans, together with relevant statutory guidelines.

Policy No.	Policy Details	Development contribution
REP 6	To work with relevant stakeholders and industry to establish Mayo as a centre of excellence for renewable energy research and development activities.	By introducing green hydrogen to the region, the Proposed Development helps Mayo to grow its skills base in to a new and quickly growing sector giving it the opportunity to become a centre of excellence in this field.
REP 7	To promote the harnessing of wind energy to contribute toward decarbonising County Mayo, including new emerging by-product markets.	The Proposed Development harnesses wind energy which helps to decarbonise County Mayo, it also produces green hydrogen as a by-product of wind energy.
REO 2	To examine options to ensure that community benefits are derived from renewable energy development in the County.	In addition to helping Co. Mayo reduce environmentally damaging fossil fuel emissions, the Proposed Development will also contribute positively to the regional economy. The Proposed Development will support sustainable local employment, it will contribute annual rates to Mayo County Council and will contribute to the local economy by procuring material and services locally where possible. A community benefit fund will be established for the Proposed Development of €500,000 per annum for the first 15 years of operation that will be administered by a management committee.
REO 3	To encourage and facilitate, where possible, the production of energy from established and emerging renewable technologies.	The Proposed Development meets this policy by producing renewable energy using an established technology; wind energy, and an emerging technology; green hydrogen.
REO 5	To support and work in partnership with local communities in the development of energy efficient and renewable energy projects	Significant community consultations have been part of the EIA processes for the Proposed Development. This has included;

Policy No.	Policy Details	Development contribution
		<p>a virtual public consultation, two in person local Public Information Days, a project website, leaflets and newsletters deliveries to local residents, radio interviews, provision of two community liaison officers, advertisements for the Public Information Days in the Western People and the Sligo Champion and letters to stakeholders. The full details can be found in Chapter 1; Introduction. These consultations have provided vital feedback from local communities and resulted in amendments to the Project to mitigate impacts and harness benefits. This includes a change to the location of the Hydrogen Plant after concerns were raised around traffic on local roads. Details can be found in Chapter 3; Alternatives Considered.</p>
REO 6	To ensure all renewable energy proposals comply with the provisions of the Mayo County Council Renewable Energy Strategy 2011-2022 (or as updated).	The Proposed Development complies with the Mayo County Council Renewable Energy Strategy 2011-2022, see section 2.4.3.
REO 8	To encourage the development of wind energy, in accordance with Government policy and having regard to the Landscape Appraisal of County Mayo and the Wind Energy Development Guidelines (2006) and Mayo Renewable Energy Strategy, or any revisions thereof or future guidelines.	<p>The Proposed Development supports this policy by producing renewable wind energy, this chapter outlines how the Proposed Development fits in with the various government policy, national and regional guidelines, including the Mayo Renewable Energy Strategy (section 2.4.3) and the Wind Energy Development Guidelines (section 2.5.1).</p> <p>Chapter 12 of the EIAR the Landscape and Visual assessment</p>

Policy No.	Policy Details	Development contribution
		<p>takes into consideration the Landscape Appraisal of County Mayo it concluded that the Proposed Development would not give rise to any significant landscape or visual amenity effects.</p> <p>The Proposed Development has been assessed under each of the topics contained in the EIAR, with adverse residual environmental impacts actively avoided. No significant negative impacts to the environment have been identified. However, an area of degraded cutover bog, measuring approximately 15.23 ha, will be built upon at the Wind Farm Site. This area does not include any protected habitats or species, however the Developer has chosen to off-set the habitat loss and generally improve the biodiversity of the local area through the implementation of the Biodiversity Enhancement and Management Plan (BEMP). The BEMP is focused on the rehabilitation of an area of cutover, drained lowland blanket bog habitat of 9.8 ha which adjoins the southwest corner of the Wind Farm Site. This aims to provide enhanced habitat for peatland associated species such as red grouse, meadow pipit (both Red-listed), skylark, the common frog and the common lizard, which may be affected by the loss of some cutover bog habitat as a result of the proposed project.</p>

Policy No.	Policy Details	Development contribution
REO 17	To promote on-site wind/solar energy development or other emerging energy technologies, where energy generated is primarily required to meet the needs of households, communities, agriculture and other businesses to reduce their carbon emissions.	The Proposed Development supports this policy by contributing to renewable wind energy production, it will generate renewable electricity which can be utilised by households, communities, agriculture and other businesses to reduce their carbon emissions. Green hydrogen produced can be used locally in the haulage sector, agricultural vehicles, high heat industry and for residential and business heating.
REO 22	To promote the use of efficient energy storage systems and infrastructure that supports energy efficiency and reusable energy system optimisation, in accordance with proper planning and sustainable development	Green hydrogen production acts as energy storage, harnessing wind energy in a grid constrained area, improving the energy efficiency of renewable energy generation.



To summarise, the Proposed Development will help County Mayo to phase out fossil fuels by providing domestically produced renewable energy which contributes to the provision of energy security, needed for economic growth. The provision of green hydrogen adjacent to the county Mayo border will help to develop this emerging renewable energy by-product market. This will alleviate some of the pressures on the constrained transmission network by facilitating the offtake of renewable electricity to decarbonise hard to abate sectors such as transport, which is identified in the County Development Plan as being a significant contributor to GHG emissions in the county. By providing renewable electricity, the Proposed Development will also increase the amount of renewable energy available for the targeted increase in electric vehicles.

#### **2.4.3 Renewable Energy Strategy for Co. Mayo 2011-2022.**

The Mayo Renewable Energy Strategy (RES) 2011-2022 (the current renewable energy strategy for the county) outlines the renewable energy potential for County Mayo and how the county can capitalize these resources and meet energy targets. It acknowledges the benefits renewable energy can deliver for the county including providing a more secure energy supply, reducing reliance on fossil fuels and enabling future energy export. The strategy identifies areas most suitable for renewable energy developments in a tier system. The Wind Farm Site is designated in a 'Preferred' area for wind farms. The Wind Farm Site lies within a sub-category 'Tier 1 (Preferred Large Wind Farms)' indicating it is an area with the potential for large scale wind energy developments. This is shown in **Figure 2.1**. Key planning policies from the Renewable Energy Strategy for Co. Mayo are shown in **Table 2.3**.

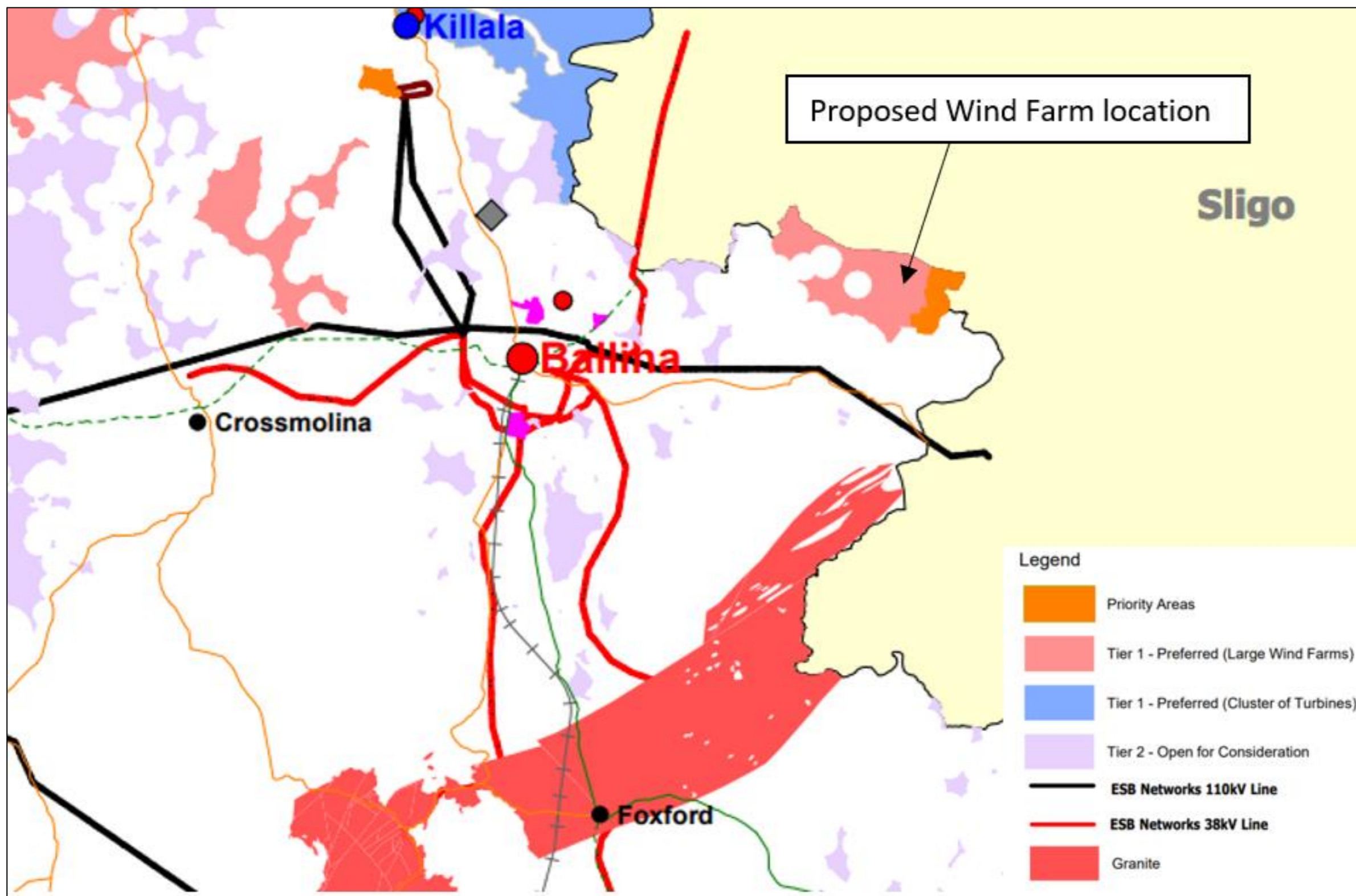


Figure 2.1: Extract from The Renewable Energy Strategy for County Mayo 2011-2022

**Table 2.3: Key Planning Policies from Renewable Energy Strategy for County Mayo (2011-2020)**

Policy No.	Policy Details	Development contribution
Policy 1	It is the policy of the Council to support the National Climate Change Strategy 2007-2012.	The Proposed Development fits well with the objectives of national climate change policies outlines in section 2.3.
<i>Policy 2</i>	It is the policy of the Council to ensure that a balance between the provision of renewable energy developments and the preservation and conservation of the natural and built environment is maintained, subject to compliance with the requirements of the Habitats and Birds Directives.	The Proposed Development contributes towards the provision of renewable energy. A full EIA has been undertaken on the Proposed Development to maximise positive benefits and minimise potential negative impacts on the environment, including the built environment while maintaining compliance with the Habitats and Birds Directives. Biodiversity is Fully assessed in Chapter 5: Terrestrial Ecology, Chapter 6: Aquatic Ecology and Chapter 7: Ornithology. The findings demonstrate that the environment can accommodate the Proposed Development without giving rise to significant biodiversity impacts. However, an area of degraded cutover bog, measuring approximately 15.23 ha, will be built upon at the Wind Farm Site. This area does not include any protected habitats or species, however the Developer has chosen to off-set the habitat loss and generally improve the biodiversity of the local area through the implementation of the Biodiversity Enhancement and Management Plan (BEMP). The BEMP is focused on the rehabilitation of an area of cutover, drained lowland blanket bog habitat of 9.8 ha which adjoins the southwest corner of the Wind Farm Site. This aims to provide enhanced habitat for peatland associated species such as red grouse, meadow pipit (both Red-listed), skylark, the common frog and the common lizard, which may be affected by the loss of some cutover bog

Policy No.	Policy Details	Development contribution
		<p>habitat as a result of the proposed project.</p> <p>The NIS concludes on the best available scientific evidence that it can be demonstrated objectively that no elements of the Proposed Development will result in a significant adverse effect on the integrity or on the Qualifying Interests/Special Conservation Interests of any relevant European site, either on their own or in-combination with other plans or projects, in light of their conservation objectives.</p>
<i>Policy 3</i>	Strategic Infrastructure: "It is the policy of the Council to encourage and assist in the provision of strategic infrastructure at appropriate locations to facilitate the provision and exporting of renewable energy.	The Proposed Development is a Strategic Infrastructure Development. It is located within a 'Preferred' area for wind farms in the Renewable Energy Strategy. It is clear from the findings of the EIAR and the NIS that the Proposed Development is an appropriate location.
<b>Policy 4 Community Benefit</b>	It is the policy of the Council to require that renewable energy developments are carried out in a manner that promotes economic and social benefits for the community of Mayo as a whole.	In addition to helping Co. Mayo reduce environmentally damaging fossil fuel emissions The Proposed Development will also contribute positively to the regional economy. The Proposed Development will support sustainable local employment, it will contribute annual rates to Mayo County Council and will contribute to the local economy by procuring material and services locally where possible. A community benefit fund will be established for the Proposed Development of €500,000 per annum for the first 15 years of operation that will be administered by a management committee.

#### 2.4.4 Sligo County Development Plan 2017-2023

The proposed Hydrogen Plant Site is located in County Sligo, the Wind Farm Site will be located in Co. Mayo, adjacent to the Co. Sligo border. The Sligo County Development Plan 2017-2023 (SCDP) is the current development plan, it has been extended for 12 months until July 2024. The plan sets out the blueprint for development in the county. Stimulating the economy and generating employment are important aspects of the plan. Climate change is addressed, and the plan highlights the county council's responsibility to implement measures to aid the transition to a low carbon economy and society, including increasing the use of renewable energy in line with regional and national policy.

Part of the approach to economic development in the plan includes supporting the provision of clean energy from reliable sources and the green economy. Section 11.1 states:

*"The availability of suitable and adequate energy is of critical importance to social and economic development."*

The plan notes that Co. Sligo has access to excellent renewable energy resources which could boost a range of sectors, improve self-sufficiency and energy security, create jobs, develop businesses, reduce poverty and encourage rural regeneration. The plan also acknowledges that renewable energy is crucial to energy security.

The development plan contains a section pertaining to the "Major Accidents Directive (Seveso III)", it states:

*"This development plan does not designate sites or zones for uses that might be classified as Seveso establishments and no such establishments exist at present. However, such uses will not be permitted in the vicinity of houses, places of concentrated public use or in environmentally sensitive areas and designated conservation areas."*

The Hydrogen Plant, under advice from the HSA, comes under the lower tier of SEVESO. It is not located in the vicinity of houses, concentrated public use or in any environmentally sensitive or designated areas. Safety is fully assessed in **Chapter 16 Major Accidents and Natural Disasters**. A Technical Land Use Planning based Quantitative Risk Assessment (the "TLUP QRA") has been prepared in accordance with the guidelines set out in the HSA's Technical Land Use Planning Guidelines. The TLUP QRA has been submitted to the HSA as part of the planning application submission. This is included in **Appendix 16.3**. It includes consequence mapping using software to model loss of containment scenarios which show:

- Distances to the lower flammability limit (LFL) and upper flammability limit (UFL) from flammable gas dispersion (showing the flash fire extent);
- Distances to specified thermal radiation levels from jet fires; and
- Distances to specified vapour cloud explosion overpressure levels.

The modelling found that there are no buildings or occupied areas within the mapped risk contours. The report concluded that the facility location satisfies the HSA criteria for new establishments and is in an acceptable location.

Preliminary Hazard Analysis (PHA) was undertaken on the green hydrogen system at the Proposed Development and generated a hazard log. The full report can be found in **Appendix 16.1**. The PHA reports includes safety requirements as mitigation for each hazard identified. This mitigation, along with implementation of the Major Accident Prevention Policy (MAPP), means that the environmental impacts arising from the vulnerability of the Hydrogen Plant to Major Accidents and Natural Disasters have been assessed as an imperceptible, long-term effect.

The Hydrogen Plant is located in an area classified in the SCDP as “Normal Rural Landscapes”. This is defined as:

*“Areas with natural features (e.g. topography, vegetation) which generally have the capacity to absorb a wide range of new development forms – these are largely farming areas and cover most of the County. At the same time, certain areas located within normal rural landscapes may have superior visual qualities, due to their specific topography, vegetation pattern, the presence of traditional farming or residential structures. These areas may have limited capacity for development or may be able to absorb new development only if it is designed to integrate seamlessly with the existing environment.”*

The Hydrogen Plant is proposed to be located in a farming area but with access to a National Secondary Road; N59. Chapter 12: Landscape and Visual Amenity assesses the impacts of this and considers that the proposed electrolyser building will present predominantly as a large storage building coloured agricultural green to match the typical tone of farm sheds in the locality. Despite being larger than most farm sheds, it is discreetly placed in its landscape setting and will not have an overt visual influence. Only a small section of the main building will be visible in close proximity from most angles and beyond 1 km it will not have a notable bearing on landscape character. It is therefore considered to be in line with the SCDP policy in relation landscape types.

Key planning policies from the 4.6.4 Sligo County Development Plan 2017-2023 are shown in **Table 2.4**.

**Table 2.4: Key Planning Policies from The 4.6.4 Sligo County Development Plan 2017-2023**

Policy No.	Policy Details	Development contribution
P-CAM-4	Facilitate and assist County Sligo's transition to a low-carbon economy and society.	The renewable energy that the Proposed Development will generate will help support Co. Sligo's low carbon transition.
P-CAM-5	Promote, support and implement measures that reduce man-made GHGs, including energy management, energy efficiency, compact development patterns, low-carbon buildings and sustainable transport.	The renewable energy that the Proposed Development will generate will reduce anthropogenic greenhouse gases and improve air quality by displacing fossil fuels. Green hydrogen produced using renewable electricity is an alternative, renewable fuel that could help to develop a sustainable transport sector in County Sligo and be used as an alternative, zero carbon heating fuel for buildings.
P-CAM-7	Promote and support the research and development of local renewable energy sources.	The Proposed Development meets this policy by producing renewable energy using an established technology; wind energy, and an emerging technology; green hydrogen locally. The Developer is working with Dublin City University to help advance research and technological knowledge of hydrogen across a range of disciplines including engineering, data science and climate sustainability.
P-CAM-8	Promote and support the use of renewable energy in all sectors.	The Proposed Development meets the objectives set down in policy P-CAM-8 by providing much needed renewable energy to meet the Government 80% renewable electricity target by 2030 and targets relating to renewable gases. Renewable electricity will assist in the decarbonisation of other sectors through electrification. Green hydrogen is an alternative, renewable fuel that could help to decarbonise hard to abate sectors such as transport and high heat industry.

Policy No.	Policy Details	Development contribution
P-CAM-9	Support community participation in, and benefit from, renewable energy and energy efficiency projects	In addition to helping Co. Sligo reduce environmentally damaging fossil fuel emissions, the Proposed Development will also contribute positively to the regional economy. The Proposed Development will support sustainable local employment, it will contribute annual rates to the Sligo County Council and will contribute to the local economy by procuring material and services locally where possible. Significant and meaningful ongoing consultation with the public has been undertaken for the Proposed Development. This includes; A virtual Public Consultation, two in person local Public Information Days, a Project Website, leaflets and newsletters delivered to local residents, radio interviews, provision of two community liaison officers, advertisements for the Public Information Days in the Western People and the Sligo Champion and letters to stakeholders. The full details can be found in Chapter 1; Introduction. The public consultations have resulted in changes to the project as outlined in Chapter 3; Alternatives Considered.
P-CAM-10	Support local innovation, economic activity and job creation in the “green economy” by encouraging investment in products, services and technologies needed in a low carbon future.	Hydrogen is a new, innovative and quickly developing industry, producing it locally creates jobs and develops Sligo’s Green Economy. The Proposed Development is a renewable energy enterprise, investing up to €200 million into provision of renewable energy technology in the region which will support a low carbon future. It will locally generate renewable electricity and zero emissions green hydrogen which could attract new enterprise to the county, bringing further jobs and economic growth.



Policy No.	Policy Details	Development contribution
SP-EN-1	Support the sustainable development, upgrading and maintenance of energy generation, transmission, storage and distribution infrastructure, to ensure the security of energy supply and provide for future needs, as well as protection of the landscape, natural, archaeological and built heritage, and residential amenity and subject to compliance with the Habitats Directive.	<p>The Development supports this policy by producing renewable energy and contributing to energy security for the current and future needs of the county. Hydrogen production creates energy storage opportunities. The Wind Farm Substation and Grid Connection will become an asset of the national grid under the management of EirGrid contributing to the national energy infrastructure. Impacts to the Environment are assessed throughout the EIAR.</p> <p><b>Landscape and Residential Amenity;</b> In Chapter 12 of the EIAR, the Landscape and Visual assessment concluded that the Proposed Development would not give rise to any significant landscape or visual amenity effects (including residential amenity). The EIAR L&amp;V chapter also considered effects upon “views and prospects” included in the Sligo County Development Plan 2022-2028. The findings demonstrate that the landscape can accommodate the Proposed Development without giving rise to significant effects. Residential amenity is also assessed in Chapter 4; Population and Human Health, which finds that the Proposed Development is adequately distanced from existing properties and associated open space areas to maintain residential amenity and ensure the privacy of local residents. No aspects of the Proposed Development overlooks or overshadows residential properties in the vicinity. The Proposed Development will not restrict access to any private or communal amenity spaces.</p> <p><b>Natural Heritage and the Habitats Directive;</b> This is fully assessed in Chapter 5: Terrestrial Ecology, Chapter 6: Aquatic Ecology and Chapter 7: Ornithology and in the NIS. The findings demonstrate that the environment can</p>

Policy No.	Policy Details	Development contribution
		<p>accommodate the Proposed Development without giving rise to significant impacts to natural heritage. A Habitat Enhancement Plan has been developed that will provide ecological improvements and conservation for the long term.</p> <p><b>Archaeological Heritage;</b> It was found that there are no recorded monuments within the site boundaries and therefore direct effects are considered unlikely. No significant indirect effects have been predicted. The findings demonstrate that the environment can accommodate the Development without giving rise to significant impacts to cultural heritage. This is Fully assessed in Chapter 14: Cultural Heritage.</p> <p>Built Heritage; Chapter 13; Material Assets addressed built heritage, including Land Use; Turbary, Agriculture and Forestry, Telecommunications, Electrical Networks, Air Navigation, Quarries and Utilities. The results of the assessment find that there is no potential for significant negative impacts on built heritage.</p>
SP-EN-2	Facilitate the sustainable production of energy from renewable sources, energy conversion and capture in forms such as wind power, hydro-power, wave generated energy, bioenergy, solar technology and the development of Waste to Energy/Combined Heat and Power schemes at appropriate locations and subject to compliance with the Habitats Directive. All such development proposals will be assessed for their potential impact on urban and rural	<p>The Proposed Development supports this policy by producing renewable energy. Impacts to the Environment and compliance with the Habitats Directive are assessed throughout the EIAR.</p> <p>In Chapter 4 Population and Human Health the socio-economic impacts of the Proposed Development are assessed in terms of impacts on the economy, employment and population in urban and rural communities. The Proposed Development will provide renewable electricity and green hydrogen, which could attract new enterprise to the county, bringing jobs, economic growth and population increases. The overall impacts on population and human health have</p>

Policy No.	Policy Details	Development contribution
	<p>communities, Natura 2000 sites, designated Sensitive Rural Landscapes, Visually Vulnerable Areas, Scenic Routes and scenic views, as well as in accordance with strict location, siting and design criteria.</p>	<p>been assessed as having the potential to result in a moderate positive, impact.</p> <p>The NIS concludes on the best available scientific evidence that it can be demonstrated objectively that no elements of the Proposed Development will result in a significant adverse effect on the integrity or on the Qualifying Interests/Special Conservation Interests of any relevant European site (which include Natura 2000 sites), either on their own or in-combination with other plans or projects, in light of their conservation objectives.</p> <p>In Chapter 12 of the EIAR the Landscape and Visual assessment considered effects upon designated Sensitive Rural Landscapes, Visually Vulnerable Areas, Scenic Routes and scenic views included in the Sligo County Development Plan 2017-2023. It concluded that the Proposed Development would not give rise to any significant landscape or visual amenity effects. The findings demonstrate that the landscape can accommodate the Proposed Development without giving rise to significant effects.</p> <p>The Hydrogen Plant Site was selected for its proximity to the national road network, its limited visual impact from public vantage points, distance from houses and access to underground water resource. Health and safety has been a key consideration in the design of the Hydrogen Plant, and the approach has incorporated good practice principles such as inherently safer design and the hierarchy of controls. The Hydrogen Plant has been designed in accordance with the relevant standards set out in Table 2.5 in section 2.6.4 of this report and the HSA's Technical Land Use Planning guidance.</p>

Policy No.	Policy Details	Development contribution
SP-TRA-1	Support the creation of an integrated and environmentally-sound transport system, in particular with regard to accessibility and choice of transport, with a quality intercity bus and rail service, alongside the promotion of cycle facilities and pedestrian movements.	The renewable energy that the Proposed Development will generate will to meet the additional electrical demand created by electrification of transport. The provision of a second green energy source; green hydrogen, will assist in decarbonising heavy transport such as HGVs and bus services in Co. Sligo.
SP-TRA-3	Encourage the shift from car use to more environmentally-friendly modes of transport and ensure the provision of quality interchange facilities between road, rail, bus and bicycle in relevant settlements	The renewable energy that the Proposed Development will generate will to meet the additional electrical demand created by electrification of transport. The provision of a second green energy source; green hydrogen, will assist in decarbonising heavy transport such as HGVs and bus services in Co. Sligo.
P-MAD-1	Consult with the Health and Safety Authority when assessing proposals for a new Seveso establishment or modifications to an establishment, and when assessing proposals for development in the vicinity of existing Seveso establishments.	A consultation meeting with the HSA was conducted on 1st July 2022 to discuss the project. In February 2023, a draft Quantitative Risk Assessment (QRA) was submitted to the HSA for review. A second scoping meeting was conducted on 21st March 2023. The details of the meetings can be found in Chapter 1; Introduction section 1.10.2.
P-MAD-2	Ensure that appropriate distances are maintained between establishments covered by the Major Accidents Directive and residential areas, areas of public use and areas of particular natural sensitivity or interest.	Chapter 16; Major Accidents and Natural Disasters includes a Quantitative Risk Assessment in <b>Appendix 16.1</b> which assesses the Hydrogen Plant in relation to the HSAs Technical Land Use Planning guidance (TLUP). The results of the analysis show that the Hydrogen Plant Site location is within the tolerable risk region established within the HSA's TLUP guidance. The Hydrogen Plant Site is

Policy No.	Policy Details	Development contribution
		<p>located in a rural setting, set back from the clusters of ribbon development along the N59. There are 22 inhabited houses within 1 km of the Hydrogen Plant Site and the closest inhabited house is 299 m to the north-east. The closest area of public use is the Castleconnor community centre approximately 2.2 km to the north. The principal land uses in the surrounding area is agricultural lands, individual dwellings, the N59 national primary road and commercial conifer plantations. It is outside of any environmental sensitivity or areas designated for special interest. The River Moy SAC is the closest, at 2.29 km to the south. It is therefore considered that the Hydrogen Plant Site is in a suitable location with the appropriate distances maintained to residential areas, areas of public use and areas of particular natural sensitivity or interest.</p>
P-LCAP-1	<p>Protect the physical landscape, visual and scenic character of County Sligo and seek to preserve the County's landscape character. Planning applications that have the potential to impact significantly and adversely upon landscape character, especially in Sensitive Rural Landscapes, Visually Vulnerable Areas and along Scenic routes, may be required to be accompanied by a visual impact assessment using agreed and appropriate viewing points and methods for the assessment</p>	<p>A Visual Impact Assessment is included in Chapter 12 of the EIAR and included an assessment of impacts to Sensitive Rural Landscapes, Visually Vulnerable Areas and Scenic Routes as identified in the Sligo County Development Plan 2017-2023. The chapter concluded that the Proposed Development would not give rise to any significant landscape or visual amenity effects.</p>

## **2.5 Other Relevant Policy**

### **2.5.1 The Wind Energy Development Guidelines – Guidelines for Planning Authorities June 2006**

The 2006 Wind Energy Development Guidelines provide best practice advice on planning wind energy developments and advice in relation to the information that should be submitted with planning applications including the effects to be assessed. The guidelines set out criteria which assist in the identification of suitable locations for wind energy development. They are also of assistance to developers and the wider public in considering wind energy development. The Proposed Development has considered the provisions of the Wind Energy Development Guidelines 2006 in the design and siting of the Wind Farm and is considered to be in line with the recommendations as set out in the Guidelines.

### **2.5.2 The Draft Revised Wind Energy Development Guidelines -Guidelines for Planning Authorities December 2019**

The Draft Revised Wind Energy Development Guidelines were published for public consultation in February 2020. The guidelines will supersede the 2006 guidelines once formally adopted by the government. The key relevant points in the draft Revised Guidelines include:

- The application of a more stringent noise limit and noise monitoring regime.
- A visual amenity setback of 4 times the turbine height between a wind turbine and the nearest residential property (subject to a mandatory minimum distance of 500 metres).
- The elimination of shadow flicker.
- The introduction of new obligations in relation to engagement with local communities along with the provision of community benefit measures.

The Wind Farm has been designed in accordance with the current Wind Energy Development Guidelines 2006 and has had regard to the Draft Revised Wind Energy Development Guidelines in relation to:

- Noise impacts are assessed in Chapter 11: Noise and are in line with the guidance.
- The layout has achieved a minimum separation distance of 740m (4x the turbine height) between turbine locations and the closest inhabited houses except for 1 no inhabited house, 725 m from T3, the owner and occupier of this house is financially involved in the project and has provided written agreement accepting the reduced setback distance and has no objection to the proposed wind energy development in line with the guidelines.

- To avoid shadow flicker at inhabited houses, assessment and mitigation measures have also been included in the Development, in line with the draft guidelines, full details of this can be found in Chapter 4: Population and Human Health.
- Extensive engagement with local communities has taken place throughout the design and planning phases of the Proposed Development, leading to significant changes to the design. Full details can be found in Chapter 3: Alternatives Considered and Chapter 4: Population and Human Health.
- The Proposed Development will provide a community benefit fund of €500,000 per annum for the first 15 years of operation.

## 2.6 Other Relevant Hydrogen policy and research

A UK energy white Paper 2020<sup>37</sup> states that the production of low carbon hydrogen in the UK should reach 5 GW by 2030. The paper identifies hydrogen as an important alternative to fossil fuel and outlines a plan to trial hydrogen heating systems to replace natural gas, hydrogen buses and trains. It highlights the benefits of developing a hydrogen industry in terms of job creation and economic development.

Scotland's Climate Change Plan 2018-2032<sup>38</sup> features hydrogen production as a key priority, showcasing the transition to a low carbon economy is already in motion with the use of green hydrogen buses in the public transport network of Aberdeen. The plan includes actions to develop the role of hydrogen in the Scottish energy system stating:

*"The process of developing this world leading, sustainable energy system will have created secure and well paid jobs, and supported sustainable economic growth across all regions of Scotland."*

The Scottish Government Hydrogen Policy Statement is:

*"We set out our vision for Scotland to become a leading hydrogen nation in the production of reliable, competitive, sustainable hydrogen, securing Scotland's future as a centre of international excellence as we establish the innovation, skills and supply chain to underpin our energy transition."*

Elsewhere in Europe, Hydrogen is experiencing rapid growth in Germany, with €1.4 billion in investment into research recently being approved, this includes subsidies into hydrogen

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<sup>37</sup> HM Government. (2020). Energy White Paper.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/945899/201216\\_BEIS\\_EWP\\_Command\\_Paper\\_Accessible.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945899/201216_BEIS_EWP_Command_Paper_Accessible.pdf) Accessed 19/4/2023

<sup>38</sup> Government of Scotland. (2020). Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update.

<https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/> Accessed 19/4/2023

refilling stations, fuel cells vehicles, commercial operated trains and fuel cell home appliances<sup>39</sup>.

The Proposed Development is needed in order to start the development of a hydrogen market in Ireland and harness the opportunity this provides in terms of economic development, jobs, energy security and emissions reductions.

### **2.6.1 Directive 2012/18/EU (“SEVESCO III”)**

The European Union’s Seveso-III (Directive 2012/18/EU) outlines rules and regulations preventing the occurrence of major accidents involving dangerous substances. This is implemented in Ireland via the Health and Safety Authority through the Control of Major Accident Hazards Involving Dangerous Substances (COMAH) Regulations and outlines various requirements covering the notification of on-site storage of dangerous substances and the development of safety policies, reports and emergency plans. The extent and details of requirements is dependent on on-site storage threshold values. Hydrogen is outlined as having a lower-tier requirement of 5 tonnes and an upper tier value of 50 tonnes. As the site will be able to hold up to a maximum of 40.128 Tonnes of hydrogen at any time, under the advice of the HSA, it is classed as a lower tier COMAH site.

### **2.6.2 ATEX 1999/92/EC**

ATEX Directive 1999/92/EC addresses explosive atmospheres but focusses on the health and safety of workers in such environments. Ireland’s 2007 Safety Health & Welfare at Work Regulations implements this directive (Part 8) and sets out the minimum requirements that should be deployed to ensure workers are protected from potential hazards associated.

### **2.6.3 Directive 2014/34/EU (“ATEX”)**

ATEX Directive 2014/34/EU covers equipment and protective systems in potentially explosive atmosphere and outlines various health and safety requirements as well as assessment procedures to ensure conformity. This is implemented in Ireland through SI No 230 of 2017 European Union (Equipment and Protective Systems for use in Potentially Explosive Atmosphere) Regulations 2017.

This regulation places obligations on the producers of equipment and systems for use in potentially explosive atmospheres, and is therefore necessary to have awareness of in this

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<sup>39</sup>Wind energy Ireland. (2022). Hydrogen and Wind Energy. <https://windenergyireland.com/images/files/final-hydrogen-and-wind-energy-report.pdf> accessed 10/03/22 Accessed 19/4/2023



work. As this is mostly applicable to producers of equipment rather workplaces, this directive is included for completeness.

#### 2.6.4 Applicable Design Standards and Codes

The Hydrogen Plant has been designed in accordance with the SEVESO Directive, ATEX Directive and the relevant standards set out in **Table 2.5**

**Table 2.5: Relevant Standards and Codes of Practice for the Hydrogen Plant**

Hazard/Area	Standard Identifier	Title
Fire/Explosion	EN 1363 to 1366	Fire resistance tests (select parts for application)
	IEC 60695-1-11	Fire hazard assessment.
	EN 14373	Explosion suppression systems.
	EN 14460	Explosion resistant equipment.
	EN 16020	Explosion diverters.
	EN 15089	Explosion isolation systems.
	EN 14797	Explosion venting devices.
	EN 14986	Designs of fans working in potentially explosive atmospheres.
	EN 1127-1	Explosive atmospheres – Explosion prevention and protection – Basic concepts and methodology.
	BS EN 50495	Safety devices required for the safe functioning of equipment with respect to explosion risks.
	PD CEN/TR 15281	Guidance on inerting for the prevention of explosions.
	BS EN 62305	Protection against lightning.
	EN 60079	Explosive Atmospheres.
	BS 60080	Explosive and toxic atmospheres. Hazard detection mapping. Guidance on the placement of permanently installed flame and gas detection devices using software tools and other techniques.

Hazard/Area	Standard Identifier	Title
<b>Hydrogen</b>	ISO 26142:2010	Hydrogen detection apparatus. Stationary applications.
	ISO 22734:2019	Hydrogen generators using water electrolysis – Industrial, commercial and residential applications.
	IGEM/SR/25 Edition 2	Hazardous Area Classification of Natural Gas Installations
	ISO 16111	Transportable gas storage devices. Hydrogen absorbed in reversible metal hydride.
	ISO/TR 15916:2015	Basic considerations for the safety of hydrogen systems.
	EN 17533:2020	Gaseous hydrogen – Cylinders and tubes for stationary storage.
	ISO 15399	Gaseous hydrogen – Cylinders and tubes for stationary storage.
	EN ISO 19884	Gaseous hydrogen – Cylinders and tubes for stationary storage.
	BCGA CP 33*	The Bulk Storage of Gaseous Hydrogen at Users' Premises 2012.
	BCGA CP 39*	In-service requirements of pressure equipment (Gas storage and gas distribution systems) 2017.
	BCGA GN 7*	Guidance Note 7: The safe use of individual portable or mobile cylinder gas supply equipment.
	HSE RR175**	HSE Report: Installation permitting guidance for hydrogen and fuel cell stationary applications.
	HSE RR1133**	HSE Report: Maintaining the integrity of of process plant susceptible to high temperature hydrogen attack Part I.
	HSE RR1134**	HSE Report: Maintaining the integrity of of process plant susceptible to high temperature hydrogen attack Part II.
	NFPA 55*	Compressed gases and cryogenic fluids code.
EIGA IGC 15/06	Gaseous hydrogen stations.	
ASTM D7265-12	Standard Specification for Hydrogen Thermophysical Property Tables.	

Hazard/Area	Standard Identifier	Title
	NFPA 2	Hydrogen Technologies Code
	ISO 19880	Gaseous Hydrogen – Fuelling stations
<b>Pressure Systems</b>	HSE GS4**	HSE Guidance Notes: Safety requirements for pressure testing.
	HSE RR509**	Management of equipment containing hazardous fluids or pressure 2006.
	BS 1427	Guide to on-site test methods for the analysis of waters.
	BS 5429	Code of practice for safe operation of small-scale storage facilities for cryogenic liquids
	EN 286-1	Simple unfired pressure vessels designed to contain air or nitrogen.
	ASTM D7327	Standard Practice for Handling, Transportation and Storage of IG-100 (Nitrogen).
<b>Water Systems</b>	ASTM D5127 - 13	Standard Guide for Ultra-Pure Water Used in the Electronics and Semiconductor industries.
<b>Electrical Systems</b>	BS 7870	LV and MV polymeric insulated cables for use by distribution and generation utilities.
	EN IEC 60076	Power transformers.
	EN 50110	Operation of electrical installations.
	NFPA 70E*	Standard for Electrical Safety in the Workplace.
	NFPA 70*	National Electrical Code.
	EN 50588	Medium power transformers.
<b>Other</b>	HSE CRC 363**	Best practice for risk-based inspection as a part of plant integrity management.
	IEC 31010:2019	Risk Management
	EIGA Doc 75/21	Methodology for Determination of Safety and Separation Distances

\*Whilst not considered applicable in Ireland, considered best practice

\*\* or Irish equivalent

### 2.6.5 Economic

The north and west of Ireland has been downgraded to a “lagging region” by the European Commission after becoming significantly poorer relative to the European average over recent years. The region, which covers both County Sligo and County Mayo in which the Proposed Development is located, was downgraded from “more developed” status to a “transition region” and is the only NUTS 2 region in Ireland viewed as a “Lagging Region” by the European Parliament’s Committee on Regional Development. The region’s GDP per head of population has fallen from 82 per cent of the EU average between 2015 and 2017 to an estimated 71 per cent now.

The Proposed Development would represent a strategically significant investment in the locality of Mayo and Sligo and the wider northwest region. The Proposed Development will provide a multi-million euro benefit to both the Irish and local economies. The Development provides the opportunity to reinforce the existing local renewable energy industry knowledge and skills base, providing the stability and diversity to the rural economy that can stimulate further industry investment to take place. This will have a positive economic impact with several Irish firms commissioned to work on the design, environmental assessment and planning aspects of the Project.

## 3 MATERIAL PLANNING CONSIDERATIONS

The planning application should be considered on the basis of the proper planning and sustainable development of the area and on the likely effects of the Proposed Development on the environment.

### 3.1 The National Interest and Strategic Importance

The Proposed Development will make a valuable contribution to climate change adaptation and greenhouse gas reductions as part of the international (Section 2.1) and European (Section 2.2) efforts to combat climate change.

Ireland is facing significant challenges in efforts to meet renewable energy and emissions targets and is falling behind in the longer-term movement away from fossil fuels. Ireland has one of the highest rates of importing fuel in Europe with energy import dependency increasing to 80% in 2021 according to the SEAI<sup>40</sup>. Energy demand in Ireland has been growing and is expected to continue to increase, especially electricity demand which is

<sup>40</sup> SEAI. (2022). ENERGY IN IRELAND. [https://www.seai.ie/data-and-insights/seai-statistics/key-publications/energy-in-ireland/?qclid=EAlalQobChMI-LH\\_o6r8\\_QIV09\\_tCh23YAykEAAAYASAAEgJipvD\\_BwE](https://www.seai.ie/data-and-insights/seai-statistics/key-publications/energy-in-ireland/?qclid=EAlalQobChMI-LH_o6r8_QIV09_tCh23YAykEAAAYASAAEgJipvD_BwE) Accessed 29/03/2023

expected to grow by 37% to 2031<sup>41</sup>. Increases to the cost of carbon, supply issues and potential political insecurity increases fossil fuel price volatility. Since the Russian invasion of Ukraine, energy prices in Ireland have increased significantly. The SEAI's Electricity Prices in Ireland Report; January to June 2022<sup>42</sup>, found on average residential electricity prices increased 10.4% in the 12 months prior to June 2022. Concern over energy costs amongst the population of Ireland is high, a survey by the Journal in October 2022<sup>43</sup> found that 77% of people said that they already or intend to use their home heating less often. The Economic and Social Research Institute (ESRI)<sup>44</sup> report on Energy Poverty published in 2022, has also warned that as many as 43% of households could now be in energy poverty, defined as when more than 10% of the household's income is spent on electricity and gas bills.

The high rate of imported fossil fuel dependency, the increasing demand for electricity and current energy price volatility make it vital to introduce more domestic renewable energy generation plants, such as the Proposed Development to provide reliable, secure and affordable energy supplies in Ireland. The Proposed Development improves Irish energy security and will reduce reliance on imported fossil fuels in line with the National Energy Security Framework (2.3.5) and the REPowerEU Plan (Section 2.2.3).

The construction of the Proposed Development will also positively contribute to the regional economy bringing investment and jobs that will help to support and retain confidence in the key regional industries of construction and renewable energy.

### 3.2 Renewable Energy Policy

The Development meets the objectives of Project 2040 as it will contribute to the economic, environmental, and social objectives of the NPF, in particular National Policy Objectives 21, 54 & 55.

It is critical that a progressive approach is taken to development of renewable energy projects in order to deliver the CAP23 objective of meeting an 80% share of electricity generated by renewables by 2030 as well as the renewable gas targets of 2.1 TWh

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<sup>41</sup>EirGrid. (2022). EirGrid's Generation Capacity Statement Predicts Challenging Outlook for Ireland <https://www.eirgridgroup.com/newsroom/eirgrids-generation-capac/#:~:text=The%20GCS%2C%20in%20its%20median,relatively%20consistent%20across%20the%20decade>. Accessed 29/05/2023

<sup>42</sup> SEAI. (2022). <https://www.seai.ie/publications/SEAI-EPR-data-for-JAN-to-JUN-2022.pdf> Accessed 19/04/2023.

<sup>43</sup> The Journal. (2022). Cost of living crisis: Most households intend to use their home heating less often this winter <https://www.thejournal.ie/poll-energy-use-ireland-heating-5891701-Oct2022/> Accessed 19/04/2023

<sup>44</sup> ESRI. (2022). Energy poverty at highest recorded rate <https://www.esri.ie/news/energy-poverty-at-highest-recorded-rate> Accessed 19/04/2023

consumption of zero emission gas (which includes green hydrogen) for industrial heating and up to 0.7 TWh of renewable gas for residential heating.

As a form of sustainable energy, with an output potential of between 65-78 MW of installed capacity at the Wind Farm and up to 80 MW of installed electrolyser capacity at the Hydrogen Plant, the Proposed Development will contribute significantly to renewable energy targets and the strategy supported in The RSES for the Northern and Western Region.

The Proposed Development's utilisation of the local resources to fuel further growth demonstrates how the Proposed Development will substantially contribute to the fulfilment of the Regional Spatial and Economic Strategy.

**3.3 The Proposed Development as Sustainable Development**

Sustainable Development is development which meets the needs of the present without compromising the ability of future generations to meet their own needs<sup>45</sup>. There are three pillars to sustainable development which are economic, social and environmental. The Proposed Development could not be a better example of sustainable development, enshrined in the National Planning Framework. The Proposed Development meets each of the three pillars of sustainable development as outlined in **Table 3.1**.

**Table 3.1: How the Proposed Development Interacts with the three pillars of sustainable development**

<p><b>Economic Role</b></p>	<p>The Proposed Development would represent a strategically significant investment in the locality. The Proposed Development provides the opportunity to reinforce and grow the existing local renewable energy industry knowledge and skills base, providing the stability and diversity to the rural economy that can stimulate further development by attracting new business to the region due to the improved supply of electricity and provision of green hydrogen, enabling diversification. The Proposed Development will have a positive economic impact with several Irish firms commissioned to work on the design, environmental assessment and planning.</p>
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<sup>45</sup> Our Common Purpose: Bruntland Report, 1987

<p><b>Social Role</b></p>	<p>The influence of the Proposed Development to the de-carbonisation of the Irish electricity network and the provision of green hydrogen as a zero emissions fuel will contribute positively to issues of strategic social importance. It will assist in mitigating climate change and improve air quality while enhancing energy security, including helping to stabilise and reduce energy costs. The Proposed Development will also create jobs, economic development and rural diversification.</p>
<p><b>Environmental Role</b></p>	<p>Overall, the EIAR sets out that the environmental impacts arising from the Proposed Development can be satisfactorily mitigated. The findings demonstrate that the environment can accommodate the Proposed Development without giving rise to significant environmental impacts in line with the Sligo and Mayo County Development Plan objectives as well as regional, national and international policy. An area of degraded cutover bog, measuring approximately 15.23 ha, will be built upon at the Wind Farm Site, the Developer has chosen to off-set this low value habitat loss and generally improve the biodiversity of the local area through the implementation of the Biodiversity Enhancement and Management Plan (BEMP). The BEMP is focused on the rehabilitation of an area of cutover, drained lowland blanket bog habitat of 9.8 ha which adjoins the southwest corner of the Wind Farm Site. This aims to provide enhanced habitat for peatland associated species such as red grouse, meadow pipit (both Red-listed), skylark, the common frog and the common lizard. The NIS concludes on the best available scientific evidence that it can be demonstrated objectively that no elements of the Proposed Development will result in a significant adverse effect on the integrity or on the Qualifying Interests/Special Conservation Interests of any relevant European site, either on their own or in-combination with other plans or projects, in light of their conservation objectives.</p> <p>Over 40 years, the Proposed Development would displace between 1.6 and 2.5 million tonnes of CO<sub>2</sub>. This would help to mitigate climate change and the impacts to ecosystem globally.</p>

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals

(SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. The UN Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including poverty, inequality, climate change, environmental degradation, peace and justice. Learn more and take action.

The Proposed Development positively contributes to the following UN Sustainable Development Goals:



By producing renewable energy, the Proposed Development contributes to the displacement of fossil fuels, which pollute the air, this improves air quality, which is closely linked to good health and well-being. See Chapter 10: Air and Climate for details.



The Proposed Development would produce two versatile renewable energy sources locally, this improves Ireland's energy security and helps to stabilize and reduce energy costs for households and businesses.



The Proposed Development is a renewable energy enterprise, investing up to €200 million into the northwest Region. It will provide renewable electricity and green hydrogen in the vicinity of the IWAK Strategic Development Zone and Economic Growth Clusters and an area the European Commission considers "lagging" in terms of economic development. This could attract new enterprise to the county, bringing jobs and economic growth. This is examined in more detail in Chapter 4: Population and Human Health.



The Proposed Development would be one of the first of a kind in Ireland, where renewable energy is converted to green hydrogen to provide a clean and low-cost fuel that can be utilised for transportation, heating systems and industrial processes, areas which have been difficult to decarbonise with electrification. Green hydrogen, produced domestically can help to reduce the costs of



decarbonising these industries. Part of the Wind Farm Substation and Grid Connection will become assets of the national grid under the management of EirGrid and assist in improving energy infrastructure in the region.



The renewable energy that the Proposed Development will generate will help support Ireland's low carbon transition and reduce anthropogenic greenhouse gases. Green hydrogen, produced using renewable electricity is an alternative, renewable fuel that could help to develop a sustainable transport sector and home heating sector in Ireland.



In the North Mayo region, the full renewable energy generation potential of the area cannot be realised due to physical shortcomings and restrictions in the electricity network. The Hydrogen Plant would provide a viable off-take and route to market for renewable energy that otherwise would have been lost due to these constraints.



By generating renewable energy and displacing fossil fuels the Proposed Development helps to reduce carbon emissions and other greenhouse gases and mitigate climate change, supporting Ireland's transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.

## 4 CONCLUSION

Throughout this Policy Statement, renewable energy is identified as being required to play a vital role in mitigating climate change by transitioning to a low carbon economy and society. By investing in renewable energy, Ireland can promote sustainable economic development using its own, secure and clean energy.

All planning applications have to be determined on their individual merits with due consideration given to the overall planning balance of a scheme. While many development proposals will encompass both positive and negative aspects that require consideration, planning weight should air on the side of a 'presumption in favour of development unless material considerations indicate otherwise' as per the paragraph 11 of National Planning

Framework. The pressing need to address climate change, the challenges to energy security giving rise to the adoption of Regulation (EU) 2022/2577, and the presumption of overriding public interest being given to renewable energy projects, makes giving additional renewable energy projects, such as the Proposed Development this 'presumption in favour of development unless material considerations indicate otherwise' more important.

The Proposed Development contributes to supplying the national demand for renewable energy, which in the context of the ongoing climate emergency is an urgent Irish national priority.

While renewable energy in Ireland has come a long way, there is still a shortfall in where the nation needs to be to achieve increasing targets. There is a clear national mandate to accommodate significant onshore wind within the next decade with The Climate Action Plan 2023 setting a 9 GW target for installed wind energy capacity by 2030. In May 2022 this was 4.3 GW, leaving a shortfall of 4.7 GW to be achieved in the next 8 years.

The Proposed Development includes 65 – 78 MW of installed capacity wind energy that can be converted into green hydrogen, to provide a clean and low-cost fuel that can be used to decarbonise sectors that have been difficult to electrify, making it a vital contribution to the transition to a low carbon economy.

Further, the National Planning Framework emphasises a move to a low-carbon economy, reducing Ireland's carbon footprint and integrating climate action into the planning system. The Regional Spatial and Economic Strategy (RSES) for the Northern and Western Region supports the increased use of renewable energy sources to transition the region to a low carbon, and environmentally sustainable economy. The Mayo and Sligo County Development plans reinforce the national and regional energy policies. The Wind Farm Site falls in a 'Preferred' area for wind farms in the Renewable Energy Strategy for Co. Mayo 2011-2020.

Green hydrogen is featured in the Climate Action Plan 2023, National Energy and Climate Plan, National Energy Security Framework, Renewable Fuels for Transport Policy Statement, the Consultation on Developing a Hydrogen Strategy for Ireland, Mayo County Development Plan 2022-2028 and multiple European level policies, including the EU Hydrogen Strategy, European Green Deal and REPowerEU. It is considered across these policies as a renewable and versatile fuel, with the potential to:

- Store excess renewable energy from the grid as back-up for intermittent renewables, or where production is higher than demand.
- To ensure energy security and resilience in energy supplies.
- As a way to decarbonise sectors that in the past have struggled to separate from fossil fuel use such as transportation, industrial processes and building heating.

Ireland was set to announce its hydrogen strategy in Q3 2022, however it has yet to be released. Hydrogen's presence on international policy and in other nation's policy and Climate Action Plans could indicate that this is a sector expected to develop significantly in the coming years.

Ireland missed its 2020 target for renewable energy achieving 12% instead of 16% of overall renewable energy share. Ireland's renewable energy in transport target (RES-T) under REDII is 14% by 2030, the renewable energy share in 2021 was 4.3%. This indicates that there is a strong justification for the decarbonisation of the transportation sector, which could be assisted by the Proposed Development with the production of green hydrogen.

The Proposed Development also meets the definition of Sustainable Development as defined by the National Planning Framework in terms of the three sustainability pillars; Economy, Environment and Social.

The development process adopted by the Applicant has represented a best practice approach to a renewable energy scheme design, minimising the potential impact through multiple design iterations and modifications to minimise the impact on the receiving environment, and ensuring compliance with the suite of planning policies and objectives of the CDPs. The layout of the Proposed Development presented in the Planning Application and EIAR represents the optimum fit with the technical and environmental parameters of this project.

Environmental Impacts have been considered within the EIAR and through the process of assessment, embedded mitigation, and additional proposed mitigation outlined in the EIAR, NIS, CEMP and Habitat Enhancement Plan it has been shown that the Proposed Development can be constructed and operated without significant effects arising, demonstrating the acceptability of the proposal.

This Planning Statement outlines how the Proposed Development is compliant with International, European and National policy on energy security, emissions reductions and

renewable energy production. It reviews policy for the Northern and Western region and local Mayo and Sligo County policies and finds the Proposed Development complies with key renewable energy, landscape and environmental policy objectives.

In summary the Development would:

- Contribute to the 45% overall renewable energy target for the EU introduced by the REPowerEU Plan in light of the war in Ukraine.
- Assist in achieving the European Hydrogen Strategy and REPowerEU targets of 6 GW of renewable hydrogen electrolyzers by 2024, and 40 GW by 2030 with production of up to 10 million tonnes of renewable hydrogen.
- Contribute to assisting Ireland to increase from 42% electricity produced by renewable sources in 2020 to 80% by 2030 to meet the national target.
- Contribute towards the National Development Plan 2021-2030's National Strategic Outcome number 13 to diversify away from fossil fuels to green energy which includes wind and hydrogen.
- Contribute towards rural economic development as specified in the National Planning Framework's National Policy Objective 21 with a multi-million euro investment in to both the Irish and local economies.
- Contributes towards climate change mitigation as specified in the National Planning Framework's National Policy Objective 54.
- Contribute toward renewable energy use and generation as specified in the National Planning Framework's National Policy Objective 55.
- Contribute 65 – 78 MW of renewable wind energy to the national CAP23 target of 9 GW by 2030 helping to reduce the current 4.7 GW shortfall (during the phase up period of the Hydrogen Plant).
- Contribute green hydrogen towards the CAP23 targets of 2.1 TWh consumption of zero emission gas (which includes green hydrogen) for industrial heating and Up to 0.7 TWh of renewable gas to aid in the decarbonisation of residential heating.
- Comply with the Regional Spatial and Economic Strategy for the Northern and Western region's goal the producing renewable energy to tackle climate change, meet predicted growth in demand and provide energy security.
- Support the local Mayo County Development Plan policy on development and exploitation of all appropriate renewable energy sources at suitable locations within the county and transition to a low carbon and climate resilient county and sustainable transport objectives.
- The Wind Farm Site is designated in a 'Preferred' area for wind farms in the Mayo Renewable Energy Strategy (RES) 2011-2022.

- Support the local Sligo County Development Plan policy on harnessing the counties renewable energy resources to improve energy security, improve self-sufficiency, create jobs, develop businesses, reduce poverty and encourage rural regeneration.
- The Hydrogen Plant site is in an area of Normal Rural Landscape in the SCDP and would comply with the requirements of this landscape designation.
- Comply with Mayo and Sligo County Development Plan's requirements for not having adverse impacts on the surrounding environment, including water quality, landscape, biodiversity or amenities.
- Contribute to rural economic development in line with the Sligo and Mayo County Development Plans of the RSES and will assist in the raising of the economic status of the region from a NUTS 2 'Region in transition' to a 'Developed' region.