

Shannon Technology and Energy Park (STEP) Power Plant

Environmental Impact Assessment Report - Volume 2

Chapter 04 Energy and Planning Policy

Shannon LNG Limited

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4. Energy and Planning Policy

4.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) provides an overview of the European, national, regional and local level energy and planning policies and other relevant statutory and non-statutory policy documents relevant to the Proposed Development.

Full details on the background, Site history and the Proposed Development is provided in **Chapter 02** (Description of the Proposed Development) and the Planning Statement submitted with this planning application.

4.2 Energy Policy

4.2.1 Introduction

Taking account of recent developments in Ireland's response to climate change, including an objective for 80% of Ireland's electricity to come from renewable sources by 2030, the Proposed Development supports the resilient transition of Ireland's electricity system to renewables.

The Proposed Development is aligned with European Union (EU) and Irish policy on energy and climate action as follows:

- **Delivery of 2 GW of Flexible Gas Fired Generation:** The Climate Action Plan 2024 commits to the delivery at least 2 GW of new flexible gas-fired generation to back up intermittent renewable generation.
- **Address power capacity shortfalls:** Since 2016, EirGrid has warned of an increasing tightness between supply and demand in the electricity system. The current outlook is serious. It is likely that in the coming years, Ireland will experience increased system alerts and will need to work proactively to mitigate the risk of more serious impacts. The Proposed Development's 600 MW Power Plant can be delivered in a realistic timeframe to address the looming shortage.

4.2.2 European Policy Context

The design of Ireland's gas and electricity markets is established under the EU legislative framework, which provides for open, competitive marketplaces.

The EU has taken action to mitigate energy insecurity by promoting renewable energy, energy efficiency, and pushing for integrated European gas markets. The European Green Deal was launched in December 2019 and focused on a number of key principles, including: ensuring a secure and affordable EU energy supply and prioritising energy efficiency, improving the energy performance of our buildings, and developing a power sector based largely on renewable sources.

The EU Fit for 55 package was published in late 2021 with the aim of reducing EU emissions by at least 55% by 2030 compared to 1990 levels, and making the EU carbon-neutral by 2050. This EU package is a set of proposals to revise all existing EU acts on climate and energy, and increase the EU target for renewables in the overall energy mix from 32% in 2030 to 40%.

In July 2021, the EU Commission proposed a revised Energy Efficiency Directive (EED) (COM/2021/558). The recast EED, which came into force in October 2023, requires all Member States to reduce their Final Energy Consumption (FEC) demand to a specified figure by 2030.

Following the Russian invasion of Ukraine, in May 2022 the EC proposed the REPowerEU Plan to make the EU independent from Russian fossil fuels well before 2030, starting with gas. A further Regulation (2022/1369) was published in August 2022, to coordinate demand reduction measures for gas, and implemented rules to address a situation where there are severe difficulties in the supply of gas.

In October 2022, a Regulation (2022/1854) was published on an emergency intervention to address high energy prices. This Regulation includes measures aimed at reducing electricity usage, including through a mandatory cap on market revenues, and the distribution of surplus revenues and surplus congestion income revenues to final electricity customers. It also included a mandatory temporary solidarity contribution from EU companies with activities in the crude petroleum, natural gas, coal and refinery sectors to contribute to the affordability of energy for households and companies.

The European Commission published a suite of legislative proposals in March 2023 looking to reform the Electricity Market Design (EMD). These legislative proposals followed a public consultation to better protect consumers from excessive price volatility, support their access to secure energy from clean sources, and make the market more resilient.

4.2.3 Climate Action Plan 2024

The Climate Action Plan 2024 (CAP24) is the third annual update to Ireland's Climate Action Plan. The Plan was approved by Government on 20th December 2023.

Climate Action Plan 2024 builds upon CAP23 by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The Plan provides a roadmap for taking decisive action to halve Ireland's emissions by 2030 and reach net zero by no later than 2050, as committed to in the Climate Action and Low Carbon Development (Amendment) Act 2021.

Section 12 of CAP24 notes:

In 2022, renewable generation accounted for 38.6% of electricity, an increase from 35% in 2021. Electricity emissions decreased by 2% in 2022 which is attributable to an increase in renewable generation, coupled with reductions in coal, fuel oil, and peat use for electricity generation. Following a decrease of 8.9% in natural gas use in 2021, there was an increase of 12.6% year-on-year in 2022. According to the Sustainable Energy Authority of Ireland (SEAI), Ireland's electricity emissions in the first half of 2023 were 16.7% lower than for the same period in 2022. In the first half of 2023, renewables accounted for 43% of electricity generated, an increase of 0.9 percentage points on the first half of the previous year.

The electricity sector continues to face an immense challenge in meeting its requirements under the sectoral emissions ceiling, as the decarbonisation of other sectors, including transport, heating, and industry, relies to a significant degree on electrification. The deployment rates of renewable energy and grid infrastructure required to meet the carbon budget programme for electricity is unprecedented and requires urgent action across all actors to align with the national targets.

Key Targets

National Target	2025	2030
Renewable Electricity Share	50%	80%
Onshore Wind	6 GW	9 GW
Solar	Up to 5 GW	8 GW
Offshore Wind - At least	-	At Least 5 GW
New Flexible Gas Plant	-	At Least 2 GW
Demand Side Flexibility	15-20%	20-30%

Measures and Actions

Transformational policies, measures and actions, and societal change are required to increase the deployment of renewable energy generation, strengthen the electricity grid, and meet the demand and flexibility needs required for the challenges of:

- *Increasing renewable generation to supply 80% of demand by 2030 through the accelerated expansion of onshore wind and solar energy generation.*
- *Developing offshore renewable generation and delivering additional grid infrastructure.*
- *Developing micro- and small-scale generation, as well as community projects, through actions such as grant funding and enabling small-scale production to participate in energy markets.*
- *Transforming the flexibility of the electricity system by improving system services and increasing storage capacity.*
- *Developing tools and mechanisms that support demand side flexibility services which leverage smart metering, including market incentives and smart tariffs, reducing / removing regulatory barriers, and focusing on flexibility-ready standards for smart technology.*
- *Delivery of at least 2 GWs of new flexible gas-fired generation.*

12.1 State of Play

The electricity sector has a ceiling of 40 MtCO₂eq. for the first carbon budgetary period (2021-2025). The Environmental Protection Agency's (EPA) National Inventory Report for 2022 shows that 49% of the first carbon budget has been used in the first two years. To meet the first carbon budget the electricity sector requires a decarbonisation rate of 17.3% per annum in the period 2023-2025. For context, the decarbonisation rate between 2018 and 2022 was 1.4% per annum.

The EPA project that the electricity sector emissions are currently not aligned to CAP23's pathways and targets. The EPA projections forecast an overshoot of ~5.2 MtCO₂eq. in the period 2021 to 2025 and ~8.2 MtCO₂eq. in the period 2026 to 2030.

The Climate Change Advisory Council has made a number of recommendations for actions in the electricity sector in particular around the need for laws to ensure access to information from smart meters, private wire connections, phase-out of coal use, storage, demand management, and the

need to streamline the planning process for wind farms. Work on these areas has been progressing since the publication of CAP23 and these recommendations have been taken into consideration in this chapter.

12.1.3 The Scale of the Challenge

Rapid delivery of flexible gas generation is needed at scale and in a timeframe to replace emissions from coal and oil generation as soon as possible to reduce impacts on the carbon budgets. The introduction of renewable gas generation into the grid is an important factor of ensuring a security of supply for Ireland's electricity system.

The Climate Action Plan 2021 (November 2021) committed Ireland to becoming a carbon-neutral economy by no later than 2050. Ireland's carbon-neutral commitment for 2050 is binding on the entire state, and not on any individual installation or emitter. To reach the 2050 milestone, a series of five-year carbon budgets, setting out a carbon reduction trajectory for Ireland, are to be embedded into law. The first two budgets must demonstrate a 51% reduction against a 2018 baseline by 2030.

A key component of meeting this reduction target is the decarbonisation of electricity generation in Ireland. To drive this change, Ireland has set a target to generate 80% of grid electricity from renewable sources by 2030, largely from wind. To allow this uptake of renewable energy to happen it is necessary to have in place back up sources of energy generation that can be efficiently dispatched when the wind is not blowing.

The Proposed Development is entirely consistent with CAP24, insofar as it helps to unlock and sustain the transition to renewable wind energy generation, while also helping to ensure greater security of supply. Onshore and offshore wind will provide the backbone of Ireland's decarbonised electricity sector, and this is reflected in the plan to increase the proportion of renewable electricity to up to 80% by 2030, including an increased target of up to 5 Gigawatts of offshore wind energy.

Flexible gas-powered generation is a critical part of that strategy, given the highly variable nature of wind energy generation. While the technology and capacity for renewable and hydrogen gas-fired generation is improving, it is not a viable alternative to natural gas-fired generation for the medium-term. The Climate Action Plan also expressly acknowledges the need to ensure security of supply through the decarbonisation journey.

Current policy as stated in the Climate Action Plan is that an additional 2,000 MW of conventional generating capacity is likely to be required by 2030 to support the transition to a net zero carbon electricity system. Natural gas-fired generating capacity, using combined cycle gas turbines, is currently the most efficient and lowest carbon dispatchable power source available to fill this gap.

Climate law and policy, including use of carbon budgets, are applied to the emissions at a national level rather than at the level of individual installations. It remains the responsibility of the Irish Government to ensure that emissions reductions targets and budgets are met. The use of market-based measures such as the European Union Emissions Trading System (EU ETS, binding on the proposed development) is likely to be a key mechanism driving emissions reductions.

As noted in **Chapter 15** (Climate), emissions associated with the Proposed Development (Power Plant) will be managed by the EU ETS scheme.

Given that the Single Electricity Market (SEM) incentivises lower emitting sources of electricity, it is important to reiterate that the Power Plant has the capability to run at a 50% blend of hydrogen by design, offering the potential for the Power Plant to become even more efficient in emission terms over the period to 2050 as and when the required policies and supply chains for hydrogen are implemented.

4.2.4 The Government Policy Statement on Security of Electricity Supply (30th November 2021)

The Government published a *Policy Statement on Security of Electricity Supply*¹ which reinforces the need for all elements of the Proposed Development.

In the Statement, the Government recognized that:

- *ensuring security of electricity supply continues to be a national priority as the electricity system decarbonises towards net zero emissions;*
- *the Commission for Regulation of Utilities (CRU) has statutory responsibility, under S.I. No. 60 of 2005, for security of electricity supply including the duty to monitor security of electricity supply and to take such measures as it considers necessary to protect security of supply;*
- *the Commission for Regulation of Utilities is assisted in its statutory role by EirGrid which is required to report to the Commission for Regulation of Utilities in regard security of electricity supply matters and, where it is of the view that security of electricity supply is threatened or is likely to be threatened, to make recommendations on measures necessary to cover peak demand and to deal with shortfalls;*
- *there is a need to continue to invest in order to ensure security of electricity supply including in areas such as cyber security; and*
- *the review of the security of energy supply of Ireland's electricity and natural gas systems that is currently underway will inform future Government policy in relation to security of electricity supply including the increasing dependence on natural gas.*

The Statement includes explicit Government approval that:

- *the development of new conventional generation (including gas-fired and gasoil/distillate-fired generation) is a national priority and should be permitted and supported in order to ensure security of electricity supply and support the growth of renewable electricity generation;*
- *it is appropriate that existing conventional electricity generation capacity should be retained until the new conventional electricity generation capacity is developed in order to ensure security of electricity supply;*
- *It is appropriate for additional natural gas transmission and distribution grid infrastructure to be permitted and developed in order to support security of electricity supply. Much of the older high-emitting conventional generation, which is powered by peat, coal, and heavy fuel oil, is expected to close over the coming years. This will need to be replaced by generation that provides the same support and backup capability but is also flexible thus enabling it to support high levels of*

¹ Available at: <https://www.gov.ie/en/publication/a4757-policy-statement-on-security-of-electricity-supply/>

generation from wind and solar. For instance, such generation may need to increase and decrease output quickly in response to changes in output from renewable generation.

4.2.5 National Energy and Climate Change Plan 2021 to 2030

The Government's National Energy and Climate Plan (NECP) 2021-2030 was developed in accordance with Regulation (EU) 2018/ 1999 of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action.

As peat and coal will no longer be part of Ireland's electricity generation mix by 2025, there will be an increased reliance on natural gas, thus reducing the diversification of Ireland's fuel mix and impacting on security of supply. The Plan forecasts that for the year 2025, natural gas will provide 52% of electricity in Ireland, with renewables 46%, hydro 1%, waste and back up oil the remaining 1%. By 2040, the NECP forecasts gas generating 40% of electricity, with renewables supplying 58%. The NECP also forecasts that with increasing intermittent renewable generation, and increasing electrical demand, the amount of electricity produced from gas fired generation increases by 30% from 2025 to 2040.

One of the stated key policies and measures included in the NECP is the following:

'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.'

The NECP further states that as the penetration of electricity generated from wind increases, the electricity network must be able to handle the unpredictability of wind while still operating in a secure manner. The increased penetration of wind energy places an increased reliance on the gas network. Even with the growth in renewables up to the target of 70% of total electrical generation by 2030, the NECP shows gas demand increasing from 4.4 MTOE² to between 6.38 to 8.06 MTOE from now until 2040. The NECP goes on to state:

'...as the penetration of electricity generated from wind increases the electricity network must be flexible to handle the unpredictability of wind while still operating in a secure manner. The increased penetration of wind energy also places an increased reliance on Ireland's gas network.'

Thus, the NECP formulates the specific policy goal to:

'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.'

4.2.6 CRU Information Note on Electricity Security of Supply Programme of Work - Update

In September 2021, the CRU published an information note³ on "Electricity Security of Supply Programme of Work".

² Millions of tonnes of oil equivalent

³ Available at: <https://www.cru.ie/wp-content/uploads/2021/09/CRU21115-Security-of-Electricity-Supply-%E2%80%93-Programme-of-Actions.pdf>

The Information Note also summarises EirGrid's assessment of a supply deficit in the following winters 2022/23 to 2025/26 which is set out in the Generation Capacity Statement 2021, and some of the changes that have given rise to this deficit since the 2020 Generation Capacity Statement was published last year. It further outlines the key elements in the programme of actions that the CRU, in line with its statutory duties, is undertaking in cooperation with EirGrid, DECC, the energy industry and other stakeholders.

These include:

- The procurement of new, enduring, capacity through a number of forthcoming capacity auctions, which is complementary to renewable electricity and central to our low carbon transition, and steps to ensure successful delivery of this capacity.
- The procurement of additional temporary emergency generation capacity.
- The extended availability and operation of older generation capacity, on a temporary basis, that was otherwise expected to retire in this timeframe.

Section 3 of the Programme of Work highlighted the challenges faced by the Irish electricity system driven by increased demand arising from Data Centre demand growth and the electrification of heat and transport. The closure of older, fossil fuel plant in line with decarbonization goals and emissions requirements was also referenced as a challenge.

Peak electricity demand is increasing and while additional new capacity has been procured via auctions, *"513MW of new capacity which was procured in the Capacity Auction for delivery in 2022/23 has failed to deliver and has dropped out"*. The existing generation fleet is also recognized as aging and associated availability is in decline.

"The availability of the current generation fleet continues to decline, but at an increased rate, with more forced outages than would previously have been allowed for, resulting in an increased need for alternate generation capacity. This is in part due to older plant requiring additional maintenance. However, we are also experiencing the impacts on the conventional generation fleet of Ireland's world leading position in integrating variable renewables, whereby generators that were designed to run continuously are being forced to operate far more flexibly than their original design would have anticipated. In addition, although they have contributed at important periods to mitigate supply scarcity, the availability and responsiveness of contracted demand-side units in the Single Electricity Market has, at times, been lower than expected and could be enhanced."

As discussed in **Chapter 02** (Description of the Proposed Development) and **Chapter 15** (Climate), the fast acting, flexible CCGT in combination with the BESS are exactly the type of new generation units that are required to facilitate increased intermittent renewables on the system. The low minimum stable generation levels offered by the multi-shaft units will allow for reduced curtailment of intermittent wind generation while providing the mechanical inertia needed to maintain system stability. A review of the minimum stable generation of existing plant and in development power stations shows that the Power Plant units will be amongst the lowest stable minimum generation while maintaining a high relative level of efficiency. The BESS will provide the rapid response necessary to support the DS3 services in the

timeframe of seconds to minutes as well as providing energy to the system while the CCGT units are ramping up.

4.2.7 Energy Security in Ireland to 2030 - Energy Security Package

Launched in November 2019, the review took almost four years to complete. It was released in November 2023. Unsurprisingly, it aligns with all other energy reviews completed since 2010.

Section 1

Energy security policy in Ireland is defined by three policy objectives: sustainability, affordability, and security. These objectives are underpinned by a broad range of policy initiatives currently in implementation, as summarised on page 5.

During 2022 and 2023, the Department for the Environment, Climate and Communications (DECC) reviewed a range of our energy security policies. This has included preparedness exercises, a review of Ireland's Electricity and Gas networks with an extensive public consultation, an Independent Review of the Security of Electricity Supply (the McCarthy Report), an energy security response to the invasion of Ukraine through the National Energy Security Framework (NESF), policy analysis on oil security of supply, and a 'Summit on Energy Independence' hosted by the Government in July 2023.

This consultation and analysis highlighted the critical importance of Ireland's renewable energy policy agenda. It also set out key strategic risks for Ireland within a changing European and International context, as summarised on page 7. The following conclusions in relation to Ireland's energy security emerged:

- 1. Ireland's future energy will be secure by moving from an oil-, peat-, coal- and gas-based energy system to an electricity-led system maximising our renewable energy potential, flexibility and being integrated into Europe's energy systems. Using smart grid infrastructure, it will integrate renewable gases, heating/cooling and mobility systems in order to meet the energy needs of our citizens. It will require us to maximise the benefits of energy efficiency and move rapidly to zero-emissions buildings. Meeting our climate, renewable and energy efficiency targets through actions and measures set out in the annually updated Climate Action Plan will deliver this secure energy future.*
- 2. Our plans for the electricity system, focused on the addition of renewable generation, demand-side flexibility, new gas-fired generation as flexible back-up, interconnection and storage, are the right ones to secure our electricity supplies. We must focus on delivery and monitor and adjust our plans as we go.*

Section 2, Action 8: To complete implementation of the CRU Security of Electricity Supply Programme

Following the declaration of a capacity crisis in the electricity sector in 2021, the CRU has led a programme of work to mitigate the risks of an identified shortfall in generation capacity in the electricity sector. This programme is supported by EirGrid and DECC and all three organisations have worked urgently to identify and pursue all available mitigations to ensure resilience in the

electricity sector until winter of 2025/26 and until sufficient enduring capacity is anticipated to deliver. An update on this programme was published in the autumn of 2023 and is available on the CRU website.

The CRU-led Security of Supply programme actions include:

- *The procurement of at least 2GW of new, flexible, enduring, capacity through market mechanisms.*
- *Enhanced monitoring of projects successful at auction to ensure successful delivery of this capacity.*
- *The procurement of Temporary Emergency Generation capacity to ensure there are units of last resort available to the State in an emergency.*
- *The retention of older generating units on a temporary basis until new, enduring capacity is delivered.*
- *Measures to improve the performance and availability of existing generators and demand-side units, and the development of additional demand-side responses.*
- *Appropriate oversight and reporting arrangements to ensure the successful delivery of this programme.*

Winter 2022/23 concluded without any system alerts. This means there were no periods when the risk of disruption to power supply for businesses or households as a result of the adequacy gap in the power system was sufficiently high as to merit issuing an alert as a warning to the system. The CRU has reported positive implementation progress on the above measures which signals confidence in the actions and ongoing roll-out of the programme. This confidence has been further reinforced with the publication of EirGrid's winter outlook for 2023/24 showing an improved status from last winter with a reduction in the risks on the system.

4.2.8 National Energy Security Framework (April 2022)

In April 2022, the Government published the National Energy Security Framework. This document was published in the initial aftermath of the Russian invasion of Ukraine. The Framework purports to provide:

“a single overarching and initial response to address Ireland’s energy security needs in the context of the war in Ukraine. It coordinates work connected to energy security across the electricity, gas and oil sectors and sets out a ‘whole-of- Government’ response to the challenges posed to energy security and energy affordability.”

The Framework next considered the Irish response under three themes:

- **Theme 1:** Managing the impact on consumers and businesses.
- **Theme 2:** Ensuring security of supply in the near term.
- **Theme 3:** Reducing our dependency on imported fossil fuels in the context of the phasing out of Russian energy imports across the EU.

Theme 2 reasserts the need to “implement as a priority the programme of work set out by the Commission for Regulation of Utilities (the CRU) to ensure security of electricity supply”⁴. The core of the CRU programme is the delivery of *at least* 2000 MW of enduring capacity in the form of flexible gas-fired generators, which is entirely consistent with the Proposed Development⁵. While the CRU anticipates a gradual shift to decarbonise natural gas supplies, the priority is ensuring security of generation capacity and decarbonisation is not included in the programme of actions.

4.2.9 Ireland’s Long-term Strategy on Greenhouse Gas Emissions Reduction

Ireland’s Long-term Strategy on Greenhouse Gas Emissions Reductions sets out indicative pathways, beyond 2030, towards achieving carbon neutrality for Ireland by 2050. The Strategy builds upon the decarbonisation pathways set by the carbon budgets, sectoral emissions ceilings and Climate Action Plan 2023, to ensure coherent and effective climate policy. It is underpinned by analysis of transition options across each key sector of the economy and provides a crucial link between Ireland’s 2030 climate targets and the long-term goal set by Ireland’s National Climate Objective and the European Climate Law. The Long-term Strategy covers, with a perspective of at least 30 years.

The Proposed Development is aligned with the provisions of the above-cited recently published Policy *Ireland’s Long-term Strategy on Greenhouse Gas Emissions Reduction*, which acknowledges the need to address capacity shortfalls and to support renewable energy in the short and medium term.

It is worth noting that Section 15(1)(b) of the *Climate Action and Low Carbon Development Act, 2015 (as amended)* states that a relevant body shall, in so far as practicable, perform its functions in a manner consistent with the most recent approved national long term climate action strategy, which, in this instance, is *Ireland’s Long-term Strategy on Greenhouse Gas Emissions Reduction, 2023*.

Section 1: Security of Supply

As we transition to a climate neutral future, we must ensure the pathway to decarbonisation is underpinned by affordability and security in how we access and use energy in our everyday lives. Having a reliable source of energy is vital for consumers to have confidence in the transition. Recent geopolitical events have had significant impacts for the European energy system, triggering a decision by the European Union to phase out its dependency on Russian gas, oil and coal imports.

In this context, the Department of Environment, Climate and Communications is preparing an Energy Security Package with recommendations for strengthening Ireland’s energy security with a view to getting it adopted by Government in Q2 2023. The package will be based on five pillars: the review of the energy security of Ireland’s electricity and gas networks, the independent review of the security of electricity supply (the McCarthy Report), the next steps for the National Energy Security Framework, oil security of supply and the Climate Action Plan. The purpose of the package is to bring different energy security work-streams together and ensure a coordinated policy response to energy security.

⁴ Response 15.

⁵ Available at: <https://www.cru.ie/wp-content/uploads/2021/09/CRU21115-Security-of-Electricity-Supply-%E2%80%93-Programme-of-Actions.pdf>

The McCarthy Report highlighted the need for greater policy leadership and increased technical expertise within the Department and the need for action in relation to roles, responsibilities, and appropriate powers and, market structure and operation. The review of the energy security of Ireland's electricity and gas networks focused on the period out to 2030, but in the context of a sustainable transition to climate neutrality by 2050. The review considered the potential risks to Ireland's natural gas and electricity supplies and examined a range of measures to mitigate these risks. Some of the mitigation options being considered include gas storage infrastructure, gas importation infrastructure (LNG), renewable gases, increased electricity interconnection, more batteries and increased secondary fuel storage. The review has underlined the importance of (i) completing the actions in the Climate Action Plan, (ii) greater demand side management, (iii) better annual forecasting for the electricity and gas systems and (iv) security of gas supply infrastructure, particularly in the context of electricity generation.

Section 3: Pathways to Climate Neutrality which Create the Least Burden and Offer the Most Opportunity for Ireland

A key objective of this Strategy is to provide clarity on the sectoral adjustments that will be required to reach climate neutrality by 2050, to support policy stability and investment in the medium- and long-term.

The exact pathways to achieving longer term sectoral targets will evolve over time, as some technologies mature and become more cost-effective in response to innovation and increased investment, or as new technologies emerge. We know with certainty, however, that reaching climate neutrality will require Ireland's carbon dioxide emissions from fossil fuel energy use in power generation, heating, industry, and transport to reduce to effectively zero.

Potential Pathway to Climate Neutrality

There are a range of measures which will allow Ireland to deliver the climate neutral target. However, given the timescale to 2050, there is uncertainty surrounding the availability and cost of certain technologies. Ireland's climate action framework, established by the Climate Action and Low Carbon Development (Amendment) Act 2021 (the Climate Act), allows for climate policy, including the allocation of carbon budgets, to evolve in line with developing scientific consensus and technology, subject to intense evaluation. The Climate Action Plan and Long-term Strategy will both be updated regularly in line with the latest scientific advice.

Section 7.1: Electricity

Accelerating the deployment of wind and solar power is a central pillar of long-term decarbonisation of the electricity system which aligns with Ireland's EU commitment's and support for the RePowerEU Plan. Deployment of renewable electricity presents challenges, as production is variable, and electricity is not easily stored as energy in a liquid or gaseous form. Therefore, Ireland will focus on a variety of actions set out in the Climate Action Plan to increase the flexibility of Ireland's electricity system. Electricity will be a key enabler in decarbonising other sectors of our economy, primarily through the increased electrification of the transport and built environment sectors. To reach Ireland's climate neutral target, the power sector will

need to deliver its own reduction in emissions and support the decarbonisation of multiple other sectors and end uses. The electrification of transport, built environment, and certain industry uses is expected to double electricity demand by 2050, which makes it extremely challenging to continue to deliver increasing rates of renewable penetration.

As set out in CAP23, a long-term electricity system development strategy to achieve our 2050 objective may require the following potential policies and opportunities:

- a policy to require future dispatchable generation to be zero carbon gas ready;*
- the continued delivery of required levels of variable renewable electricity generation and supporting infrastructure as we electrify buildings, industry and transport;*
- zero carbon demand growth supported by an industrial spatial strategy to locate new industrial development with renewable generation opportunities;*
- the continued delivery of demand flexibility, to incentivise demand when low carbon variable renewable electricity is available;*
- further policies to incentivise the construction of short and long duration storage to provide for smoothing of electricity supply and demand between times of high variable renewable production and low variable renewable production;*
- policies to ensure that zero carbon gases, like hydrogen, are utilised in the electricity sector to provide zero carbon dispatchable electricity at sufficient scale;*
- policies to support the development of inter seasonal storage of hydrogen;*
- development of further interconnectors with other European markets; and*
- industrial spatial strategy to locate new industrial development with renewable generation opportunities.*

4.2.10 Electricity & Gas Networks Sector Climate Change Adaptation Plan

1.2 Energy Sector Approach

The energy sector is essential to the functioning of the modern economy and is a key enabler to all other economic activities. Disruptions or reductions in the supply of energy can have significant negative impacts on the commercial and social heart of the country. The impacts of such disruptions will be highly dependent on scale and duration.

2.2 Energy Sector Profile

The overarching objective of the Government's energy policy is to ensure secure and sustainable supplies of competitively priced energy to all consumers. It is important that Ireland's energy supply is resilient to external shocks related to climate events or associated events, and focusses on reducing emissions to support national and international efforts in climate mitigation in line with the Paris Climate Agreement and EU Climate Obligations.

Large energy infrastructure projects typically have long investment cycles, but the on-going development and renewal of the energy networks is essential to ensure Ireland's energy system is safe and secure and ready to meet demand. A safe, secure energy system is also critical to

Ireland's ability to attract inward investment, support domestic investment and retain and create jobs. This Climate Change Adaptation Plan focusses on the electricity and gas networks and an overview of this infrastructure, and its capacity for resilience to recent extreme weather events, is set out below.

2.6 Cross Sector Interdependencies

It should be noted that the reliability of the gas network is dependent on the reliability of the associated electricity supply to pumps and other electrical devices in customers' premises which require electricity to allow gas to be used. In turn, the electricity network is reliant on gas for generation when renewables are not available and that is likely to remain the position in the medium term.

The efficient functioning of the electricity and gas sectors are key to the functioning of much of Ireland's critical infrastructure and the overall resilience of many sectors of the economy (powering industry, agriculture, transport, communications, enabling heating and cooling, food production, etc.). Decisions taken at sectoral level may potentially also affect other sectors indirectly.

Significant interdependencies have been identified between gas and electricity networks, Communications networks and the transport infrastructure, collectively designated critical infrastructure. Critical infrastructure supports and underpins the effective functioning and overall resilience of all other sectors of the economy. The electricity and gas networks are expected to play an increasingly significant role in the transport sector as decarbonisation becomes a growing national objective.

4.2.11 National Adaptation Framework Planning for a Climate Resilient Ireland

The NAF sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The NAF was developed under the Climate Action and Low Carbon Development Act 2015 (as amended). The NAF builds on the work already carried out under the National Climate Change Adaptation Framework. The NAF outlines a whole of government and society approach to climate adaptation in Ireland. It also aims to improve the enabling environment for adaptation through ongoing engagement with civil society, the private sector, and the research community.

Chapter 1 Climate Change: Sectoral Impacts of the NAF notes:

Critical infrastructure: Water, energy, communications, transport, emergency services are at risk from a range of projected changes including sea level rise, increasing temperatures, changing rainfall patterns and extreme weather events. Ireland's ports will be placed at increased risk due to storm surges. Most of Ireland's power stations, oil refineries and storage facilities are located on the coast and are therefore vulnerable to sea level rise, storm surges and higher waves. Extreme floods will affect dam safety, while extreme winds will damage overhead powerlines.

4.2.12 National Adaptation Framework (NAF) Review

The NAF review process took place in 2022. The Review also examined progress made in implementing actions and objectives under the 2018 NAF, legislative changes to the Climate Act in 2021 and submissions by the Climate Change Advisory Council (CCAC) into the review process. The Review also takes account of key developments at International and EU level, notably the publication of the IPCC Working Group I and II reports, the agreement and publication of the new 2021 EU Adaptation Strategy, and feedback on current Adaptation policy in Ireland. A Report on the NAF Review was approved by Minister Ryan in October 2022, and recommends the development of a new NAF in 2023.

4.2.13 National Policy Position on Climate Action and Low Carbon Development

The National Policy Position provides a high-level policy direction for the adoption and implementation by Government of plans to enable the State to move to a low carbon economy by 2050.

National climate policy in Ireland:

- *recognises the threat of climate change for humanity;*
- *anticipates and supports mobilisation of a comprehensive international response to climate change, and global transition to a low-carbon future;*
- *recognises the challenges and opportunities of the broad transition agenda for society; and*
- *aims, as a fundamental national objective, to achieve transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.*

4.2.14 Climate Action and Low Carbon Development Act

Under Section 15(1)(d) and (e) of the Climate Action and Low Carbon Development Act:

“(1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with

(a) the most recent approved climate action plan,

(b) the most recent approved national long term climate action strategy,

(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,

(d) the furtherance of the national climate objective, and

(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.”

The most recent Climate Action Plan 2024 (CAP24), the National Long Term Climate Action Strategy, the National Adaptation Framework, relevant Sectoral Adaptation Plans and the National Climate Objective all support the Proposed Development.

4.2.15 Compliance with Carbon Budgets and Sectoral Emission Ceilings

A carbon budget represents the total amount of emissions that may be emitted in the State during a five-year period, measured in tonnes of carbon dioxide equivalent. It is calculated on an economy-wide basis.

As part of its work, the Climate Change Advisory Council is responsible for proposing three five-year economy-wide carbon budgets, covering the periods 2021-2025, 2026-2030 and 2031-2035, to assist the State in achieving its national climate objectives and greenhouse gas emissions targets agreed by the European Union.

The Climate Change Advisory Council Carbon Budget Technical Report October 21 noted that:

“Natural gas remains on the grid as a significant source of electricity in all scenarios. ... The additional demands on the electricity system from the electrification of transport and heat will lead to requirements for grid reinforcement. Abundant clean electricity is crucial to underpin the achievement of the carbon budgets and the 51% target. Almost every sector relies on an increasing supply of it to decarbonise.”

The Climate Action Plan 2023 (CAP23) is the first CAP to include the carbon budgets and sectoral emissions ceilings limits. The Department of the Environment, Climate and Communications (DECC) has published the modelling⁶ and assumptions used to forecast the gas demand in the CAP 23 that satisfies the carbon budgets and sectoral emissions ceilings. It can be seen from the modelling that natural gas remains a key provider of energy and heat for the electricity, residential, commercial and industry sectors out to 2030 and beyond. Specifically, it can be seen that:

- Natural gas demand in the power sector increases from 16.1 TWhr in 2019 to 19.1 TWhr in 2025. It then falls to 8.6 TWhr in 2030, but only if 5 GW of offshore wind and 8 GW of onshore wind is built by 2030. If this wind power is not delivered, it is reasonable to expect natural gas will make up the shortfall.
- In the residential sector, out of a total of 2,164,000 homes in the State by 2030, 21% (453,000) will remain heated by natural gas in 2030.
- For industry, natural gas will remain the dominant source of heat under CAP23. Specifically, emissions from natural gas from their heat demand will only drop 28% from 1.86 MtCO₂eq to 1.45 MtCO₂eq.

In the EU Fit for 55 Package⁷ the European Commission noted: *“According to the scenarios in this modelling, natural gas will continue to play an important role in terms of consumption and generation until 2030, after which we expect a decline to 2050. Throughout the transition of our energy system, the function of natural gas-fired electricity generation will change and will increasingly be a facilitator for the spread of renewable electricity and stable supply”.*

⁶ Details of the modelling and analysis that informed and supported the preparation of Climate Action Plan 2023. McKinsey and Company *Analyses provided to support preparation of CAP23*.

⁷ Available at: <https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55-the-eu-plan-for-a-green-transition/#what>

4.2.16 Climate Change Advisory Council Carbon Budget Technical Report (October 2021)

The Climate Action and Low Carbon Development Amendment Act (2021) provides for the establishment of carbon budgets. The Act mandates the Climate Change Advisory Council to propose carbon budgets for each of the periods 2021-2025; 2026-2030; 2031-2035 (provisional).

The proposed carbon budgets should set Ireland on a pathway consistent with a sustainable economy and society where greenhouse gas emissions are balanced or exceeded by the removal of greenhouse gases by 2050.

The CCAC adopted their Technical Report at its meeting on 25th October 2021. It noted the following key points in relation to energy.

Assessment of the Impacts of Carbon Budgets, Section 3.1.1 Implications for Action – Energy

The modelling suggests a complete removal of coal and peat for residential heating and up to 600,000 retrofits between 2020 and 2030. For reference the recently published Housing for All Strategy committed to the retrofit of 500,000 houses to B2 or cost optimal standard by 2030, of which 35,000 would be houses owned by local authorities. This would mean an 80% reduction in kerosene use and large scale electrification for home heating. Heat pumps or electrification are also foreseen for space heating in the commercial sector. District heating can be an important pathway for residential heating in urban areas. The modelling also foresees fuel switching for industrial heat and emissions savings in the cement sector from carbon capture and storage in the period to 2030. The requirement for electrification in transport and heat leads to a significant increase in electricity generation and installed capacity in all scenarios. The scenarios see approximately 7GW installed capacity of onshore wind in 2030. Natural gas remains on the grid as a significant source of electricity in all scenarios. Levels of offshore wind vary under the scenarios from 1.6GW up to a maximum of approximately 7GW installed capacity depending mostly on electricity demand levels. Demand management, particularly through energy efficiency measures will be crucial to control costs. The additional demands on the electricity system from the electrification of transport and heat will lead to requirements for grid reinforcement. Abundant clean electricity is crucial to underpin the achievement of the carbon budgets and the 51% target. Almost every sector relies on an increasing supply of it to decarbonise.

4.2.17 CRU Testimony to the Oireachtas Committee on Environment and Climate Action (March 2022)

The Government of Ireland has advised that:⁸

In Ireland, the Commission for Regulation of Utilities has statutory responsibility, under S.I. No. 60 of 2005, to ensure security of electricity supply. It has the duty to monitor security of

⁸The Government Policy Statement on Security of Electricity Supply

electricity supply and to take such measures as it considers necessary to protect security of supply.

At their appearance before the Oireachtas Joint Committee on Environment and Climate Change on 29th March 2022⁹, the CRU addressed, *inter alia*, the issue of gas and electricity security of supply in the context of the climate action plan.

The CRU Chairperson, Aoife McEvilly opened by stating:

In the coming decade, Ireland's grid infrastructure will also need to accommodate large-scale electrification of heat and transport; the connection of new large-scale generation, storage, and system services technologies; the connection of small-scale renewables and more active energy consumers and communities; and investment in distribution, transmission and control systems to allow for more flexible and responsive demand than ever before.

4.2.18 CRU Testimony to Oireachtas (July 2021)

In its statement to the Joint Oireachtas Committee on Climate Action in July 2021, the CRU commented (CRU, 2021):

'With regard to energy's contribution to our 2030 carbon reduction targets, the CRU is already working towards the delivery of an electricity sector with world-leading levels of intermittent renewable generation, including significantly increased contributions from solar and on- and offshore wind. This will be facilitated by flexible, efficient gas generation, of a similar scale to that which we have today, but used less frequently, which will provide back-up during those, sometimes extended, periods of very little sunshine or wind...

Natural gas, which will be decarbonised over time, will provide an essential underpinning for the security of energy supply, ensuring we can meet this demand as we transition to a net-zero carbon economy...

The Single Electricity Market Committee is also running capacity auctions to secure the additional generation capacity required. The twin challenges of replacing a large part of our existing generation fleet, while meeting rapidly growing demand, means that a minimum of 2GW of new gas-fired plant will be needed in the next few years. This flexible capacity is required to support increased renewables, enable us to retire older carbon intensive plant (coal, peat and oil) and ensure security of supply. This capacity is in addition to the increased storage and interconnection which must also be delivered at pace...

Gas is an essential transition fuel for Ireland as we move to a fully decarbonised energy system. Gas-fired generation will play a pivotal role in underpinning electricity security of supply and the secure electrification of heating and transport. As Corrib gas is in decline and in the absence of new indigenous production, we will be increasingly dependent on imports from the UK via our existing interconnectors. Implementing a strategy to decarbonise gas, and to ensure secure

⁹ Available at: https://www.oireachtas.ie/en/debates/debate/joint_committee_on_environment_and_climate_action/2022-03-29/2/

and diverse supplies and supply routes for gas, will be a key priority, noting that an increasing proportion of this could be indigenous biomethane and, in time, green hydrogen...'

4.2.19 EirGrid Testimony to the Oireachtas Joint Committee on Environment and Climate Change (22nd March 2022)

EirGrid appeared before the Oireachtas Joint Committee on Environment and Climate Change on 22nd March 2022¹⁰. EirGrid Chief Executive Officer (CEO), Mark Foley, noted:

"I remind the committee of EirGrid's position on gas and dispatchable gas generation. Gas is essential to see us through this transition. I cannot overemphasise this. We are all committed to achieving the Government's climate action target of 80% renewables, but gas is our backstop. This is what ensures that we can deliver this transition and get out the other end, and hopefully with hydrogen replacing gas in due course in the next decade.

Based on EirGrid's analysis, we need some 2,000 MW of dispatchable gas generation. We need it preferably by the end of 2026. This will do two things. It will backstop the system and ensure that we have security of supply, and it will help us to see off the old fossil-intensive plants, be they at Moneypoint, Tarbert or elsewhere, in the system. We should not apologise for it. It is necessary and it will get us to our goal. We are very focused on that and we have made very strong representations to the regulator in that regard."

"In summary, EirGrid's job is to highlight when there is a problem, and we are then dependent on the Regulator considering our advice and directing us on any actions that need to be taken".

In relation to gas fired power stations, Mr. Foley said:

"I want to restate EirGrid's position in respect of dispatchable gas generation and the role of such in the energy transition.

- 1. Gas generation is an essential component of the generation mix to ensure security of supply as we transition to up to 80% of electricity from renewables by 2030 and ultimately a new zero carbon power system in later years.*
- 2. Based on EirGrid's analysis, 2,000 MW of low carbon flexible dispatchable generation is required for at least another decade, preferably installed by no later than 2026. This is required in order to both meet increasing demand and, importantly, to facilitate the decommissioning off the system, in a timely manner, of fossil fuel intensive old generation plant which does not conflict with Ireland's decarbonisation ambitions. These targets are set out in the Climate Action and Low Carbon Development Act, 2021. Preference should be given to new plant which is capable of conversion to hydrogen fuel at a future date.*
- 3. Recent auctions for new capacity have only been partly successful and EirGrid has made recommendations to the CRU that it considers will improve the probability of future auction outcomes addressing these needs, but the role of EirGrid in this regard is solely advisory and the CRU is the responsible decision-making body."*

¹⁰ Available at: https://www.oireachtas.ie/en/debates/debate/joint_committee_on_environment_and_climate_action/2022-03-22/2/

In his summary conclusion to his opening statement, Mr. Foley noted:

“The delivery of the appropriate dispatchable gas generation plant, battery technologies and the full range of necessary system services is required to be delivered by the regulatory authorities, through a market design proposition that creates investor confidence in the near to medium term. EirGrid will provide what advice and support that it can, but the decisions are for the regulatory authorities to make.”

In response to questioning by committee members, Mr. Foley said:

“I remind the committee of EirGrid's position on gas and dispatchable gas generation. Gas is essential to see us through this transition. I cannot overemphasise this. We are all committed to achieving the Government's climate action target of 80% renewables, but gas is our backstop. This is what ensures that we can deliver this transition and get out the other end, and hopefully with hydrogen replacing gas in due course in the next decade.

Based on EirGrid's analysis, we need some 2,000 MW of dispatchable gas generation. We need it preferably by the end of 2026. This will do two things. It will backstop the system and ensure that we have security of supply, and it will help us to see off the old fossil-intensive plants, be they at Moneypoint, Tarbert or elsewhere, in the system. We should not apologise for it. It is necessary and it will get us to our goal. We are very focused on that and we have made very strong representations to the regulator in that regard.”

In response to a question in relation to gas as a transition fuel, Mr. Foley said:

“Regarding gas as a transitional fuel post 2030, the answer is “Yes”. We will need gas well into the next decade. I cannot tell the Deputy whether it will be 2035 or 2038 but gas is vital. It is really important that Ireland secures its source of gas in order to see us to the Holy Grail, ultimately, of 100% renewables.

Deputy Christopher O'Sullivan posed the following question to Mr. Foley:

“Mr. Foley said at the outset, and I listened intently, that EirGrid's role was to advise. We are hearing commentary that as opposed to focusing on and ramping up floating offshore wind, we should look at honouring the existing oil and gas exploration licenses. By the time we explore for oil and gas and carry out those tests, we could be well down the road of proper floating offshore energy and producing green hydrogen and clean renewable energy. In its advisory capacity, would EirGrid advise focusing on the renewables? Would Mr. Foley agree with some of those comments in relation to oil and gas exploration?”

Mr. Foley responded:

“I do not know about exploration. The honest answer is that we need both. The work we will do later in the year on the offshore opportunity off the west coast will be about floating technology and harnessing it to deliver economic and energy benefits for Ireland Inc. but we must make sure we have enough gas to see us through this transition into the next decade. I keenly await the Government's study on how we will manage that. We are committed to the renewables proposition and to harnessing energy off the west coast but we must make sure we have enough gas to keep things going as we get to that endgame. We need to have an honest,

grown-up conversation about that. We can appreciate the precarious situation we are currently in with what is happening in Ukraine”.

4.2.20 Failure of the Capacity Auctions

EirGrid has forecast a shortfall in generation and advised that new additional gas fired conventional power plants are urgently required. The regulatory vehicle to deliver new generation capacity onto the grid, is the “Capacity Auction”. Refer to **Chapter 03** (Need and Consideration of Alternatives) for further details on the process.

It was noted in the EIAR, that a number of new build gas power station projects which had successfully cleared the auctions in recent years, and were awarded 10 year contracts have withdrawn/ terminated their contracts due to their inability to deliver in the required timeframe. This failure to attract new modern, efficient, baseload generation may lead to a sub-optimal future electricity system where aging, inefficient, unreliable peaking power stations, that run on coal and oil, may remain on the system.

As discussed above, the EPA¹¹ has reported that “*sectoral emissions in the Energy Industries sector show an increase of 17.6% in 2021 which is attributable to a tripling of both coal and fuel oil use in electricity generation. There was also a reduction in natural gas use by 8.9% as plants were offline in 2021*”.

The CRU recently confirmed that several units which received 10-year capacity contracts, subsequently terminated those contracts due to an inability to deliver^{12,13}.

Furthermore, in June 2022, the CRU published an update on the Electricity Security of Supply Programme of Work. The update included a notification that EirGrid would be directed to procure an additional emergency 450 MW of temporary generation on top of the 200 MW previously announced at a cost of €350 million for the two years. The updated noted that the capacity auctions held in 2022 “*did not meet the volume requirements set for the auction*” and that additional auctions are being considered to make up the shortfall.

Capacity Market Auction for 2022/23 to 2025/26

The volumes procured in the Ireland and Dublin regions did not meet the volume requirements set for the auction. Industry have indicated that the current geopolitical climate has been a factor that led to decisions from some project developers not to bid into this auction.

The Capacity Market is not delivering new power plants, and in the context of increasing power demand, the result will be increasing amounts of costly emergency measures. *i.e.*, there is now an immediate imperative reason for the Proposed Development.

Additionally, the CRU confirmed that EirGrid are working with operators to determine if plants previously scheduled for closure can have their operational life extended until such time as new plant can be delivered.

¹¹ Available at: <https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/energy-/#>

¹² Available at: <https://www.irishtimes.com/business/energy-and-resources/esb-accused-of-bidding-low-to-deter-rivals-in-electricity-generation-auction-1.4760491>

¹³ Available at: https://www.sem-o.com/documents/general-publications/2223T-4-Capacity-Market_Capacity-Termination-Notice_PY_000030-ESB.pdf

4.2.21 Recent Award of Capacity Contract

Chapter 03 (Need and Consideration of Alternatives) describes the operational benefits to the electricity system of the proposed Power Plant as against alternatives including OCGT power plants. The multi-shaft CCGT design of the Power Plant was chosen following extensive engagement with EirGrid.

Chapter 15 (Climate) of the EIAR demonstrates the emissions benefits of the proposed development vis a vis the alternative of an OCGT.

In March 2023, the Commission for Energy Regulation published the annual ‘*Best New Entrant*’ decision paper¹⁴. EirGrid again stated that a power plant consistent with the Proposed Development was desirable:

The TSOs also argued that the CCGT used for BNE evaluation should be based on a multiple shaft CCGT with a by-pass stack, which would allow the CCGT to operate more flexibly in accordance with the needs of the system during the energy transition....

Looking into the longer-term projections, maximising flexibility of new CCGTs at the design stage will provide the system operators with a fit for purpose power system with enhanced system flexibility; this is particularly important as we are on a no regrets pathway to a high renewable electricity system.....

Finally, the TSOs want to conclude by stating that a balanced portfolio of onshore and offshore renewables, new renewable gas ready flexible CCGTs and unrestricted OCGTs, long duration batteries, highly available demand side management, and interconnection complimented by low carbon inertia services are needed to enable the delivery of a secure transformation to emissions target compliant power system that delivers at least 80% RES-E by 2030.

On 5th April 2023, EirGrid published the results¹⁵ of the most recent Capacity Auction confirming that the Proposed Development (Power Plant) had been awarded a 10-year contract to deliver capacity by October 2026. The Proposed Development should therefore now be considered part of the State’s response to satisfying the Climate Action Plan 2024¹⁶ requirement to deliver over 2000 MW of new, flexible gas fired power generation by 2030.

¹⁴ Available at: <https://www.semcommittee.com/publications/sem-23-016-best-new-entrant-decision-paper>

¹⁵ Available at: <https://www.eirgridgroup.com/newsroom/eirgrid-group-publishes-t/>

¹⁶ Available at: <https://www.gov.ie/en/publication/79659-climate-action-plan-2024/>

4.3 Planning Policy

4.3.1 Introduction

This section focuses on the key planning policies at national, regional and local level that guide the nature and extent of the Proposed Development.

This section is written by Aiden O'Neill, Town Planner and Director of Coakley O'Neill Town Planning Ltd, who holds the qualifications of BSc (Hons), PGDip and is a Corporate Member of the Irish Planning Institute (MIPI).

Aiden has over 28 years' post qualification experience in the full range of planning services in Ireland and the UK, including energy, waste, industrial, water services and airport infrastructure.

4.3.2 National Planning Framework 2018

The National Planning Framework (NPF) 2018 (which forms part of Project Ireland 2040) is the national level statutory plan guiding land use and sustainable development in Ireland for the next two decades (DHLGH, 2020). Climate action and responding to climate change are core themes that guide the NPF and inform its policies and objectives.

National Strategic Outcome (NSO) 8: Transition to a Low Carbon and Climate Resilient Society, of the NPF states:

'Ireland benefits from interconnection with the UK gas pipeline network and while there are two gas pipelines with two separate entry points into the island of Ireland, both pipelines are connected through a single facility in Moffat, Scotland.'

Critically, NSO 8 also notes that:

'In addition, our gas storage capacity is limited, which poses a security of supply risk and constrains smoothing of seasonal fluctuation in gas prices.'

Our energy security regarding gas is precarious in terms of the current infrastructure connecting Ireland to the UK gas pipeline network but also geo-politically, as the UK is no longer a member of the EU.

Therefore, ensuring autonomous gas supply separate from being reliant on the UK is of paramount importance.

In addition, in terms of sustainability regarding land use, transportation and infrastructure, it is prudent to locate power plants as close as possible to the fuel source for the generation of power. This eliminates / reduces costs and avoids other inefficiencies associated with transporting fuel for power generation.

4.3.3 National Development Plan 2021-2030

Together with the NPF, the National Development Plan 2021-2023 (NDP) (DPER, 2018) constitutes Project Ireland 2040. The NDP notes that the NPF highlights the centrality of NSO 8 to all other elements of spatial policy.

With regard to delivering on NSO 8 and facilitating the transition to a climate-neutral and climate-resilient society, the NDP is explicit that one of the Government's Strategic Investment Priorities regarding

Commercial Sector Investment includes enhanced electricity interconnection, including the Celtic Interconnector to France and further interconnection to the UK, along with the following:

'Delivery of circa 2 GW of new conventional (mainly gas-fired) electricity generation capacity to support the operation of a predominantly wind/solar electricity system and provide security of supply for when variable electricity generation (wind/solar) is not sufficient to meet demand'
(page 123).

The NDP therefore highlights that new natural gas-fired power plants will be required into the future for electricity generation within Ireland.

4.3.4 Strategic Integrated Framework Plan for the Shannon Estuary 2013-2020

The Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary was published in November 2013 (Clare Co. Council, Kerry Co. Council, Limerick City and Co. Councils, Shannon Development and Shannon Foynes Port Company, 2013). While the SIFP is not a statutory plan itself, the SIFP has since been incorporated into the Clare CDP 2023-2029 Volume 9 and the Limerick Development Plan 2022-2028 Volume 6, while the Kerry CDP 2022-2028 contains policies which support the sustainable development of the Shannon Estuary, in line with the SIFP and the recommendations of its environmental assessment, recognising the estuary's potential as an Energy Hub. The Regional Spatial and Economic Strategy for the Southern Region (Southern RSES) also contains policy and objectives which support and promote the realisation of the policies and recommendations of the SIFP.

As illustrated in **Figure 4.1**, the Site is located in one of nine strategic development locations identified in the SIFP: '*Strategic Development Location H: Tarbert-Ballylongford land bank, Ballylongford*'. The SIFP states that this location:

'[I]ncludes a significant portion of lands currently zoned for industrial use within the Kerry County Development Plan, including a portion that has extant planning permission for a major LNG terminal.'

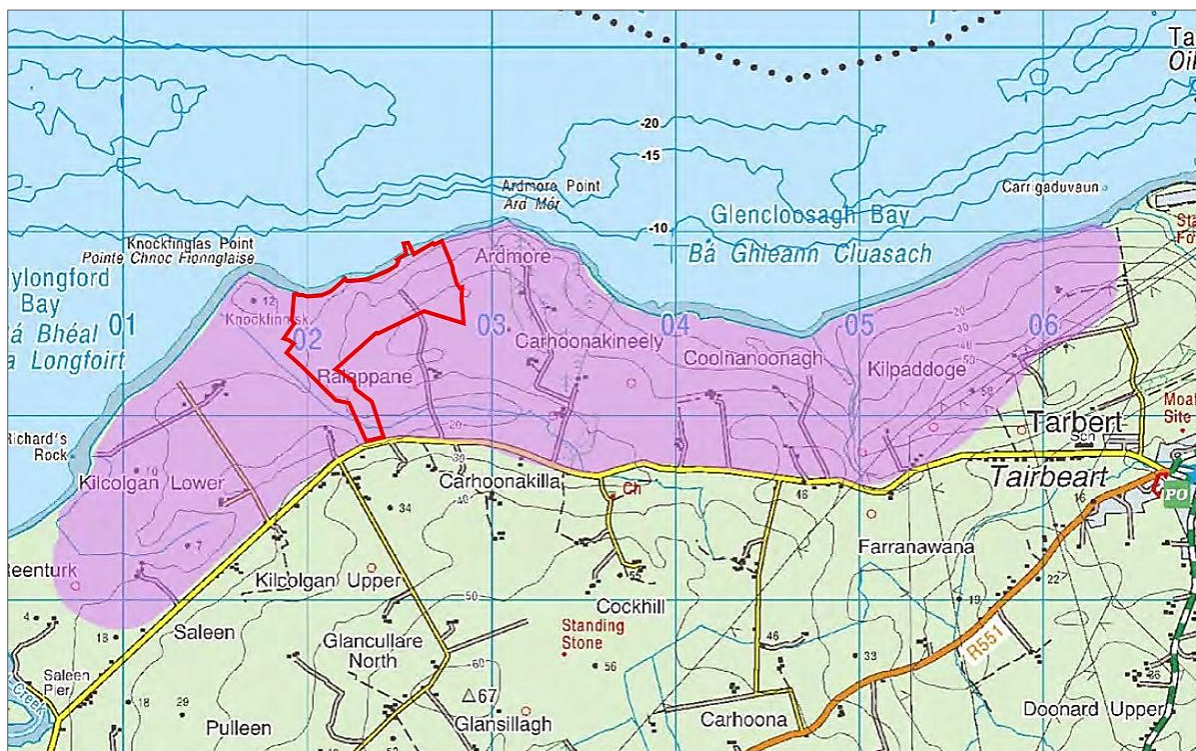


Figure 4.1: Location of the Site of the Proposed Development in the Tarbert-Ballylongford Land Bank

(The Site of the Proposed Development outlined in Red)

It is noted that the above referenced planning permission for an LNG regasification terminal has since lapsed.

SIFP Development Objective MRI 1.2.13 relates to the Tarbert-Ballylongford Land Bank and is as follows:

'To promote and facilitate the sustainable development of these lands for marine related industry, utilising the presence of deep water, existing infrastructure, natural resources, and waterside location to harness the potential of this Strategic Location. Alternative proposals for general industrial development, compatible or complementary with marine related industry, with the level of flood risk, and those creating a synergism with existing uses, and contributing to the development of a strategic energy hub at this location will also be encouraged. Development will be subject to compliance with the criteria set out in Objective SIFP MRI 1.2.'

The criteria set out in Objective SIFP MRI 1.2, and the compliance of the Proposed Development with same, are as follows:

To permit sustainable proposals for marine related industry within the Strategic Development Locations identified in Figures 5.2A and 5.2B Volume III, subject to compliance with:

- *The individual development objectives outlined in this Plan for the Strategic Development Locations: The Proposed Development is located in the Tarbert-Ballylongford Land Bank, Strategic Development Location H as identified in the SIFP;*

- *The objectives and requirements of the Habitats Directive specifically Article 6(3) and where necessary 6(4), Birds, Water Framework, and all other relevant EU Directives:* The Proposed Development is subject to EIA, which has determined that there are no significant impacts, and AA, which has determined no adverse effects on either the River Shannon and River Fergus Estuaries SPA or the Lower River Shannon SAC:
- *All relevant principles of proper planning, flood risk, sustainability and environmental considerations, including the mitigation measures referenced in this Plan (Volume II Appendices) –* the Proposed Development is not located in any area of the site that is at risk of flooding, is consistent with national, regional and local planning policy, has a demonstrable need in assisting with the transition to a low carbon society, can generally be successfully absorbed into the receiving environment without significant effect, and is in the interests of the proper planning and sustainable development of the area.

Section 5.6.4 of the SIFP states:

'Ballylongford benefits from a significant deepwater asset and extant permission for a major LNG plant, the availability of natural gas, the proximity to the national grid and the potential for refrigeration from the regasification process, combined with the additional physical infrastructure in terms of roads and water. This makes the lands a very attractive location for other industries to locate in the future. There is also potential for gas fuelled electricity generation in the future.'

The SIFP proposes a Strategic Development Location around the Tarbert-Ballylongford complex to accommodate further development of the energy infrastructure and allow for economic development that will be attracted to such a significant site by virtue of its energy provision and deepwater facilities.'

The SIFP is unequivocal that a strategic energy hub has become established within the Shannon Estuary by virtue of the presence of both the Moneypoint and Tarbert power stations, with this hub facilitating the growth of strategic grid infrastructure and other synergistic industries such as renewable energy and combined heat and power. The SIFP builds on existing industry connectivity, synergy and existing infrastructure to create a more sustainable and attractive network for investment.

In this respect, and in recommending a grant of permission for the Power Plant element of the recent LNG Import Terminal & Power Plant proposal for the subject site, ABP Ref. No. 311233-21, the Inspector noted in Section 13 of his report *that the proposed 600MW power generation plant is aligned with local and regional planning policy and land use objectives, and is supported by national energy and climate policy which identifies a requirement for additional conventional generation capacity as a priority.*

In addition, the Inspector noted in Section 14 of this report that:

The development accords with the relevant policy at a European, National, regional and local level. It will provide conventional power generation capacity in line with the provisions of the Climate Action Plan 2023, which would facilitate the transition to a more renewables based national electricity system. The proposed power generation development has been designed to

provide an efficient and flexible plant in line with current design standards, which combined with the proposed battery energy storage facility, will facilitate its role as a back-up to a renewables-based electricity grid.

While it is acknowledged that the operational of the development would generate greenhouse gas emissions, the need for such generation capacity is recognised as a national priority in the Government Policy Statement on Security of Electricity Supply, notwithstanding an overall commitment in the Climate Action and Low Carbon Development (Amendment) Act 2021 to becoming a carbon-neutral economy by 2050. When taken in context, and noting the need and policy support for the proposed development including consistency with the relevant provisions of the Climate Action Plan 2023, significant negative impacts on the global climate receptor are not likely.

While there will be landscape and visual impacts associated with the proposed development, in the context of the surrounding pattern of development and the long term objectives for the development of these lands, such impacts are not considered to be significant adverse.

Significant ecological effects are not anticipated arising from the proposed power plant. Direct impacts on habitats are limited and are not considered to adversely affect the conservation objectives of European Sites. Low numbers of estuarine birds were recorded in the vicinity of the site, and there is noted to be limited intertidal foraging habitat of value along the shore, while the site itself provides limited foraging potential. Negative impacts on terrestrial flora and fauna, and habitats within the site will be localised, negative but not significant.

Overall, it is reasonable to conclude that the consequences for the proper planning and sustainable development of the area would be largely acceptable. While there are negative local impacts, these are not regarded as outweighing the benefits arising and it is therefore concluded that there is a clear justification in favour of granting approval for the proposed:

- 600 MW power plant and associated structures.*
- 120 MW battery energy storage system, and ancillary development.*
- Proposed Above Ground Installation (AGI) and ancillary structures, and*
- All ancillary works.”*

It is noted, however, that the Board, in refusing permission for both the LNG Import Terminal & Power Plant proposal for the subject site, ABP Ref. No. 311233-21, determined that only permitting the Power Plant aspect of that proposed development *would render the residual development a materially different proposal at this location adjoining the Shannon estuary and which would warrant at the least a full review in terms of compatibility with overarching policy for the area, noting for example objective MRI 1.2.13 of the ‘Strategic Integrated Framework Plan for the Shannon Estuary’ (SIFP) which seeks ‘to promote the sustainable development of these lands for marine related industry, utilising the presence of deep water and the waterside location to harness the potential of this Strategic location.’*

In arriving at this decision, the Board only had part regard to objective MRI 1.2.13 of the SIFP. As noted above, the full objective MRI 1.2.13 goes on to state that: *Alternative proposals for general industrial development, compatible or complementary with marine related industry, with the level of flood risk, and*

those creating a synergism with existing uses, and contributing to the development of a strategic energy hub at this location will also be encouraged. Development will be subject to compliance with the criteria set out in Objective SIFP MRI 1.2. The Board's decision had no regard to the totality of objective MRI 1.2.13 of the SIFP.

It is our submission that the Proposed Development is an industrial development that is compatible and complementary with marine related industry, similar in nature, scale and location to other power plants operating along the coast across the country in the vicinity of marine related activity. The Proposed Development is also not located in any area of the site that is at risk of flooding. It will also create a synergy with existing industrial / energy uses in the area. It is therefore considered that the Proposed Development aligns with the SIFP, in particular SIFP Development Objective MRI 1.2.13, in that it is either an alternative proposal for general industrial development that is compatible or complementary with marine related industry, or a synergistic use, having regard to the existing established energy infrastructure in the area, and will contribute to the further development of the Shannon Estuary strategic energy hub.

4.3.5 Southern Assembly Regional Spatial and Economic Strategy

The RSES (SRA, 2020) emphasises the strategic importance of energy and marine related industrial development to the prosperity of this peripheral region.

The RSES contains a number of Regional Planning Objectives (RPOs) of which two are of note in terms of the Proposed Development:

'RPO 219 New Energy Infrastructure

It is an objective to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers (subject to appropriate environmental assessment and the planning process) to ensure the energy needs of future population and economic expansion within designated growth areas and across the Region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs.'

'RPO 222 Electricity Infrastructure

It is an objective to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this plan under EirGrid's (2017) Grid Development Strategy (subject to appropriate environmental assessment and the planning process) to serve the existing and future needs of the Region and strengthen all-island energy infrastructure and interconnection capacity.'

In relation to the potential for energy and renewable energy production in the South-West Strategic Planning Area, Appendix 2 of the RSES states:

'Example of an opportunity: Tarbert- Ballylongford Landbank LNG and CHP Project, a key site identified in the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary.'

The RSES clearly recognises the significance of the Tarbert-Ballylongford landbank and supports the development of energy infrastructure at this location.

4.3.6 Kerry County Development Plan 2022-2028

The Kerry CDP 2022-2028 is the local-level statutory plan containing development policy and objectives regarding managing the development of the Site of the Proposed Development.

Under the Development Plan, the Site is part of 430.6 hectares of land which have access to deep water *i.e.*, up to 23 m and which are zoned as a Strategic Development Location (SDL). This SDL is recognised in the Development Plan for its potential as an Energy Hub and for industrial development at a regional and national level.



Figure 4.2: Zoning objective pertaining to the Site

(The Site of the Proposed Development outlined in red)

Source: Base map source: Kerry County Development Plan 2022-2028, Volume 4, Map 6: Tarbert-Ballylongford Landbank.

The Core Strategy of the Development Plan contains the following paragraph:

‘3.5.1.4 North Kerry / West Limerick / Shannon Estuary / Clare Settlement Network

Kerry County Council supports the economic role and potential of the established towns of Listowel, Abbeyfeale, Newcastle West (Key Town) and Kilrush as economic drivers in a potential North Kerry/West Limerick/Clare network connected with the Shannon Estuary referred to as the North Kerry/Shannon Estuary Network. This includes the Shannon Integrated Framework Plan (SIFP) area and strategic locations identified under the SIFP as a Shannon Estuary Coastal Network. This area is viewed as a driver for economic growth within the County and Region. There is potential for innovative projects, collaboration between stakeholders and sectors, infrastructure projects (including multi-modal transport infrastructure, more frequent

public transport services and digital connectivity) to/ from and within the network to unlock the strengths and opportunities. This includes the County's Regional Town of Listowel, Ballybunion and support for economic interaction with the AEC, Strategic Development Sites in the Shannon Estuary, the Kerry Hub and Knowledge Triangle and cross county boundary connectivity to other settlements in a network 11 (including Newcastle West in Limerick as a Key Town, Port of Shannon Foynes, Limerick-Shannon Metropolitan Area etc).'

The following Development Plan objectives apply to the development management of the Proposed Development and its Site:

'KCDP 9-23

Support and promote the delivery of the Strategic Development Locations (SDLs) as set out in the SIFP for the Shannon Estuary subject to the implementation of mitigation measures outlined in the SEA and AA undertaken on SIFP and zoned in the Local Authority Development Plans.'

'KCDP 9-24

Support the promotion, marketing and seeking of financial and expert support for the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary and specific projects emerging from the plan. Projects shall be subject to the relevant environmental assessment requirements including SEA, EIA SFRA and AA as appropriate.'

'KCDP 9-25

Promote and facilitate the sustainable development of the Tarbert-Ballylongford landbank for industry, utilising the presence of deep water, existing infrastructure, natural resources, and waterside location to harness the potential of this Strategic Location. Proposals for marine related industry, general industrial development, and particularly those industries creating a synergism with existing uses and contributing to the development of a strategic energy hub at this location will also be encouraged.'

'KCDP 12-1

Support and facilitate the sustainable provision of a reliable energy supply in the County, with emphasis on increasing energy supplies derived from renewable resources whilst seeking to protect and maintain biodiversity, archaeological and built heritage, the landscape and residential amenity and integration of spatial planning and energy planning in the county.'

'KCDP 12-3

Facilitate the sustainable expansion of the gas network, including the facilitation of a gas importation facility in the Tarbert/Ballylongford Landbank.

'KCDP 12-36

Facilitate the sustainable development of Battery Storage systems in appropriate locations at or adjacent to existing energy infrastructure, subject to requirements and considerations in relation to: residential amenity, landscape; cultural heritage; Natura 2000 sites and the Habitats & Birds Directive; the objectives of the Water Framework Directive; Flood Directive; electricity infrastructure; and health & safety.'

Section 12.1 of the Development Plan includes the following statement:

‘In relation to power generation, Kerry is well placed to encourage and facilitate the sustainable development of power generation facilities in the county. The Council will continue to support the infrastructural renewal and sustainable development of electricity and gas networks.’

Section 12.2 of the Development Plan supports the strengthening of the gas network “to progress development of infrastructure to enable strategic energy projects in the county, including the Tarbert/Ballylongford Landbank”.

Section 11.2.6 of the Development Plan states the following with regard to green and blue infrastructure and ecological corridors:

‘Given the extent of the Tarbert Ballylongford landbank and its location relative to areas of nature conservation value, it is of particular importance that ecological connectivity at a landscape level is taken into account as part of development proposals for this area.’

In summary, the Proposed Development comprises uses which accord with the zoning of the site and which will contribute towards the development of a strategic energy hub along the southern shore of the Shannon estuary in north county Kerry, as per Development Plan objective KCDP 9-25 and the Development Plan’s Core Strategy.

The Proposed Development is also supported by Development Plan objectives:

- KCDP 9-23 and KCDP 9-24, which endorse the objectives and policy contained in the Strategic Integrated Framework for the Shannon Estuary 2013-2020 (SIFP).
- KCDP 12-1, which supports the development of energy supply infrastructure in the county.
- KCDP 12-36, which supports the development of Battery Energy Storage Systems (BESS).

4.3.7 Clare County Development Plan 2023-2029

Noting the Inspector’s report in respect of pre-application consultation on the Proposed Development (case reference ABP-316518-23), wherein it was indicated that there is the potential for visual impact from the Co. Clare side of the Shannon Estuary, the following provisions and objectives of the Clare CDP 2023-2029 are considered relevant (Clare Co. Co., 2023):

*‘**Key Goal XII:** A county that builds on the strategic location and natural resources of the Shannon Estuary by facilitating and maximising its potential for various forms of development while managing the estuarine and natural environment in full compliance with all relevant EU Directives.’*

*‘**Key Goal XIII:** A county that maximises and manages the economic, social and recreational potential of the Atlantic Coastline and Shannon Estuary while protecting the coastal zone and its resources and adapting to and managing the challenges of climate change including flooding and sea-level rise.’*

‘6.10 Shannon Estuary

The Shannon Estuary is a natural asset of international importance and offers significant potential for future economic development in County Clare and the Southern Region. It is a

multi-functional zone, with the waters and adjoining lands supporting a range of functions, uses and activities and with environmental resources and assets which bring character, prosperity and vibrancy to the area. In recognition of the potential of the Estuary to capitalise on this natural advantage and the need to take a sustainable approach to future development in the area, a Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary has been prepared. The SIFP sets out an overall 30-year strategy for the proper sustainable growth, development and environmental management of the Shannon Estuary region. The SIFP identifies and zones two sites in County Clare for marine-related industry (Moneypoint and Cahiracon) and also identifies opportunity sites for other key activities such as renewable energy development and aquaculture. It also promotes the potential of the Estuary for tourism and recreational activities. The SIFP comprises Volume 9 of this Plan.'

'Development Plan Objective: Shannon Estuary CDP6.10

It is an objective of Clare County Council:

- a) To proactively implement the Strategic Integrated Framework Plan for the Shannon Estuary including the mitigation measures identified in Volume 9 of this Plan; and*
- b) To support the promotion, marketing and seeking of financial and expertise support for the Strategic Integrated*

Framework Plan for the Shannon Estuary and specific projects emerging there from.'

11.8.2 Energy Security

... 'The Shannon Estuary is identified as a key asset in developing a diverse and secure energy supply in the Region. Significant potential exists to harness the sustainable development of renewable energy sources to assist in meeting renewable energy targets, as set out in the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary. Clare County Council recognises that the growth of the offshore renewable energy sector and the ESB's 'Green Atlantic' project present significant opportunities for the Shannon Estuary in respect of new infrastructure and supply chain developments. The Shannon Estuary is well placed to capture a significant share of this market and to become a focal point for the offshore wind industry in Europe. See Chapter 2 'Climate Action', Chapter 12 'Shannon Estuary' and Volume 9 of this Plan 'Strategic Integrated Framework Plan for the Shannon Estuary' for further information and detailed objectives relating to Energy.

The SIFP identifies four sites within the Shannon Estuary that are of strategic significance in nationally and regionally in terms of their contribution to the security and diversity of energy supply and further economic potential. The four sites of strategic significance are:

Moneypoint;

Tarbert;

Tarbert-Ballylongford land bank; and

Aughinish Alumina.'

'Development Plan Objective: Energy Security CDP11.44

It is an objective of Clare County Council:

To promote and facilitate the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure, to integrate renewable energy sources, thereby creating a secure and efficient energy supply and storage system for County Clare which is ready to meet increased demand as the regional economy grows.'

Development Plan Objective: Gas Networks CDP11.46

'f) To facilitate the strengthening of the gas network sustainably to service settlements and employment areas in County Clare and to facilitate progress in developing the infrastructures to enable strategic energy projects in the county including those identified in the Strategic Integrated Framework Plan for the Shannon Estuary (SIFP);'

'Development Plan Objective: Energy Storage CDP11.51

It is an objective of Clare County Council:

a) To support and facilitate the development of secure, appropriately scaled energy storage facilities, particularly green hydrogen gas storage and pumped freshwater hydro energy storage, at suitable locations throughout the County, in compliance with the requirements of Objective CDP3.3 of this plan; and

b) To support initiatives to develop innovation, advances in technology and pilot projects for the sustainable development of energy storage and carbon capture within the Region and to work with key stakeholders in developing sustainable forestry to support carbon sequestration and enhance biodiversity.'

'12.1 Strategic Aims

This Chapter presents the objectives required to maximise the potential of the Shannon Estuary while protecting its designated ecological resources. In accordance with the overall vision of the plan, it is based on the following strategic aims:

- To implement the SIFP to provide clarity of purpose and direction for the future development of, and investment in, the Shannon Estuary and its environs;*
- To diversify the economy through the promotion, along the Shannon Estuary, of industry / business and employment opportunities, aquaculture and fisheries, offshore renewables, maritime activities, water-related recreation, tourism industries and maritime training, in a sustainable manner;*
- To support and expand the existing economic base, including port and harbour facilities and related activities and to regenerate areas previously used for maritime activities;*
- To appropriately protect, manage and enhance the natural coastal environment, cultural and built heritage of the estuary area;*
- To ensure that all proposed development is in accordance with the SEA Directive, Birds and Habitats Directives, Water Framework Directive, Marine Strategy Framework Directive, Shellfish Waters Directive, Floods Directive and EIA Directive; and*

- *To work with the Shannon Estuary Task Force towards delivering on opportunities presented by the Shannon Estuary.'*

'12.2 Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary

The Shannon Estuary contains a number of long established large commercial ports as well as nationally significant industries and economic centres and is one of Ireland's most important maritime resources. However, since the enactment of the European Communities (Natural Habitats) Regulations S.I. No. 94 of 1997¹⁷, it has become increasingly apparent that the future development and extension of such activities will need to be closely co-ordinated with the conservation objectives for the European sites concerned.

The Shannon Estuary is designated as both a candidate Special Area of Conservation (cSAC) and Special Protection Area (SPA). Therefore, no development can be planned for, or permitted, unless the prior assessment regime laid out in Article 6 of the Habitats Directive has been complied with. In addition, public authorities are obliged to avoid pollution and deterioration of natural habitats and the habitats of species, as well as disturbance of the species, for which areas have been designated in so far as such disturbance could be significant in relation to the objectives of the Habitats and Birds Directives. Furthermore, the Cloon River, which flows into the Shannon Estuary at Clonderlaw Bay, forms part of the Lower River Shannon cSAC and is designated for the freshwater pearl mussel which is the subject of further specific protective measures. The designation of habitats is not meant to prohibit development; it is meant to ensure that policies, plans and projects are conceived having due regard to maintaining the integrity and dynamics of a habitat, its constituent species and the necessary environmental resources so as to sustain them at favourable conservation status.

The existence of such designations requires a systematic approach to the development of plans, policies and objectives. This is necessary to demonstrate that environmental considerations have been taken into account from the beginning. An evidence-led approach is required whereby decisions take account of all relevant environmental considerations, including resources such as air and water quality, disturbance, pollution and connectivity. To facilitate the implementation of Development Plan Objective CDP12.2 the inter-jurisdictional Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary has been prepared and comprises Volume 9 of this plan.

The SIFP sets out an overall 30-year strategy for the proper sustainable growth, development and environmental management of the Shannon Estuary region. Within its lifetime the SIFP must be able to respond to changing circumstances within policy and governance at EU, national, regional and local levels, as well as contextual changes within the Estuary region, including population, lifestyles and aspirations for the future.

The Strategy aims to:

¹⁷ Now superseded by European Communities (Birds and Natural Habitats) Regulations 2015 (S.I. 355/2015)

Support the multi-functional nature of the Shannon Estuary and identify opportunities to expand the existing economic base, including port-related industry and other associated activities;

Facilitate the diversification of the economy through the promotion of appropriate commercial/industrial employment, environmentally friendly aquaculture and fisheries, renewable energy, transport, recreation and tourism industries in a sustainable manner;

Promote, manage and enhance the natural coastal environment along the Estuary, including its cultural, natural and built heritage; and

Safeguard the Estuary's sensitive environmental resources and natural heritage of National, European and international significance.

The RSES supports the delivery of the Strategic Development Locations as set out in the SIFP for the Shannon Estuary and promotes the SIFP initiative as a good practice model for the Southern Region. It is also an objective of the RSES to support the promotion, marketing and seeking of financial and expertise support for the SIFP for the Shannon Estuary and for specific projects emerging there from.'

'Development Plan Objective: Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary CDP12.1

It is an objective of Clare County Council:

a) *To support and implement the inter-jurisdictional Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary in conjunction with the other relevant local authorities and agencies. All proposed developments shall be in accordance with the SEA Directive, Birds and Habitats Directives, Water Framework Directive and Shellfish Waters Directive, Floods Directive and EIA Directive. All proposed developments shall incorporate the Mitigation Measures as contained in the SIFP (Volume 9 of this plan) for ensuring the integrity of the Natura 2000 Network.*

b) *To proactively market the Strategic Development Locations in County Clare at Inishmurry / Cahiracon and Moneypoint as potential locations for future economic development.'*

'12.2.1 Integrated Development of the Shannon Estuary

The Shannon Estuary lies within the functional areas of a number of local authorities and other statutory agencies and its successful development requires a co-operative approach between these bodies. It is an objective of the Council to work with other bodies to facilitate development in respect of the entire Estuary and, in particular along the northern shoreline which lies within County Clare. The Council will undertake the role of enabling the implementation and delivery of the SIFP for the Shannon Estuary within the administrative area of the county in a co-ordinated and integrated manner and in co-operation with the relevant statutory authorities and agencies. The SIFP comprises Volume 9 of this plan.'

'Development Plan Objective: Integrated Development of the Shannon Estuary CDP12.2

It is an objective of the Clare County Council:

- a) To co-operate with the relevant agencies to facilitate, encourage and promote development and economic growth and employment in environmentally sustainable areas along the Shannon Estuary, by implementing the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary;*
- b) To support the promotion, marketing and seeking of financial and expertise support for the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary and specific projects emerging there from; and*
- c) To promote a co-ordinated approach to the collation of baseline data for the Shannon Estuary as one ecosystem or entity.'*

'12.2.2 Strategic Development Locations

The Shannon Estuary has the deepest watercourse in Ireland and is one of the deepest estuaries in the world. It is one of Ireland's premier maritime resources with a number of long-established and successful marine enterprises including major ports and nationally significant industries and economic centres. The Estuary benefits from key attributes that influenced the development of large-scale industry and the marine industrial base that currently operates there. These existing industries have the potential to attract further significant investment to the area.

There are two definable clusters of industry on the Shannon Estuary, one concentrated broadly around Moneypoint, Tarbert and Ballylongford, and another focussed around Foynes, Aughinish and Cahiracon.'

'Development Plan Objective: Marine-Related Industry/Large-Scale Industry on the Estuary CDP12.3

It is an objective of Clare County Council:

To capitalise on the natural deep-water potential and existing port and maritime infrastructure, by facilitating and proactively encouraging the environmentally sustainable development of maritime industries at appropriate locations within the Shannon Estuary, while seeking to improve and promote the road and transport connectivity of the deepwater ports in the county. All proposed developments shall be in accordance with the Birds and Habitats Directives, Water Framework Directive and all other relevant EC Directives.

All development associated with marine related industry shall incorporate the sector and site-specific Mitigation Measures as contained in the SIFP (Volume 9 of this plan) for ensuring the integrity of the Natura 2000 Network.'

'12.4 Harnessing the Energy Resource of the Shannon Estuary

Clare County Council recognises that the Shannon Estuary is long established as a major contributor to the national energy supply market. Energy development within the Shannon Estuary must be considered in the context of the multi-functional nature of the Estuary area and the competing requirement to safeguard the nature conservation obligations of international standing. The context is also provided by national energy policy in respect of security of supply, the national requirement to transition to a climate neutral economy no later than 2050, the

existing energy infrastructure in the region, the need to upgrade infrastructure for the delivery and expansion of the electricity and gas networks, and the technical capacity of the Estuary to accommodate growth in the energy sector.'

'Development Plan Objective: Harnessing the Energy Resources of the Shannon Estuary CDP12.8

It is an objective of Clare County Council:

- a) To ensure that the Shannon Estuary fulfils its optimum role in contributing to the diversity and security of energy supply;*
- b) To harness the potential of the Estuary for the sustainable development of renewable energy sources to assist in meeting renewable energy targets.*
- c) To contribute to a working group on Research, Education and Training to map research capabilities, human capacity, national and international connections and opportunities with respect to renewable energy.*
- (d) To ensure that all proposed developments shall be in accordance with the Birds and Habitats Directive, Water Framework Directive and all other relevant EC Directives.*
- (e) To ensure that all development associated with the energy sector shall incorporate the sector and site-specific Mitigation Measures as contained in the SIFP (Volume 9 of this plan) for ensuring the integrity of the Natura 2000 Network.'*

Consistent with the Shannon Integrated Framework Plan, these key provisions and policies of the Clare CDP 2023-2029 endorse the strategic role and function of the Shannon Estuary in supporting marine-related industry, and specifically reference the cluster of industrial activity in the Tarbert / Ballylongford Strategic Development Location. The important role of the Shannon Estuary in the diversity and security of energy supply and energy storage in the region is also acknowledged.

4.3.8 Shannon Estuary Economic Taskforce Report

The Programme for Government 2020 committed to supporting the Shannon Estuary region through the establishment of an Economic Taskforce to evaluate the economic development potential of the Shannon Estuary area, and to determine how this potential can be realised in both an economically and environmentally sustainable way.

The independent Shannon Estuary Economic Taskforce was established on 21st April 2022, with the twofold objective to create a long-term vision for the region and to outline a practical action plan to realise it. The objective of this Taskforce was to propose practical recommendations for action on key underdeveloped areas of opportunity, as opposed to providing a reference list of initiatives for which actions are already underway, although there may be some potential for overlap. The taskforce worked with public and private sector stakeholders to propose such actions for implementation, with recommendations on how to deliver those in a timely and effective way.

Section 2.5 Retaining Employment Gains by Enabling Secure, Affordable Decarbonisation of Industry

In the case of natural gas, the Taskforce recognises that this is considered a green transition fuel by the EU since 2021 and its use is encouraged 'to allow us to accelerate the shift from more polluting activities, such as coal generation, towards a climate neutral future, mostly based on renewable sources'. In addition to providing a new energy supply that is reliable, cost competitive, and incremental for our industries in the region to both decarbonise and grow, the Taskforce remains of the view, expressed in our interim report, that an LNG import / storage facility and electricity generation would be a significant strategic investment in the North Kerry / West Limerick region. Most importantly, it would greatly assist efforts to attract other large capital investments there. We understand that such investments would be capable of using and distributing hydrogen when energy from Atlantic wind becomes available at a later stage, as promoted by EU 'Green Deal' policies.

4.3.9 Listowel Municipal District Local Area Plan 2020-2026

The Listowel Municipal District Local Area Plan 2020-2026 (LAP) was adopted by Kerry Co. Co. on 21st September 2020 (Kerry Co. Co., 2020).

One of the key strategic issues for the Listowel Municipal District, as identified in section 2.1.3 of the LAP, is the development of the Tarbert / Ballylongford landbank in line with The Strategic Integrated Framework Plan for the Shannon Estuary (SIFP).

Overall Strategic Development Objective OS-08 of the LAP is to support the policies and objectives of the SIFP as follows:

'Support the sustainable development of the land zoned within the Tarbert/ Ballylongford area in accordance with the policies and objectives of The Strategic Integrated Framework Plan for the Shannon Estuary (SIFP) and the Kerry County Development Plan.'

Section 2.3.3 of the LAP states that '*North Kerry's location on the Shannon Estuary presents opportunities for future economic development and employment growth*'. This section also references the previously permitted LNG regasification terminal (permission has since expired) and the permitted Combined Heat and Power Plant scheme, which were considered, at the time the LAP was published, to be a solution to the established trend of rural decline in the locality of Ballylongford:

'The industrial land known as the Tarbert / Ballylongford Land Bank is approximately 2 km to the north of [Ballylongford] village and comprises 398 hectares. On part of this site planning permission has been granted for a liquefied natural gas (LNG) import terminal. This development would, over a three year period, provide approximately 650 construction jobs and on completion 50 permanent jobs. Planning permission has also been granted for a Combined Heat & Power Plant which will, if developed result in the creation of additional employment. The Ballylongford Land Bank therefore represents enormous potential to create local employment for the village.'

Section 2.3.3 of the LAP goes on to reference the SIFP, noting that the SIFP has identified the strategic Ballylongford Land Bank '*as being critical to the future development potential of marine and energy related industry in the Estuary*', and that Kerry County Council recognises '*the on-going potential of the*

Tarbert / Ballylongford landbank to be sustainably developed for industry in compliance with the EIA and Habitats Directives.'

The LAP further states that the previously permitted LNG regasification terminal (permission has since expired) and the permitted Combined Heat and Power Plant within the Tarbert / Ballylongford land bank, *'if completed together with future supporting developments will have a significant positive impact on employment, demand for services, and residential development in Tarbert.'*

Finally, the LAP also contains **Infrastructure Objective LS-T-01** as follows:

'Sustainably harness the economic potential from the provision of a secure natural gas energy supply to the region.'

The Proposed Development supports the realisation of Overall Strategic Development Objective OS-08 and Infrastructure Objective LS-T-01 of the LAP.

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