

EP Energy Developments Ltd.

Planning Statement

Tynagh North OCGT

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Executive Summary

- This Statement is submitted to An Bord Pleanála in support of a Strategic Infrastructure Development ('SID') planning application by EP Energy Developments Ltd.¹ ('the Applicant') for a new 350 MW Open Cycle Gas Turbine ('OCGT') power plant and associated infrastructure on land to the north of Tynagh Power Station, Derryfrench, Tynagh, Loughrea, Co. Galway.
- The Applicant, EP Energy Developments Ltd., is a subsidiary of EP UK Investments Ltd. (EPUKI) which owns and operates a number of power stations in Ireland and the UK.
- The Site area measures 8.3 hectares and is wholly located within the administrative area of Galway County Council ('GCC'). The Site of the Proposed Development is located to the north of the existing Tynagh CCGT Power Station. A description of the Site and its surroundings is provided in Section 2 of this Statement.
- The Site is ideally suited for new generation capacity as it benefits from proximity to a range of existing supply and transmission infrastructure including a high pressure buried gas pipeline, an electricity substation and a 220kV overhead power line.
- The Proposed OCGT will be fuelled by natural gas and will operate as a 'peaking plant' that will be capable of starting up rapidly to provide backup power generation when there is a gap between renewable power generation and demand. The key objective of the development is to facilitate the continued expansion of Ireland's renewable generation capacity while maintaining security of supply.
- The proposed 350MW OCGT plant and the existing CCGT plant at Tynagh will operate independently of one another. The two plants will deliver power to the grid through separate transformers, gas AGI connections and electrical substation bays.
- In February 2023, An Bord Pleanála approved an application (ABP-313538-22) for a 299MW OCGT plant on the western portion of the existing Tynagh Power Station site (the 'Approved Development'). The Applicant is unable to implement this permission for the foreseeable future due to a range of viability constraints. The Proposed Development provides a more viable and deliverable project to contribute much-needed generation capacity to the system over the coming years.
- The need for flexible generation capacity of this type is clearly established, as detailed in Section 3 of this Statement. The National Development Plan (2021-2030) (NDP) is clear that maintaining security of energy supply is a key national priority for the coming decade and beyond. This has been further underlined by the Government's 'Policy Statement on Security of Electricity Supply', published in November 2021, and Eirgrid's 'Ireland Capacity Outlook 2022 – 2031', published in October 2022. The latest Climate Action Plan ('CAP23') also emphasises the need for urgent delivery of new gas-fired generation capacity.

¹ 3rd Floor, The Crescent Building, Northwood Park, Santry, Dublin 9, D09 X8W3

- The application is supported by a comprehensive Environmental Impact Assessment Report ('EIAR'). The headline findings of the EIAR are summarised in Section 5 of this Statement. For robustness, the EIAR has assessed the impact of the proposed 350MW OCGT plant alongside both the existing CCGT plant and the approved 299 OCGT plant. It has assumed that the Approved Development may proceed, in amended form², at some point in the future. It is assumed that the construction phase of the Approved Development (ABP-313538-22) would be before or after the construction of the Proposed Development (i.e. not concurrent and the peak periods would not overlap), and that for the operational phase both the Approved Development (in amended form) and the Proposed Development may operate concurrently in the future.
- The Proposed Development would have limited Environmental Impact as evidenced in the EIAR, which concludes that it will have no significant residual effects on the environment, with the exception of landscape and visual effects. EIAR Chapter 20 concludes that the Development will have slight to moderate adverse landscape and visual effects during construction and operation.
- The Proposed Development is consistent with, and contributes towards, the achievement of proper planning and sustainable development of the area in which it is located, in line with the policies and objectives of the relevant statutory plans, as detailed in Section 6 of this Statement. Notably, the Proposed Development will contribute to the achievement of targets outlined in the National Development Plan (NDP) and Climate Action Plan (CAP23) to deliver circa 2 GW of new conventional generation capacity by 2030 in order to maintain security of supply during this period of transition toward a more renewables-based system.
- The Proposed Development will provide a range of important benefits:
 - 350MW additional generation capacity to meet increasing electricity demand and address forecast capacity shortfalls;
 - A new source of backup power to complement renewable generation technologies and strengthen the electricity grid in the Galway area;
 - Support the Country in its transition to a renewables-based generation system and towards achieving net-zero emissions by 2050;
 - Significant private sector capital investment in the regional economy;
 - Up to 200 construction jobs as well as supply chain opportunities for local businesses;
 - Efficient use of vacant land adjoining an existing CCGT Power Station, benefitting from existing supply and transmission infrastructure; and
 - Supports economic development objectives which rely on secure energy supply.

² Maintaining the OCGT Plant, AGI and Fuel Tanks as approved, but amending the form and layout of the northern part of the site (Workshop, Stores, Administration Building).

- Considering the urgent need for the Proposed Development, its compliance with planning policy, and its limited environmental impact it is respectfully requested that permission is granted for this much-needed development without delay.

1.0 Introduction

- 1.1 This Statement is provided in support of a SID planning application by EP Energy Developments Ltd.³ ('the Applicant') for a new 350MW Open Cycle Gas Turbine ('OCGT') power plant and associated infrastructure on vacant land to the north of the existing Tynagh Power Station in Derryfrench, Tynagh, Loughrea, Co. Galway.

Description of Development

- 1.2 The Proposed Development description, as contained on the statutory notices for the planning application, reads as follows:

An Open Cycle Gas Turbine power plant (350MW) and associated infrastructure on land to the north of Tynagh Power Station, Derryfrench, Tynagh, Loughrea, Co. Galway.

The proposed development will include: Demolition of existing vacant shed structure on site; Installation of an Open Cycle Gas Turbine (OCGT) unit and associated plant [Including GT enclosure; air intake; stack (40m high) with Continuous Emissions Monitoring System (CEMS); circuit breaker; main, auxiliary and ancillary transformers; switchyard; acoustic barriers; electrical rooms; finfan coolers; skids (to include gas skid, distillate fuel skid, lube oil skid, CO2 fire-fighting skid); propane store; pump out kiosk; gantry; hardstanding maintenance area]; Lubrication oil and chemical stores [3 no. shed structures]; Secondary fuel storage area [1 no. bunded fuel oil storage tank; fuel treatment plant; fuel forwarding building; fuel unloading area]; Fuel pipe gantry; Demineralised water storage tank and pumphouse; Firewater storage tank and pumphouse; Emergency diesel generator; Above Ground Installation ('AGI') to facilitate connection to existing gas pipeline; A new 220 kV switchyard bay within the existing electricity substation; And all associated ancillary development, site works and services including underground pipework and cabling, upgraded wastewater treatment plant, drainage infrastructure, fencing, internal roadways, lighting, etc.

- 1.3 The main component of the Proposed Development is a 350 MW OCGT power plant, fuelled by natural gas, which will operate as a 'peaking plant'. The proposed OCGT will be capable of starting up rapidly to provide backup power generation when there is a gap between renewable power generation and demand. The Proposed Development will help to facilitate the continued expansion of Ireland's renewable generation capacity while maintaining security of supply.

³ 3rd Floor, The Crescent Building, Northwood Park, Santry, Dublin 9, D09 X8W3

- 1.4 Electricity transmission will be ancillary to the plant, carrying electricity underground from the main transformer to the existing electrical substation to the south, where a new bay will be installed. There are no alterations proposed to the electricity network outside of the site as part of this development. The presence of the existing gas and electricity infrastructure at Tynagh Power Station is a key benefit of the site.
- 1.5 The key elements of the project are the OCGT unit and associated balance of plant and equipment; emissions stack, acoustic barriers; a secondary fuel storage and unloading facility; distillate fuel gantry, water storage tanks, gas AGI and electrical substation connection. No natural gas storage is proposed.

Need for Development

- 1.6 The Development is urgently needed to provide added resilience to Ireland's electricity grid and address forecast electricity capacity shortfalls in the coming years.
- 1.7 The need for the Proposed Development is clearly established. The National Development Plan (2021-2030) (NDP)⁴ is clear that maintaining security of energy supply is a key national priority for the coming decade and beyond. This has been further underlined by the Government's 'Policy Statement on Security of Electricity Supply'⁵, published in November 2021, and Eirgrid's 'Ireland Capacity Outlook 2022 – 2031', published in October 2022⁶. The latest Climate Action Plan ('CAP23') also emphasises the need for urgent delivery of new gas-fired generation capacity⁷.
- 1.8 The NDP identifies an *urgent requirement* to deliver circa 2 GW of new conventional (mainly gas-fired) generation capacity by 2030, alongside c. 15.5 GW of new renewable capacity within the next ten years just to keep pace with increased demand for electricity, with Eirgrid's Capacity Outlook forecasting capacity deficits for each year up to 2031. The position is stark, and has been exacerbated by:
- Lower than expected availability of some existing power stations
 - Anticipated new power stations not being developed as planned
 - Exceptional growth in demand for electricity due to increased economic activity, including the growth of large energy users such as data centres
 - The expected closure over the coming years of power stations which make up approx. 25% of existing conventional generation capacity
- 1.9 Approximately 1,650MW of generation capacity is scheduled to be retired in the Republic of Ireland over the coming years, with a further 500-600MW retiring in

⁴ <https://www.gov.ie/en/publication/774e2-national-development-plan-2021-2030/>

⁵ <https://www.gov.ie/en/publication/a4757-policy-statement-on-security-of-electricity-supply/#>

⁶ https://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid_SONI_Ireland_Capacity_Outlook_2022-2031.pdf

⁷ <https://www.gov.ie/en/publication/7bd8c-climate-action-plan-2023/>

Northern Ireland. Risks around extended periods of low renewable generation output and delays in the delivery of planned offshore capacity must also be countered.

- 1.10 New conventional generation capacity, in particular ‘open cycle’ technology which can respond quickly to shortfalls in power generation at times of high demand, is therefore essential and its delivery must be prioritised. This has been emphasised in a Departmental Circular Letter (12/2021) issued to An Bord Pleanála and the Directors of Planning of each local authority in December 2021. The Departmental Circular states that *“the development of new conventional generation (including gas-fired and gasoil distillate-fired generation) is a national priority”* and that the determination of applications for such infrastructure *“should be prioritised as much as possible”*.
- 1.11 The latest Climate Action Plan further emphasises the need for urgent delivery, stating that *“rapid delivery of flexible gas generation is required at scale and in a timeframe to replace emissions from coal and oil generation before the second budget period”* (2026-2030)⁸.
- 1.12 The Proposed OCGT plant is exactly the type of flexible gas generation capacity that is required. It provides quick response electricity generation capability which will help to maintain security of supply while supporting Ireland in its transition to a low carbon economy in line with NDP and CAP23 objectives. The Proposed Development will also help to replace generation capacity that will be lost through the planned retirement of more carbon-intensive power stations in the coming years.
- 1.13 The Applicant is acutely aware of the unprecedented pressure on the national grid at present and is committed to optimising the contribution of the Site and adjoining lands to maintaining security of supply in the coming years.
- 1.14 The need for the Proposed Development is considered further in Section 3 of this Statement.

Capacity Market

- 1.15 The proposed OCGT plant is to be delivered under the terms of a Capacity Auction that will be run by the Single Energy Market Operator (‘SEMO’) in Q3 2023, and is a separate project to the 299MW OCGT development on land to the south, which was approved by An Bord Pleanála (ABP-313538-22) on 8th February 2023.

Seventh Schedule Development

- 1.16 As the energy output of the proposed development will be 350MW it constitutes ‘Seventh Schedule’ development under the Planning and Development Act (‘A thermal power station or other combustion installation with a total energy output of

⁸ CAP23, p. 123

300 megawatts or more'). It constitutes 'Strategic Infrastructure Development' (SID) under the terms of Section 37A of the Act, as it is clearly of strategic economic importance to the State and the region. Furthermore, it will contribute significantly to the realisation of national and regional planning objectives and will, in delivering a nationally significant quantum of flexible, fast start-up generation capacity to the grid, have effects far beyond the local planning authority area in which it is situated.

- 1.17 An Bord Pleanála issued confirmation of the SID status of the Proposed Development by way of a Determination issued in May 2023⁹. It has instructed that an application for the Proposed Development must be made direct to An Bord Pleanála under Section 37E of the Act.

Location of Development

- 1.18 The Proposed Development is situated on land to the north of the existing Tynagh Power Station in Derryfrench, Tynagh, Loughrea, Co. Galway (Grid Reference X: 174450; Y213165) ('the Site'). The Site area measures 8.3 hectares and is wholly located within the administrative area of Galway County Council ('GCC'). A description of the Site and its surroundings is provided in Section 2.
- 1.19 The Site benefits from proximity to a range of supply and transmission infrastructure including a high pressure buried gas pipeline, an electricity substation and a 220kV overhead power line. It is ideally suited for the provision of new generation capacity.

Compliance with Policy

- 1.20 This Statement demonstrates that the Proposed Development is consistent with, and contributes towards, the proper planning and sustainable development of the area in which it is located, in line with the policies and objectives of the relevant statutory plans.
- 1.21 The policy context is outlined in Section 4 of this Statement.

Development Benefits

- 1.22 The Proposed Development will provide a range of important benefits:
- 350MW additional generation capacity to meet increasing electricity demand and address forecast capacity shortfalls;
 - A new source of backup power to complement renewable generation technologies and strengthen the electricity grid in the Galway area;
 - Support the Country in its transition to a renewables-based generation system and towards achieving net-zero emissions by 2050;

⁹ A copy of which is included with the planning application.

- Significant private sector capital investment in the regional economy;
 - Up to 200 construction jobs as well as supply chain opportunities for local businesses;
 - Efficient use of vacant land adjoining an existing Power Station, benefitting from existing supply and transmission infrastructure; and
 - Supports economic development objectives which rely on secure energy supply.
- 1.23 The application is supported by a comprehensive Environmental Impact Assessment Report (EIAR). This Statement should be read in conjunction with the Environmental Impact Assessment Report (EIAR), which has been prepared by AECOM on behalf of the Applicant.
- 1.24 This Planning Statement provides detail on the Site, the nature and extent of the Proposed Development, the planning context applying and the comprehensive assessment of environmental impact that has been undertaken. It should be read in conjunction with the full suite of drawings and documents submitted with the application, and is set out as follows:
- Section 1 - Introduction
 - Section 2 - Site Details
 - Section 3 - Proposed Development
 - Section 4 - Policy Context
 - Section 5 - Environmental Impact
 - Section 6 - Planning Assessment
 - Section 7 - Conclusion

2.0 Site Details

2.1 Site Description

2.1.1 The Proposed Development is situated in the townland of Derryfrench, Tynagh, Loughrea, Co. Galway (Grid Reference X: 174450; Y:213165). The Site is located to the north of the existing Tynagh Power Station, approximately 1.5km north of Tynagh Village. The Site area is 8.3 hectares.

2.1.2 The Proposed Development area is part of the former Tynagh Mine complex and is of a brownfield character. The area in which it sits is classified in the County Development Plan as being of low landscape value and sensitivity.

2.1.3 It formerly served as a construction compound for the existing Tynagh Power Station, and includes the remains of a structure which dates from the construction period (which is to be demolished as part of the proposed development). There are existing high voltage overhead power lines running through the centre of the site, which connect to the existing ESB substation to the south.

2.2 Surrounding Area

2.2.1 Lands surrounding the existing Power Station are typically rural in nature, principally agricultural pastureland with hedgerows, stone walls and undulating terrain. The existing Power Station buildings, internal road, fencing and a tailing pond are adjacent to the south of the Site, an enclosed former mine lagoon is positioned southeast of the Site, and the Sperrin Galvanisers Ltd. (IPPC) licensed facility is located to the west. Within the wider area the Site is surrounded by the following features:

- Within – former mine brownfield
- North-west – existing woodland and residential properties with outbuildings (440m)
- North-east – Milchem Equestrian Centre (330m);
- East – Mine tailing pond (40m);
- West – LP4310 Gurtymadden (note - some public documents refer to this road as ‘Gortymadden’) to Tynagh Road (300m) and residential property west of LP4310 (330m);
- South-west – Industrial buildings of Sperrin Galvanisers (100m) and residential properties at Derryfrench (420m);and
- South – Mine lagoon (280m), residential property (700m), industrial buildings (1.4km), and village of Tynagh (1.8km).

2.2.2 Further details of the Site and surrounding environment are available within the EIAR Chapter 4 (Volume I).

- 2.2.3 The Proposed Development provides a valuable opportunity to make more efficient use of vacant land adjoining an existing power station and associated infrastructure.

2.3 Planning History

Site

- 2.3.1 The Site lies to the north of the existing Tynagh Power Station which was permitted by Galway County Council in 2003 (Planning reg. ref. 03/2943 & 04/2511). The existing gas AGI within Tynagh Power Station was also permitted by Galway County Council in 2004 (Planning reg. ref. 04/2193).
- 2.3.2 In April 2022 Galway County Council ('GCC') issued notification of a decision to grant planning permission to the Applicant for a separate OCGT development within the existing power station site, comprising a new 299 MW Open Cycle Gas Turbine ('OCGT') plant and associated infrastructure and buildings. This decision was appealed by An Taisce on 11th May 2022 and was granted by An Bord Pleanála (ABP-313538-22) on 8th February 2023. The Applicant is unable to implement this permission for the foreseeable future due to a range of viability constraints.
- 2.3.3 In April 2023, the Applicant submitted a pre-application consultation request to An Bord Pleanála (ABP-316843-23) regarding the potential SID status of additional plant at the approved 299MW OCGT (ABP-313538-22). This additional plant would facilitate an additional 51MW of generation capacity to delivered by the OCGT, bringing the overall capacity to 350MW. Due to viability constraints affecting the Approved Development the proposal was withdrawn on 1 August 2023. Further planning history detail for the Site is provided in Table 2.1 below.

Reference	Date submitted	Applicant name	Location and description	Status
03/2943	09/04/2003	Mountside Properties Ltd.	Derryfrench, Tynagh, Loughrea Construction of electricity generating facility.	Granted with conditions on 22/09/2003
04/2511	31/05/2004	Tynagh Energy Limited	Derryfrench, Tynagh, Loughrea (1) amendment of buildings and structures previously permitted under Planning Ref 03/2943 and	Granted with conditions on 22/07/2004

Reference	Date submitted	Applicant name	Location and description	Status
			(2) the construction of gate house, fin-fan cooler, carpark in switch yard, gas cylinder storage shed, feed pump building, emergency generator and liquid fuel unloading station.	
04/2193	13/05/2004	Michael Dufficy, c/o. Bord Gais Eireann	Derryfrench, Tynagh, Loughrea Natural gas pressure reducing station consisting of 4 no. single storey buildings, fenced area and associated pipe work. Gross floor space of proposed new buildings 115 sq.m.	Granted with conditions on 06/07/2004
21/2192	24/11/2021	EP Energy Developments Ltd.	Derryfrench, Tynagh, Loughrea Construction of a OCGT, comprising a new 299 MW Open Cycle Gas Turbine ('OCGT') plant and associated infrastructure and buildings.	Granted with conditions by ABP (ref: (ABP-313538-22)) on 8 th February 2023.

Table 2.1 Site planning history

Surrounding Area

- 2.3.4 The 220kV overhead power line which connects the existing CCGT Power Station to the ESB transmission network to the north was permitted by Galway County Council in 2004 (Planning reg. ref. 04/1974). Detail of this application is provided in Table 2.2 below.

Reference	Date submitted	Applicant name	Location and description	Status
04/1974	29/04/2004	Tynagh Energy Limited	Cloonprask 220 kV overhead transmission line from ESB transmission network to 400 MW power station.	Granted with conditions on 22/06/2004

Table 2.2 Overhead line application

2.3.5 Several planning applications have been approved over the last five years within 1km of the Site, or are currently under consideration. Details of these are provided in Table 2.3 below.

Reference	Date submitted	Applicant name	Location and description	Status
23203	18/05/2023	James Brown	Rahyconor Retention permission for the reconstruction and extension of fully serviced private dwelling house to include a new porch; 2. Conversion of existing building to habitable use; and 3. Private garage / store to include all associated works.	Further information requested on 12/07/2023. No response submitted at time of writing.
23190	11/05/2023	Lorcan Byrne	Shanvoher Construction of a single dwelling with wastewater treatment system and private store, to include all associated site works.	Further information requested issued on 05/07/2023. No response issued at time of writing.
22454	05/04/2022	Cathal Con	Rahyconor For construction of a dwelling house and domestic garage; new sewage treatment system and percolation area; all	Granted with conditions 05/09/2022

Reference	Date submitted	Applicant name	Location and description	Status
			associated site works and services including a new site entrance. Gross floor space of proposed works; 287sqm.	
20/1972	18/12/2020	S. Loughrey & N. Briscoe C/o OPC Design & Planning	Derryfrench For the construction of a Dwelling House, Domestic garage, Treatment Unit, Percolation area and all associated site services. Gross floor space of proposed works: 270m ² . This development is situated approximately 350m to the West of the Site.	Granted with conditions on 07/06/2021
19/633	26/04/2019	Sperrin Galvanisers (IRE) Ltd.	Derryfrench To extend workshop and to complete all associated site works. Permission is also sought to erect acoustic fencing along a section of the existing site boundary. The site is located within the confines of a Major Accident Site under the Seveso Directive. Gross floor space of proposed works: 600m ² This development adjoins the Site along its Western boundary.	Granted with conditions on 29/07/2019
18/221	26/02/2018	Sperrin Galvanisers (IRE) Ltd.	Derryfrench To extend workshop and complete all associated site works. Permission is	Granted with conditions

Reference	Date submitted	Applicant name	Location and description	Status
			<p>also sought to erect acoustic fencing along a section of the existing site boundary. Gross floor space of proposed works 600m². The Site is located at Derryfrench, Tynagh, Co. Galway and is within the confines of a Major Accident Site as determined by the Seveso Directive.</p> <p>This development adjoins the Site along its Western boundary.</p>	on 20/04/2018

Table 2.3 Historic planning applications within 1km of the Site

3.0 Proposed Development

3.1 The Applicant

- 3.1.1 The Applicant, EP Energy Developments Ltd., is a subsidiary of EP UK Investments Ltd. (EPUKI), which owns and operates a number of power stations in Ireland and the UK.
- 3.1.2 These include the existing Tynagh Power Station, Kilroot Power Station and Ballylumford Power Station in Northern Ireland and, in Great Britain, Langage Power Station and South Humber Power Station which are gas-fired power stations located near Plymouth, Devon and Immingham, North-East Lincolnshire, and Lynemouth Power Station, a biomass fuelled power plant in Northumberland. EPUKI also owns sites with consent for new power stations in Norfolk, North-East Lincolnshire and North Yorkshire.
- 3.1.3 EPUKI is a subsidiary of Energetický A Průmyslový Holding ('EPH'). EPH owns and operates energy generation assets in the Czech Republic, Slovak Republic, Germany, Italy, Hungary, Poland, Republic of Ireland and the United Kingdom.

3.2 Need for the Proposed Development

- 3.2.1 The National Development Plan (2021-2030) (NDP)¹⁰ is clear that maintaining security of energy supply is a key national priority for the coming decade and beyond. This has been further underlined by the Government's 'Policy Statement on Security of Electricity Supply'¹¹, published in November 2021, and Eirgrid's 'Ireland Capacity Outlook 2022 – 2031', published in October 2022¹². The latest Climate Action Plan ('CAP23') also emphasises the need for urgent delivery of new gas-fired generation capacity.
- 3.2.2 The Proposed Development is urgently needed to provide resilience to Ireland's electricity grid and address forecast electricity capacity shortfalls. The proposed OCGT peaking plant will support intermittent renewable generation technologies by running for short periods of time when there is insufficient electricity being generated from renewable technologies to meet demand. The Proposed Development will also help to replace the generation capacity lost through the planned retirement of more carbon-intensive power stations.
- 3.2.3 The Climate Action Plan 2023 (Published December 2022) sets out a 'roadmap' to achieve a net zero carbon energy system by 2050. It commits Ireland to aim for up to 80% of its electricity supply to be generated from renewables by 2030, with no generation from peat and coal. For the electricity sector, the need for additional gas-

¹⁰ <https://www.gov.ie/en/publication/774e2-national-development-plan-2021-2030/>

¹¹ <https://www.gov.ie/en/publication/a4757-policy-statement-on-security-of-electricity-supply/#>

¹² https://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid_SONI_Ireland_Capacity_Outlook_2022-2031.pdf

fired generation capacity is clear. The Plan states that ‘*rapid delivery of flexible gas generation is needed at scale and in a timeframe to replace emissions from coal and oil generation before the second budget period*’ (i.e. 2026 – 2030)¹³. Accordingly, the key measures for the sector include that “*The CRU and EirGrid will ensure an adequate level of conventional dispatchable generation capacity and deliver at least 2 GW of new flexible gas-fired generation*”¹⁴.

- 3.2.4 The need to develop new backup gas power generation plants, such as the proposed development, to facilitate the increased uptake of renewable technologies and support the Government’s climate reduction targets as well as providing improved security of supply is well established, as discussed further below.

Government White Paper – Ireland’s Transition to a Low Carbon Energy Future 2015-2030

- 3.2.5 ‘Ireland’s Transition to a Low Carbon Energy Future 2015- 2030’ (Government White Paper) sets out a framework to guide National policy in the energy sector up to 2030 and, in some cases, to 2050 taking account of European and international climate change objectives.
- 3.2.6 The ‘Energy Vision 2050’ established in the White Paper aims to reduce greenhouse gas (GHG) emissions from the energy sector to between 80% and 95% of 1990 levels. To achieve this transition to low carbon energy, energy supply will need to be diversified to include a greater share of renewable generation sources and shift away from reliance on carbon-intensive fuels such as peat and coal in favour of lower carbon fuels like natural gas. The White Paper notes that:

“No single renewable energy technology - existing or emerging - will alone enable Ireland to overcome the low carbon challenge. Rather, a diverse range of technologies will be required along the supply chains for electricity, heat and transport”¹⁵.

“Onshore wind continues to be the main contributor (18.2% of total generation and 81 % of RESE in 2014). It is a proven technology and Ireland’s abundant wind resource means that a wind generator in Ireland generates more electricity than similar installations in other countries. This results in a lower cost of support. Due to the variability of wind conditions, wind generation poses challenges to the operation of electricity grids. In Ireland, these challenges are being addressed by the electricity system operators under their DS3 programme”¹⁶. (emphasis added)

¹³ CAP23, Page 123

¹⁴ CAP23, Page 139

¹⁵ Paragraph 103, Government White Paper – Ireland’s Transition to a Low Carbon Energy Future 2015-2030 (19/06/2020) Department of the Environment, Climate and Communications

¹⁶ Paragraph 128, Government White Paper – Ireland’s Transition to a Low Carbon Energy Future 2015-2030 (19/06/2020) Department of the Environment, Climate and Communications

3.2.7 The Proposed Development will provide quick response capabilities to EirGrid as part of the DS3 Programme ('Delivering a Secure, Sustainable Electricity System'). It will help to ensure that the electricity grid network can operate reliably and efficiently with the integration of additional renewable generation.

National Development Plan 2021-2030

3.2.8 The renewed NDP was published on 4th October 2021 and will guide national investment decisions up to 2030. The NDP aims to facilitate the implementation of the 'National Strategic Outcomes' contained in the National Planning Framework (NPF) and address the challenges posed by current issues such as climate action and population growth.

3.2.9 In the context of the energy sector, the principal objective of the NDP is to assist in ensuring a *'long-term, sustainable and competitive energy future for Ireland'*. The NDP's focus for investment in the energy system is to:

- *'ensure that it meets the challenge of integrating world-leading levels of renewable wind and solar electricity whilst ensuring security of supply; and*
- *ensure that it is fit for purpose in the medium- to longer-term in order to meet projected demand levels.*^{17'}

3.2.10 The NDP emphasises that ensuring continued security of energy supply is a priority at national level and within the overarching EU policy framework and acknowledges that achieving the decarbonisation of energy supply presents a significant challenge in the face of rapidly increasing electricity demand.

3.2.11 Energy demand over the next 10 years will be driven by increasing demand from large energy users, continued population growth and the increased electrification of transportation and buildings. For example, the NDP notes that *'electricity demand from large energy users, including data centres, is forecast to grow to up to 27% of total power demand in 2030'*^{18'}.

3.2.12 The NDP commits to achieving up to 80% of Ireland's electricity capacity from renewable sources by 2030, which will require investment in renewable electricity generation and storage as well as conventional electricity generation capacity to support the operation of variable renewable technologies and provide security of supply. The NDP aims to deliver circa 15.5 GW of renewable generation capacity over the next ten years alongside circa 2 GW of conventional capacity¹⁹.

¹⁷ p 126, National Development Plan 2021-2030 (4/10/2021) Department of Public Expenditure and Reform

¹⁸ p 123, National Development Plan 2021-2030 (4/10/2021) Department of Public Expenditure and Reform

¹⁹ p 122, National Development Plan 2021-2030 (4/10/2021) Department of Public Expenditure and Reform

3.2.13 Strategic Investment Priority no. 4 of the NDP aims to:

'deliver 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 demand²⁰.

3.2.14 The NDP notes that, notwithstanding the significant investment in conventional generation capacity that is required over the next ten years, the proportion of electricity generated by natural gas is expected to decrease from circa 50% to circa 30% by 2030 because *'conventional generation plant will spend much of its time in reserve and will only operate when required to balance the system in times of high demand and low wind/solar generation²¹.*

Ireland Capacity Outlook 2022-2031

3.2.15 EirGrid's latest capacity outlook identifies capacity deficits for each year up to 2031. It states that *"there is no question that the current outlook, based on the best information available, is serious"* and that, to address the challenge, *"a balanced portfolio of new capacity is required and this includes the need for new cleaner gas fired generation plant"*. It highlights the need for *"the delivery, through the all-island capacity auctions, of over 2,000 MW of enduring flexible gas-fired generation capacity"* by 2030 alongside additional measures including the procurement of temporary emergency generation capacity and extending the operation of older generators²².

Summary

3.2.16 There is now an urgent need to develop new responsive gas-fired power plants, such as the Proposed Development, to support the Government's renewable energy commitments and to ensure security of electricity supply over the next five to ten years. The Proposed OCGT plant is designed for this purpose. It provides quick response generation capability which will help to ensure security of supply over the coming years.

²⁰ p 123, National Development Plan 2021-2030 (4/10/2021) Department of Public Expenditure and Reform

²¹ p 125, National Development Plan 2021-2030 (4/10/2021) Department of Public Expenditure and Reform

²²https://www.eirgridgroup.com/sitefiles/library/EirGrid/EirGrid_SONI_Ireland_Capacity_Outlook_2022-2031.pdf, pages 4 – 6

3.3 Description of Development

3.3.1 The Proposed Development description reads as follows:

An Open Cycle Gas Turbine power plant (350MW) and associated infrastructure on land to the north of Tynagh Power Station, Derryfrench, Tynagh, Loughrea, Co. Galway.

The proposed development will include: Demolition of existing vacant shed structure on site; Installation of an Open Cycle Gas Turbine (OCGT) unit and associated plant [Including GT enclosure; air intake; stack (40m high) with Continuous Emissions Monitoring System (CEMS); circuit breaker; main, auxiliary and ancillary transformers; switchyard; acoustic barriers; electrical rooms; finfan coolers; skids (to include gas skid, distillate fuel skid, lube oil skid, CO2 fire-fighting skid); propane store; pump out kiosk; gantry; hardstanding maintenance area]; Lubrication oil and chemical stores [3 no. shed structures]; Secondary fuel storage area [1 no. bunded fuel oil storage tank; fuel treatment plant; fuel forwarding building; fuel unloading area]; Fuel pipe gantry; Demineralised water storage tank and pumphouse; Firewater storage tank and pumphouse; Emergency diesel generator; Above Ground Installation ('AGI') to facilitate connection to existing gas pipeline; A new 220 kV switchyard bay within the existing electricity substation; And all associated ancillary development, site works and services including underground pipework and cabling, upgraded wastewater treatment plant, drainage infrastructure, fencing, internal roadways, lighting, etc.

3.3.2 The main element of the Proposed Development is a 350 MW OCGT fuelled by natural gas, which will operate as a 'peaking plant'. The proposed OCGT will spend most of its time on standby and will be capable of starting up rapidly to provide backup power generation when needed.

Components of Proposed Development

3.3.3 The Proposed Development will comprise the following main components:

Open Cycle Gas Turbine

- OCGT unit comprising a single gas turbine and a single alternating current (AC) generator. The generator and gas turbine will be housed in separate acoustic enclosures with ventilation ducts.
- Emissions stack will be a height of 40m diameter and will be fitted with a continuous emissions monitoring system (CEMS) to monitor flue gas composition.
- Outdoor step-up transformer to increase the voltage of the generated power to a level suitable for export to the existing electrical substation to the south.
- Forced air cooling radiators will be used to manage waste heat from the lubrication oil and other essential systems when operational.
- Ancillary systems will be in containers and enclosures adjacent to the gas turbine.

Secondary Fuel Storage Facility

- The proposed plant is required under the Grid Code to maintain a secondary fuel supply of approximately 6,600m³(~5,400 tonnes) to be stored in a tank within a bunded area on site. The purpose of this secondary fuel is to ensure that power can still be supplied to the electricity network in the event of an interruption to supply from the gas network. The secondary fuel will only be used for testing and in the highly unlikely event that both the gas connection is unavailable and other generation capacity on the transmission grid cannot meet demand.
- A fuel treatment plant will be required to remove any contaminants from the secondary fuel that may accumulate during storage, which will be collected in a tank contained within the bunded area prior to its safe disposal.
- The secondary fuel will be received via road tanker at an unloading area adjacent to the bunded area and transferred to the tank via unloading pumps.
- A fuel forwarding pump set will forward the secondary fuel from the storage area to the plant when required.

Gas AGI Connection

- A new gas AGI will be provided to the west of the plant to facilitate connection to the gas transmission network. The AGI will have an area of 1800m² and will be connected to the OCGT by a pipeline measuring c. 260m.
- The facility has been designed to Gas Network Ireland (GNI) specifications and will be similar in nature to the existing AGI on site. The detailed design of the AGI will be completed by GNI. It will include a pressure reduction station, preheating equipment, metering equipment and various shutoff and control valves.

Electrical substation connection

- The existing substation will be updated with the addition of a new 220 kV bay and bus section. The ancillary infrastructure will be constructed by ESB Networks.
- The proposed plant will be connected to this new electrical bay via buried cables that will be approximately 194m long.

Demineralised Water Tank

- The proposed plant will have a 6,000m³ demineralised water storage tank which will be used for power augmentation of the gas turbine to achieve 350MW output. This will be sufficient water for 3 days continuous operation at base load.

Fire Water Tank

- A fire water tank with a capacity of 1000m³ is required for IE license compliance. This will be located to the west of the OCGT as part a full site fire safety system.

Lubrication Oil and Chemical Stores

- The proposed plant will have 3 lubrication oil and chemical store buildings located to the north of the OCGT.

Emergency Diesel Generator

- An emergency diesel generator will be located to the south of the fuel storage area and west of the demineralised water tank. It will be for limited and emergency use only (i.e. 15 mins testing per month and 4 hours run time in the event it is required).

3.3.4 In connection with and in addition to the above, the following infrastructure will be included:

- internal roads
- external lighting
- security fencing and gates;
- utilities, pipes, cables and connection to surface water drainage systems
- pipe gantries
- acoustic barriers
- stores
- hardstanding maintenance area
- skids

3.3.5 Full detail of the Proposed Development is set out in Chapter 5 of the submitted Environmental Impact Assessment Report.

Operation of Proposed Development

3.3.6 The OCGT facility will operate as a peaking plant. Its purpose is to start up on demand in order to respond rapidly to fluctuations in supply. This type of flexible, fast start-up generation capacity is urgently needed to ensure security of supply to electricity users in an increasingly renewables-based system.

3.3.7 The Proposed Development will be started and stopped automatically under the supervision of trained operators in response to requests for power from the electricity grid operator. The OCGT plant is specifically designed to start-up, shutdown and ramp (change its output) rapidly in response to changes in the requirement for power from the electricity grid.

3.3.8 The proposed 350MW OCGT plant and the existing CCGT plant at Tynagh will operate independently of one another. It would also operate independently of the OCGT plant approved by An Bord Pleanála (ABP-313538-22) in February 2023. It should be noted however, that the Applicant is unable to implement the approved development for the foreseeable future due to a range of viability constraints.

3.3.9 The existing substation on-site will be updated with the addition of a new 220 kV bay to facilitate connection of the proposed plant. The plant will be connected to the new substation bay by underground cables approx. 200m in length. There are no alterations proposed to the electricity network outside of the site as part of this development. A new gas AGI ('Above Ground Installation') will be provided to connect the proposed plant to the gas transmission network. The presence of the existing gas and electricity infrastructure at Tynagh is a key benefit of the site.

3.4 Pre-Application Consultation

3.4.1 This section outlines consultation undertaken in relation to the Proposed Development prior to submission of the planning application and EIAR. EIAR Chapter 6 provides further detail of the pre-application consultation.

Strategic Infrastructure Development Pre-Application Consultation

3.4.2 The Applicant submitted a request to An Bord Pleanála in November 2022 to enter into pre-application consultation under Section 37B of the Planning and Development Act 2000 (as amended) and attended a pre-application meeting with the Board on 18th January 2023. The principal matters discussed related to the need for the proposal, the planning history of the site, alternatives considered and issues pertaining to the development in terms of planning policy and potential environmental impacts.

3.4.3 Formal closure of the Pre-Application Consultation process was requested by the Applicant on 25th January 2023.

3.4.4 The Board issued a Determination on 11th May 2023 confirming that the Proposed Development would fall within the scope of paragraphs 37A(2)(a) and (b) of the Act and would be Strategic Infrastructure within the meaning of section 37A of the Planning and Development Act, 2000, as amended. Therefore, an application for permission for the Proposed Development must be made directly to An Bord Pleanála under Section 37E of the Act (refer to Appendix 6B, EIAR Volume II, for An Bord Pleanála's response to the pre-application consultation).

3.4.5 The red line boundary of the Proposed Development has been amended since the ABP Determination was issued, to provide for a revised gas AGI location and connection to the existing electricity substation. These elements are entirely ancillary to the proposed OCGT power plant and do not impact on its status as SID.

Statutory Consultation and Public Notices

3.4.6 In accordance with the requirements for public notices set out under Section 214 of the Planning and Development Regulations 2001, as amended, the applicant has notified the public of this application by means of erecting site notices on the relevant lands and publishing a newspaper notice in 2 no. newspapers approved by Galway County Council and in circulation in the area. Copies of the site notice and newspaper notices are included in the planning application pack.

3.4.7 In addition, an application website has been created, which is referenced in the public notices and contains a full set of the submitted application documents for ease of inspection by members of the public.

3.4.8 The application relates to an establishment which is classified as Lower Tier COMAH site, falling under the requirements of the Control of Major Accident Hazard (COMAH)

Regulations, 2015, and the Health and Safety Authority (HAS) will be notified accordingly.

Prescribed Bodies

3.4.9 The Applicant has also notified a number of Prescribed Bodies as listed within An Bord Pleanála's Determination letter.

4.0 Policy Context

4.1 Introduction

- 4.1.1 This Section sets out the planning policy context at national, regional and local level as it applies to the Proposed Development. Energy policy in Ireland is driven by international climate change agreements to increase renewable energy generation. The European Commission's 2030 Climate and Energy Framework, published following the Paris Agreement, sets a binding target of at least 32% of renewable energy for EU member states by 2030. Ireland's Climate Action Plan 2023 commits Ireland to aim for at least 80% of electricity supply to be generated from renewables by 2030.
- 4.1.2 As identified in Section 3.2 of this Statement, a wide range of policy and guidance documents, including Ireland's Climate Action Plan (2023) and the National Development Plan, recognise that achieving significant increases in renewable generation will require investment in renewable generation capacity and associated systems, such as OCGT peaking plants, to manage intermittent power supply.

4.2 National Policy

Ireland's Transition to a Low Carbon Energy Future 2015-2030

- 4.2.1 The Government White Paper entitled 'Ireland's Transition to a Low Carbon Energy Future 2015-2030' set out a framework to guide Ireland's energy policy development over the period 2015-2030. The framework takes account of European and international climate change objectives.
- 4.2.2 The 'Energy Vision 2050' established in the White Paper describes a 'radical transformation' of Ireland's energy system, which it is hoped will result in GHG emissions from the energy sector reducing by between 80% and 95%, compared to 1990 levels. This means that energy supply during the national transition to a renewable energy system will need to move away from carbon-intensive fuels such as peat and coal in favour of lower carbon fuels like natural gas. The White Paper notes that:

"Renewable energy will also play a central role in the transition to low carbon energy. No single renewable energy technology - existing or emerging - will alone enable Ireland to overcome the low carbon challenge. Rather, a diverse range of technologies will be required along the supply chains for electricity, heat and transport"²³.

"Onshore wind continues to be the main contributor (18.2% of total generation and 81% of RES-E²⁴ in 2014). It is a proven technology and Ireland's abundant wind resource means that a wind generator in Ireland generates more electricity than similar installations in other countries. This results in a lower cost of support."²⁵

²³ Department of Communications, Climate Action and Environment (DECC). (2015). The White Paper: Ireland's Transition to a Low Carbon Energy Future 2015-2030. (Para 103, Page 48)

²⁴ Electricity generated from renewable sources

²⁵ Department of Communications, Climate Action and Environment (DECC). (2015). The White Paper: Ireland's Transition to a Low Carbon Energy Future 2015-2030. (Para 128, Page 53)

“Several forms of RES-E, such as wind, solar and ocean energy are reliant on weather conditions and have an inherent variability. They cannot be dispatched in the same way as traditional generators and this presents challenges for the electricity system”²⁶ (emphasis added).

*“Due to the variability of wind conditions, wind generation poses challenges to the operation of electricity grids. In Ireland, these challenges are being addressed by the electricity system operators under their DS3 programme”.*²⁷

- 4.2.3 The DS3 programme’s stated aim is to *“meet the challenges of operating the electricity system in a secure manner while achieving the 2020 renewable electricity targets”*²⁸. The Proposed Development will provide quick response capabilities to EirGrid as part of the DS3 Programme (‘Delivering a Secure, Sustainable Electricity System’). It will help to ensure that the grid network can continue to operate efficiently with the integration of variable renewable energy sources.

National Planning Framework

- 4.2.4 ‘Project Ireland 2040 - National Planning Framework’, hereafter referred to as the NPF, is a 20-year planning framework designed to guide public and private investment, to create and promote opportunities for Irish citizens, and to protect and enhance Ireland's built and natural environment.

- 4.2.5 The NPF notes that the population of Ireland is projected to increase by approximately 1 million people by 2040, which will result in a population of roughly 5.7million. This growth will place increased demands on both the built and natural environment as well as the social and economic fabric of the country, not least in terms of energy supply. In order to strengthen and facilitate more environmentally focused planning at the local level, the NPF states that future planning and development will need to:

*“tackle Ireland's higher than average carbon-intensity per capita and enable a national transition to a competitive low carbon, climate resilient and environmentally sustainable economy by 2050, through harnessing our country's prodigious renewable energy potential.”*²⁹

- 4.2.6 The NPF notes that Ireland's National Energy Policy is focused on three pillars:
- Sustainability;
 - Security of Supply; and
 - Competitiveness.
- 4.2.7 In line with these pillars, National Strategic Outcome 8 (Transition to Sustainable Energy) notes that, in creating Ireland's future energy landscape, new energy systems

²⁶ Department of Communications, Climate Action and Environment (DECC). (2015). The White Paper: Ireland's Transition to a Low Carbon Energy Future 2015-2030. (Page 54)

²⁷ Department of Communications, Climate Action and Environment (DECC). (2015). The White Paper: Ireland's Transition to a Low Carbon Energy Future 2015-2030. (Para 128, Page 53)

²⁸ <http://www.eirgridgroup.com/site-files/library/EirGrid/DS3-Programme-Brochure.pdf> (Page 2)

²⁹ Project Ireland 2040 – National Planning Framework, DHPLG, February 2018

and transmission grids will be necessary to enable more distributed energy generation which connects established and emerging energy sources, i.e. renewables, to the major sources of demand. To facilitate this, the NPF acknowledges the need to:

“Reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres.”³⁰

4.2.8 Some other key National Policy Objectives aimed at achieving the transition to sustainable energy include:

- **National Policy Objective 52:** *The planning system will be responsive to our national environmental challenges and ensure that development occurs within environmental limits, having regard to the requirements of all relevant environmental legislation and the sustainable management of our natural capital;*
- **National Policy Objective 54:** *Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emission reduction; and*
- **National Policy Objective 55:** *Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050.*

4.2.9 The Proposed Development complements the national policy objectives around the creation of a lower carbon and more distributed energy generation system.

National Development Plan

4.2.10 The National Development Plan 2018 – 2027 (NDP) was introduced alongside the NPF and sets out the investment priorities that will underpin its implementation. It provides additional context for the assessment of projects such as that proposed. The NDP emphasises the need for investment in renewable energy sources, ongoing capacity renewal, and future technology that affords Ireland the opportunity to comprehensively decarbonise our energy generation.

4.2.11 The NDP was updated in October 2021. The updated NDP’s focus for investment in the energy network is to:

- *‘ensure that it meets the challenge of integrating world-leading levels of renewable wind and solar electricity whilst ensuring security of supply; and*
- *ensure that it is fit for purpose in the medium- to longer-term in order to meet projected demand levels.’³¹*

4.2.12 It emphasises that *‘ensuring continued security of energy supply is considered a priority at national level and within the overarching EU policy framework’³².*

³⁰ Government of Ireland, (2018). National Planning Framework. Project Ireland 2040 (Page 147).

³¹ Department of Public Expenditure and Reform, (2021). National Development Plan 2021-2030 (Page 126)

³² Department of Public Expenditure and Reform, (2021). National Development Plan 2021-2030 (Page 125)

- 4.2.13 The NDP recognises that the target of delivering up to 80% of Ireland’s electricity from renewable sources by 2030 will require investment in renewable electricity generation and storage **as well as** conventional electricity generation capacity to support the operation of variable renewable technologies and provide security of supply.
- 4.2.14 Strategic Investment Priority no. 4 aims to ‘*deliver circa 2GW 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*’³³.
- 4.2.15 The Plan clarifies that much of the 2GW of new conventional (mainly gas-fired) generation capacity needed will need to be delivered within the next five years to meet demand.

Policy Statement on Security of Electricity Supply (2021)

- 4.2.16 The Government’s Policy Statement on Security of Electricity Supply (November 2021) sets out a number of updates to national policy in the context of Programme for Government commitments relevant to the electricity sector, planning authorities and developers. It seeks to ensure that continued security of electricity supply is considered a priority at national level.
- 4.2.17 The policy 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.*

Eirgrid/SONI – Shaping our Electricity Future – A Roadmap to Achieve Renewable Ambition

- 4.2.18 Eirgrid’s ‘Shaping our Electricity Future’ document, also published in November 2021, “*identifies the transmission network reinforcements needed to manage renewable generation and demand growth*”. It provides an outline of the key developments needed to support a secure transition to at least 70% renewables on the electricity grid by 2030. Inherent to this is continuing to operate, develop and maintain a safe, secure, reliable, economical and efficient electricity transmission system with a view to ensuring that all reasonable demands for electricity are met.
- 4.2.19 The document is informed by extensive stakeholder and public engagement alongside comprehensive modelling and analysis of network reinforcements. It advises that “*gas-fired generation is expected to play an ongoing key role, replacing retiring conventional plant and providing multi-day capacity, during extended spells of low wind and solar output*”.

³³ Department of Public Expenditure and Reform, (2021). National Development Plan 2021-2030 (Page 125)

The Eirgrid/SONI Ireland Capacity Outlook 2022 - 2031

- 4.2.20 The latest all-Ireland Capacity Statement emphasises that the *“the current outlook, based on the best information available, is serious. It is likely that in the coming years we will experience system alerts and will need to work proactively to mitigate the risk of more serious impacts”*³⁴.
- 4.2.21 It predicts capacity deficits during the 10 years to 2031 and states that *“further new electricity generation will be required to secure the transition to high levels of renewable electricity over the coming decades”*. It is clear that this must include new gas-fired generation capacity: *“A balanced portfolio of new capacity is required and this includes the need for new cleaner gas fired generation plant”*³⁵.
- 4.2.22 It also recognises that this is essential in order for Ireland to achieve its carbon budgets for the electricity sector up to 2030: *“This balanced portfolio is also crucial to ensuring that Ireland meets its carbon budgets between now and 2030 for the electricity sector, which positions the electricity sector to achieve the zero net carbon target by 2050”*³⁶.
- 4.2.23 Reflecting and building upon the commitments stated within the NDP, it states that we must deliver *“over 2000MW of enduring flexible gas-fired generation capacity”* by 2030³⁷.

National Energy Security Framework (2022)

- 4.2.24 The National Energy Security Framework, published by the Government in April 2022, provides a further policy response to the challenges of ensuring long-term and ongoing security of energy supply. It sets out a ‘whole of Government’ response to the challenges posed to the state’s energy security and energy affordability in the context of recent events including the war in Ukraine. It recognises that the level of dispatchable electricity generation capacity needs to increase significantly over the coming years in order to reliably meet the expected demand for electricity.

Climate Action Plan 2023

- 4.2.25 The Climate Action Plan 2023 (Published December 2022) sets out a ‘roadmap’ to achieve a net zero carbon energy system by 2050. It commits Ireland to aim for up to 80% of its electricity supply to be generated from renewables by 2030, with no generation from peat and coal. To achieve Ireland’s targets under the Plan, a detailed sectoral roadmap setting out a range of measures and actions for each sector of the economy is included. For the electricity sector, the need for additional gas-fired generation capacity is clear. The Plan states that *‘rapid delivery of flexible gas generation is needed at scale and in a timeframe to replace emissions from coal and oil generation before the second budget period’* (i.e. 2026 – 2030)³⁸.

³⁴ Eirgrid/SONI (2022), Ireland Capacity Outlook 2022 – 2031 (Page 4)

³⁵ Eirgrid/SONI (2022), Ireland Capacity Outlook 2022 – 2031 (Page 5)

³⁶ Eirgrid/SONI (2022), Ireland Capacity Outlook 2022 – 2031 (Page 5)

³⁷ Eirgrid/SONI (2022), Ireland Capacity Outlook 2022 – 2031 (Page 6)

³⁸ CAP23, Page 123

4.2.26 Accordingly, the key measures for the sector include that *“The CRU and EirGrid will ensure an adequate level of conventional dispatchable generation capacity and deliver at least 2 GW of new flexible gas-fired generation”*³⁹.

National Hydrogen Strategy

4.2.18 The National Hydrogen Strategy was published in July 2023 and sets out a strategic vision for the role that hydrogen will play in Ireland’s energy system in the future, looking to its long-term role as a key component of a zero-carbon economy, and short-term actions that need to be delivered over the coming years to enable the development of the Sector.

4.2.19 The three key policy drivers of the Strategy are as follows:

- Decarbonising our economy: providing a solution for hard to decarbonise sectors where electrification is not feasible, or cost-effective;
- Enhancing our energy security, through the development of an indigenous zero carbon renewable fuel which can act as an alternative to the 77% of our energy system which today relies on fossil fuel imports; and
- Developing industrial opportunities, through the potential development of export markets for renewable hydrogen and other areas such as Sustainable Aviation Fuels.

4.2.20 It aims to develop a plan for transitioning the gas network to hydrogen over time and notes *‘that work to date has shown promising results in terms of the technical capability of the gas network to transport hydrogen blends up to 100%’*⁴⁰. It identifies flexible power generation as one of the first sectors that will develop as a significant end-user of renewable hydrogen but recognises that the transition to hydrogen will take time and it will not be until mid to late 2030s that a national hydrogen network emerges. It notes that *“hydrogen will not deliver significantly to Ireland’s energy security needs in the short term. In the interim, natural gas will be required to ensure continued security and resilience of Ireland’s energy”*⁴¹.

4.3 Regional Planning Policy

North-West Regional Assembly: Regional Spatial and Economic Strategy 2020-2032

4.3.1 The Regional Spatial and Economic Strategy (RSES) for the North-West region was adopted in 2020 and provides a high-level development framework for the region that supports the implementation of the NPF. It identifies ‘Five Growth Ambitions’ which aim to link strategic and operational challenges with prioritised capital interventions. One of these growth ambitions is ‘Infrastructure Ambition’, with the Strategy noting that the *‘provision and maintenance of economic infrastructure, such as energy,*

³⁹ CAP23, Page 139

⁴⁰ National Hydrogen Strategy, Section 4, Transportation, Storage and Infrastructure, page 49.

⁴¹ National Hydrogen Strategy, Section 4, Transportation, Storage and Infrastructure, page 62

*water, and wastewater, are key to delivering compact growth and a connected, vibrant, inclusive, resilient and smart region.'*⁴²

4.3.2 The following 'Regional Policy Objectives' aim to ensure that the development of the electricity network is undertaken in a safe and secure way which meets projected demand levels, Government Policy and the need to achieve a long-term, sustainable and competitive energy future for Ireland:

- **RPO 8.1** - *The Assembly support the development of a safe, **secure and reliable** electricity network and the transition towards a low carbon economy centred on energy efficiency and the growth projects outlined and described in this strategy. (emphasis added)*
- **RPO 8.2** - *Support the reinforcement and strengthening of the electricity transmission network with particular reference to the regionally important projects contained within Table 11.*
- **RPO 8.3** - *The Assembly support the necessary integration of the transmission network requirements to allow linkages with renewable energy proposals at all levels to the electricity transmission grid in a sustainable and timely manner.*
- **RPO 8.4** - *That reinforcements and new electricity transmission infrastructure are put in place and their provision is supported, 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. Ensure that development minimises impacts on designated areas.*

4.4 Local Planning Policy

4.4.1 This section describes the local development plan policies of relevance to the Proposed Development.

4.4.2 The local development plan policy context is contained within the Galway County Development Plan 2022-2028.

Galway County Council – County Development Plan 2022-2028

4.4.3 The Plan outlines the importance of having high quality energy infrastructure and also the importance of supporting the development of renewable energy sources in the interests of delivering on the National Climate Change Strategy and providing security of energy supply throughout the County and region. Chapter 7 of the Plan outlines the ambitions within the county to deliver infrastructure and utilities in a sustainable manner, recognising that this is of critical importance with regard to the future development of the county. Section 7.7 notes that a strong electricity infrastructure and transmission grid is *'essential for the county in order to attract and retain high-tech industrial investment, to ensure competitive energy supplies, to achieve balanced*

⁴² Northern and Western Regional Assembly. (2020). Northern and Western Assembly Regional Spatial and Economic Strategy (RSES), (Page 32).

*development, to reduce dependency on fossil fuels, and to achieve climate change targets*⁴³

4.4.4 The Plan states that it is the policy objective of the Council *‘to work in conjunction with Eirgrid to protect existing electricity infrastructure, and to facilitate the timely delivery of new electricity infrastructure.’*⁴⁴ Policy Objectives have been provided within the CDP to support this priority objective relating specifically to electricity and gas:

- **Policy EG 1 – Enhancement of Electricity Infrastructure** - *Support and promote the sustainable improvement and expansion of the electricity transmission and distribution network that supply the County, while taking into consideration landscape, residential, amenity and environmental considerations.*
- **Policy EG 2 – Delivery of Electricity and Gas Infrastructure** - *Support the provision and extension of electricity and gas transmission networks within the county which are critical to the economic development of the County subject to environmental quality, landscape, wildlife, habitats or residential amenity.*
- **Policy EG 3 – Power Capacity** - *To support and liaise with statutory and other energy providers in relation to power generation, in order to ensure adequate power capacity for the existing and future needs of the County.*
- **Policy EG 4 – Ireland’s Grid Development Strategy** - *Support the implementation of Ireland’s Grid Development Strategy, while taking into account landscape, residential, amenity and environmental considerations.*

4.4.5 Chapter 14 (Climate Change, Energy and Renewable Resource) of the Plan outlines the council’s ambitions to *‘reduce the carbon footprint by integrating climate action into the planning system in support of national targets, support indigenous renewable sources in order to reduce dependence on fossil fuels and improve security of supply and the move to a competitive low carbon economy’*⁴⁵. This section of the CDP states that is a strategic aim of the Council to *‘reduce the County’s CO₂ emissions by achieving international, national, regional and any local targets for achieving a low carbon economy by 2050’* and to reduce County Galway’s dependency on imported fossil fuels *‘and to provide alternative energy sources by harnessing the County’s potential for renewable energy sources while strengthening the grid transmission networks’*⁴⁶ (*emphasis added*). It sets out the following policy objectives for the county’s electricity and gas network:

- **Policy EG 1 – Gas Network and Generating Capacity** - *To support the development of the gas network and associated generating capacity in order to sustainably support and augment renewable electrical energy generated in County Galway.*
- **Policy EG 2 - Electricity Transmission Networks**

⁴³ Galway County Council (2022), Galway County Development Plan 2022-2028, Page 223

⁴⁴ Galway County Council (June 2022), Galway County Development Plan 2022-2028 (Page 151).

⁴⁵ Galway County Council (June 2022), Galway County Development Plan 2022-2028 (Page 263)

⁴⁶ Galway County Council (June 2022), Galway County Development Plan 2022-2028 (Page 264)

(a) *To support the development of the transmission grid network in order to sustainably accommodate both consistent and variable flows of renewable energy generated in County Galway.*

(e) *It is important that the necessary transmission and distribution infrastructure is facilitated and put in place in order to maximise the renewable energy potential of County Galway. Liaison with Eirgrid, as a TSO, and alignment with their transmission plans and strategies will be of vital importance in this respect.*

- **EG 3 Natural Gas and Synthetic Networks** - *To facilitate the delivery and expansion of the Natural Gas and Synthetic Gas infrastructure for storage, transmission and energy generation throughout the County for both domestic and business/industry use and to have regard to the location of existing gas infrastructure pipeline in the assessment of planning applications. (emphasis added)*

4.4.6 With reference to renewable energy generation, Policy RE7 states that it is an objective:

"To facilitate and support appropriate levels of renewable energy generation in County Galway, considering the need to transition to a low carbon economy and to reduce dependency on fossil fuels."

4.4.7 In meeting this objective the CDP (Section 14.8) recognises the need to ensure security of supply, noting that:

'With projected increases in population and economic growth, the demand for energy is set to increase in the coming years. A secure and resilient supply of energy is critical to a well-functioning economy, being relied upon for heating, cooling, and to fuel transport, power industry, and generate electricity.'⁴⁷ (emphasis added).

CDP Appendix 1: Local Authority Renewable Energy Strategy

4.4.8 To facilitate the sustainable growth of renewable energies a 'Local Authority Renewable Energy Strategy' (LARES) has been prepared for the county and is included as Appendix 1 of the CDP. Within the 'LARES' it is recognised that *'natural gas, particularly renewable and indigenous gas, will continue to have a role to play in the transition to a low carbon economy. As such, renewable energy developments may require support from such sources in times of high energy demand.'*⁴⁸ It goes on to state that *'the gas network plays a key role as part of the supporting infrastructure for renewable energy developments.'*⁴⁹

⁴⁷ Galway County Council (June 2022), Galway County Development Plan 2022-2028 (Page 279)

⁴⁸ Galway County Council (June 2022), Galway County Development Plan 2022-2028 - Appendix 1: Local Authority Renewable Energy Strategy (Page 38)

⁴⁹ Galway County Council (June 2022), Galway County Development Plan 2022-2028 - Appendix 1: Local Authority Renewable Energy Strategy (Page 38)

CDP Appendix 4: Landscape Character Assessment

- 4.4.9 The Site is identified in ‘Appendix 4 of the CDP 2022-2028: Landscape Character Assessment’ as part of the Kilcrow Basin Unit, which falls within the wider ‘Central Galway Complex Landscape’.
- 4.4.10 The character of the Kilcrow Basin is described as a ‘*working landscape, locally elevated. Larger areas of bog and forestry. Elevated concentrations of settlements and infrastructure*’⁵⁰.
- 4.4.11 In terms of landscape sensitivity, the area in which the Proposed Development is sited is designated as ‘Low’, which is defined as an area which is ‘*unlikely to be adversely affected by change*’⁵¹. This marks a reduction in the sensitivity of the surrounding landscape in comparison with the 2015-2021 CDP which identified it as ‘Class 2 – Moderate’.

⁵⁰ Galway County Council (June 2022), Galway County Development Plan 2022-2028 – Appendix 4: [Landscape Character Assessment \(Page 21\)](#)

⁵¹ Galway County Council (June 2022), Galway County Development Plan 2022-2028 – Appendix 4: [Landscape Character Assessment \(Page 22\)](#)

5.0 Environmental Impact Assessment

5.1 Need for EIAR

5.1.1 An EIAR is provided in accordance with the EU EIA Directive 2011/92/EU, as amended by EIA Directive 2014/52/EU and the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, in order to inform the consideration of the Application and provide the planning authority with the environmental information that must be taken into account when determining the Application.

5.2 Air Quality and Climate

5.2.1 A robust assessment of the likely air quality and emissions impacts of the proposed development has been undertaken in the EIAR and the findings are presented in EIAR Chapter 7. The air quality impacts from the operational traffic of the Proposed Development are not considered in Chapter 7 because road traffic is expected to be minimal. The headline findings are summarised below:

- The air quality assessment of construction impacts assumes that impact avoidance measures outlined within EIAR Volume I Chapter 7: Air Quality and Climate will be incorporated into the design of the Proposed Development, as they are standard good practice measures that are routinely applied across large construction sites. No specific additional mitigation has been identified as necessary for the construction phase of the Proposed Development. No significant effects have been identified.
- An air quality dispersion modelling assessment was carried out to evaluate the impact on local air quality of the operation of the Proposed Development. It concluded that there would be a small increase in ground-level concentrations of nitrogen dioxide (NO₂) and carbon monoxide (CO) and that operational concentrations of the modelled pollutants would be well within current Environmental Standards. Modelling of the cumulative impact of emissions from the Proposed Development, the existing CCGT Power Station and the Approved Development (Ref 21/2192) also showed that the combined impact on local pollutant concentrations would result in no significant effects.
- The Proposed Development will comply with the requirements of the European Union (Large Combustion Plants) Regulations 2012 S. I. No. 566 of 2012 under an Industrial Emissions (IE) Licence (which is to be applied for) so that any impacts of emissions to air, soil, surface and groundwater, and effects on the environment and human health, will be minimised and avoided where possible. Sampling and analysis of pollutants will be carried out where required including monitoring of exhaust emissions levels using Continuous Emission Monitoring Systems (CEMS) prior to discharge from the emissions stack, in accordance with the Industrial Emission (IE) Licence.

- The air quality assessment of impacts at the start of the Proposed Development's operations has assumed that the Emissions Limit Values (ELVs) will be met for the operational plant as required and in accordance with use of Best Available Techniques (BAT) under the EPA's environmental permitting regime. No specific additional mitigation has been identified as necessary for the operational phase of the Proposed Development. No significant effects have been identified.

Consistent with construction mitigation, it has been assumed that relevant best practice mitigation measures would be in place during any decommissioning works. No significant effects are anticipated.

- The Greenhouse Gases (GHGs) from constructing the Proposed Development are estimated to be 8,484tCO₂ (metric tonnes in carbon dioxide equivalent).
- The net GHGs (including all GHG avoidance deductions) from operating the Proposed Development over its (at least) 25-year life are estimated to be 9,203,94 tCO₂e.
- The Proposed Development will be operated as a peaking plant which is anticipated to operate for a limited number of hours per year. The Proposed Development would thus provide additional peak power generation capacity, which would contribute to providing a secure energy supply to the national grid. A key component of the ROI's decarbonisation strategy is to aim for up to 80% of its electricity supply to be generated from renewable sources by 2030, with no generation from peat and coal. To allow this uptake of renewable energy to happen it is necessary to have in place sources of energy generation that can be quickly dispatched to cover any imbalances in supply and demand. As the use of coal and peat for electricity generation is reduced, natural gas has been identified as a relatively lower-carbon option to provide security of supply.
- The Proposed Development can be defined as 'moderate adverse' effect. The plant will continue to operate beyond 2050 and therefore falls short of fully contributing to ROI's net zero trajectory. However, it is also acknowledged that whilst the ROI is moving towards decarbonising the grid, gas-fired peaking plant power stations are required as an important part of the overall transition fuel mix in order to ensure the ROI's energy security. The operational requirements of the Proposed Development will inevitably change during its design life and it will be subject to regular reviews to identify potential modifications and amendments to enable continued alignment with ROI climate goals.

5.3 Cultural Heritage and Archaeology

- 5.3.1 A robust assessment of the likely cultural heritage and archaeology impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 8. The headline findings are summarised below:

- There is one designated heritage asset within the 1km study area which is considered to be regionally important. Impacts to the thatched cottage (RPS 3648) would be of slight significance of effect would be short-term and adverse.
- Castletown Bridge (RPS 3651) is located on the LP4310 Road between the Site and the N65. There will be an increase in traffic using the N65 and LP4310 during construction including commuting site workers and vehicles transporting materials and equipment, however construction traffic will not pass directly over Castletown Bridge. Therefore, traffic noise and vibration as well as the physical presence of traffic will not impact to this asset.
- Significant effects for the operation of the Proposed Development derive from changes to the setting of heritage assets. These largely mirror the effects assessed for the permanent presence of the Proposed Development as detailed above in the assessment of the construction phase. There would be no change to the effects assessed for the designated assets within the wider study area due to the permanent presence of the Proposed Development during the operational phase. Additionally, the level of traffic associated with the construction phase will not be present during the operational phase also reducing impact. Given this, there is no need to reassess each designated heritage asset as the significance of effect will remain as determined for the Construction Phase.
- The distillate fuel will be delivered to the Site by road with vehicles passing the Protected Structures located on the LP4310 and N65. However, such trips will be infrequent and only as and when required. Given this, the settings of the Protected Structures will not be noticeably affected especially given the existing traffic on the roads. No operational impacts related to traffic, noise, dust, and vibration are therefore anticipated.
- Effects arising from the process of decommissioning of the Proposed Development are considered to be of a similar nature and duration to those arising from the construction process.

5.4 Biodiversity

5.4.1 A robust assessment of the likely biodiversity impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 9. The headline findings are summarised below:

- There are thirteen European sites within 15km of the Site, the closest of which is Slieve Aughty Mountains SPA, 6.1km south-west of the Site.
- A Habitats Regulations Assessment (HRA) Screening for Appropriate Assessment has been prepared by AECOM on behalf of the Applicant to inform the competent authority when determining whether the Proposed Development will have likely significant effects on any European sites, considering the Proposed Development alone and in-combination with other plans and projects. It concluded there will be no

likely significant effects to any European site as a result of the construction of the Proposed Development.

- Potential impacts to breeding birds during construction include habitat loss (i.e., removal of buildings) and injury or mortality. Likely potential impacts include disturbance and injury to adults and their eggs, young and nests, and could be significant at Local (higher) geographic scale in the absence of mitigation. 24 species of birds were observed within or adjacent to the site, including four species of conservation concern for breeding in Ireland displaying breeding behaviour, namely meadow pipit, goldcrest, greenfinch and willow warbler.
- During construction, there will potentially be an increase of lighting, noise, and visual disturbance. A temporary increase of such impacts during the breeding season could cause abandonment of territories or nests and is considered to constitute a significant effect. Subject to population-level impacts which are difficult to predict, duration of these likely impacts could last from being temporary (i.e., during construction phase) or permanent if breeding birds are lost from the Site.
- Common lizard is potentially present on Site but was not recorded incidentally during surveys. Impacts to lizard during the construction phase are minor habitat loss, and injury or mortality of hibernating lizards could be significant at Local (higher) geographic scale in the absence of mitigation.
- Two notable butterfly species, including Marsh fritillary, were recorded within the survey area to the west of the Site boundary. Potential impacts of the construction phase of the Proposed Development on these butterflies include loss of habitat and potential injury or mortality of larvae which may be present within the grassland. For marsh fritillary butterfly, construction impacts could be significant at County (medium) geographic scale in the absence of mitigation, but no operational phase impacts are predicted.
- A medium-sized breeding population of smooth newt was found in a small pond within the Site, approximately 50m north of the Proposed Development footprint. Construction of the Proposed Development may impact this nationally protected species through loss of terrestrial and breeding habitat, injury or mortality of breeding newts and hibernating newts in the grassland to be removed, and pollution of the waterbody (if retained) via contaminated surface run-off resulting in the potential loss of the site population. Impacts could be significant at the County geographic scale in the absence of mitigation.
- With the implementation of mitigation measures, residual impacts to protected mammals, breeding birds, smooth newt, lizard, and marsh fritillary are not significant.
- Air quality modelling has concluded that the Proposed Development will not give rise to significant adverse air quality effects on sensitive habitats or species within European sites.

- The Screening for Appropriate Assessment also concluded there will be no likely significant effects to any European site as a result of the construction of the Proposed Development, either alone or in combination with any other plans or projects.
- There are no operational phase impacts predicted that would impact breeding birds.
- Effects arising from the process of decommissioning of the Proposed Development are considered to be of a similar nature and duration to those arising from the construction process and therefore have not been considered separately.
- A Decommissioning Plan (including a DEMP) would be prepared and agreed with the relevant authority at that time. The DEMP will consider in detail all likely environmental risks on the Site and contain guidance on how risks can be removed or mitigated. Decommissioning activities will be conducted in accordance with the appropriate guidance and legislation at the time of the Proposed Development's closure.

5.5 Landscape and Visual Effects

5.5.1 A robust assessment of the likely landscape and visual impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 10. The headline findings are summarised below:

- At construction stage, landscape and visual effects will be temporary adverse and will result in:
 - Likely effects to landscape character or visual amenity within the locality or the wider study area as a result of the visibility of construction activities such as scaffolding, cranes, the movement of construction vehicles along local roads, and other tall equipment such as machinery on site;
 - Effects of temporary site infrastructure such as site traffic and temporary site construction compounds;
 - Likely direct effects arising from construction of the development will be confined to the Site.

5.5.2 The highest landscape and visual effects during the construction stage will be experienced within a radius of up to approximately 500m from the Site. Construction works will also be visible beyond the 5km study area, particularly to the north. While discernible, the construction effects in long distance views are not considered significant as they form part of a wide panoramic view in which they form one visible component of many.

- The operational phase landscape effects are summarised here:
 - The main landscape effects of the Proposed Development will be associated with the introduction of an air intake structure and emissions

stack, integrating with the established industrial character of the site and its surroundings. The Proposed Development will not change the existing prevailing industrial landscape character within the core and wider study area.

- Direct and long-term change (or modification) will occur locally where the Proposed Development will be physically located as a result of the introduction of plant on land currently occupied as a brownfield site associated with the existing CCGT Power Station.
 - Indirect change will occur outside of the Site boundary, where the Proposed Development has an influence on the perception of landscape character. The indirect change in landscape character is greatest within its immediate and close surroundings within an approximate 500m radius from the Site boundary where open and partial views are possible. Views from the south-west and east are largely screened by vegetation and landform. A significant bund associated with the former mine screens views from the south-western section of the study area. The Proposed Development will add to the industrial landscape character present in these views.
 - Indirect change and the significance of landscape effects will reduce with increasing distance from the Site beyond approximately 3km from the Site boundary and change from Moderate to Slight Adverse.
 - In summary, the landscape effects of the Proposed Development from within 500m of the Site boundary are considered to be Moderate Adverse, effects within 3km are considered to range from Slight to Moderate Adverse, and effects within 5km are considered to be Slight Adverse.
- The operational phase visual effects are summarised here:
 - The Proposed Development will be perceived to densify the industrial building complex at the existing CCGT Power Station Site. The Proposed Development will introduce another industrial feature to the skyline particularly when seen in conjunction with the existing CCGT Power Station and the approved OCGT (ref: ABP-313538-22), however, the existing CCGT Power Station with its 55m high emissions stack will remain the most prominent industrial feature.
 - The highest visual effects will be experienced within approximately 500m radius from locations with open or partial views of the proposed 40m high emissions stack and sections of the plant.
 - Views beyond approximately 500m will concentrate mainly on the upper sections of the emissions stack and air intake plant, which will be apparent but, as for the entire Proposed Development, it will be seen in conjunction with the existing already prominent CCGT Power Station structures including the existing 55m emissions stack as well as the approved OCGT (ref: ABP-313538-22).

- In long distance views (3km – 5km) effects will vary depending on the location of the observer and prevailing weather conditions. Within 3km of the Site, the Proposed Development will intensify and extend the perceived industrial character of the Site. Beyond 3km the Proposed Development will be barely distinguishable from the existing CCGT power Station and the approved OCGT (ref: ABP-313538-22).
- 5.5.3 In summary, the visual effects of the Proposed Development are considered to range from Moderate Adverse to Not Significant (refer to Table 10.13 EIAR Chapter 10, Volume I).
- 5.5.4 The temporary effects at decommissioning stage are of a similar nature and duration to those temporary effects arising from the construction process. The potential construction effects identified above are also representative of predicted decommissioning effects.

5.6 Noise and Vibrations

- 5.6.1 A robust assessment of the likely noise and vibration impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 11. The headline findings are summarised below:
- No significant adverse impact is expected at the residential receptor positions assessed with regard to construction phase sound levels generated by onsite activities.
 - A negligible impact is predicted on the N65 as a result of the change in road traffic noise during construction and a minor impact is predicted on LP4310 Gurtymadden to Tynagh Road.
 - No significant adverse impact is expected at residential receptor positions with regard to construction phase sound levels generated by additional traffic flows on existing roads.
 - Sound emissions from the Proposed Development would, without design mitigation, exceed the nominated criteria at all receptor locations. However, the predicted residual operational noise levels are below the relevant assessment criteria at all receptors and therefore considered acceptable. This will be achieved through procurement of appropriate plant and provision of acoustic barriers. The residual effects of noise emissions from the operation of the Proposed Development are assessed to be not significant.
 - Effects arising from the process of decommissioning of the Proposed Development are considered to be of a similar nature and duration to those arising from the construction process and therefore have not been considered separately in EIAR Volume I Chapter 11. Where this assessment refers to potential construction effects, these are also representative of predicted decommissioning effects.

5.7 Water Environment

5.7.1 A robust assessment of the likely impacts on the water environment has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 12. The headline findings are summarised below:

- Surface water and sediment within the area have been impacted by the site's historic use for mining. The status of the river sub-basin has been assessed under the WFD 2016-2021 as 'Poor'. Given the 'Poor' quality assigned to the sub-basin and the known impact on local surface waters from historical contamination, the sensitivity of the surface water environment to contamination is considered to be medium. Based on the groundwater vulnerability, its sensitivity is considered to be high.
- During construction, fuel, hydraulic fluids, solvents, grouts, paints and detergents and other potentially polluting substances will be stored and/ or used on the Site. There may also be substantial volumes of stagnant water or other liquid/ chemical substances within the existing drainage network and other redundant process infrastructure on the Site. Leaks and spillages of the aforementioned substances (the source in the source-pathway-receptor approach) would pollute the nearby surface watercourses if their use or removal is not carefully controlled and if spillages enter the existing drainage network or waterbodies directly (the pathway in the source-pathway-receptor approach).
- With mitigation measures outlined in place, the magnitude of impact to groundwater quality through the mobilisation of existing contaminants in soil and the migration of introduced contaminants in soil as a result of spillages into groundwater receptors is likely to be negligible. This would result in an imperceptible effect on a high sensitivity receptor.
- There are no direct works to watercourses required for the Proposed Development such as new culverts or structures. The surface water drainage network will use an existing outfall to the former open pit mine. As such, there is no impact on the hydromorphology of watercourses during construction.
- The construction phase of the Proposed Development would not involve works in a fluvial flood plain.
- The Site would in general be at a low risk from surface water flooding. During the works, existing surface flow paths may be disrupted and altered due to site clearance, earthworks, and excavation work. The exposure and compaction of bare ground and the construction of impermeable surfaces would alter the rates and volume of runoff and increase the risk from surface water flooding. However, with the implementation of standard construction methods and mitigation measures, this risk will be effectively minimised. As such, the magnitude of flooding impact from these sources during construction is considered to be negligible, resulting in an imperceptible effect.
- Any excavations on the Site have the likelihood to liberate groundwater in some areas. With the implementation of the measures outlined in the oCEMP this risk

will be effectively minimised, giving a negligible magnitude of impact, resulting in an imperceptible effect.

- During operation, the proposed surface water drainage system for the Proposed Development will tie into the existing on-site water treatment plant, which outfalls to the former open pit mine under the conditions set out in the existing Tynagh Power Station IE Licence.
- Given that the Drainage Strategy will have to meet standards required by the IE Licence and policy requirements, and that measures will be in place for dealing with spillages and firewater then a negligible impact is predicted to surface water receptors from surface water drainage. Given that this is a high sensitivity receptor, this would result in an imperceptible effect. Through implementation of the mitigation measures the impact magnitude of spillages in soil migrating into groundwater receptors is negligible. This would give an imperceptible effect for the aquifer.
- The Flood Risk Assessment (Appendix 12A, EIAR Volume II) concluded the Proposed Development is not at risk from fluvial flooding and is at a very low risk from groundwater flooding.
- Surface water runoff will be discharged at the greenfield runoff rate to the former enclosed mine lagoon under conditions of an IE Licence. As such, there will be negligible impact on surface water flooding.
- The Proposed Development will not lead to an increase in staff and therefore there will be no additional foul water generated (either from sanitation or process water) and as a result there will be no requirement for increased foul water management at the site over and above existing facilities. However to ensure longevity in performance, the existing Tynagh Power Station Klargester BioDisc wastewater treatment system (which has been in use for circa 15 years) will be replaced with a Klargester Bioficient 5 system which is suitable to cater for the daily allowance. The proposed Bioficient system is of comparable size to the existing system and will operate effectively in conjunction with the existing percolation area which has been assessed in the EIAR.
- Based on the above it is concluded that the operational Proposed Development is not at risk from any external sources of flooding and nor do the proposals cause an increase in upstream or downstream flood risk. As such the flood risk during operation is imperceptible.
- A Decommissioning Plan will be produced and agreed with the EPA as part of the Environmental Permitting and site surrender process.

5.8 Soils and Geology

- 5.8.1 A robust assessment of the likely soils and geology impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 13. The headline findings are summarised below:

- No impact to or removal of agricultural land or soil resources is envisaged and all works are on unvegetated Made Ground. During construction, given the implementation of the mitigation measures as described in EIAR Volume I Chapters 12 and 13 (plus the CEMP) and that there are no direct works to watercourses, the impact magnitude of existing or introduced contaminants in the subsurface migrating into surface water receptors would be negligible on Lough Derg and/ or the River Shannon and the Lisduff (Kilcrow) river (Poor quality) or its tributaries (Poor quality). This would give a negligible effect for all of the waterbodies. As a medium importance receptor, this would give an imperceptible effect.
- For groundwater impacts, with the embedded mitigation measures outlined in EIAR Volume I Chapters 12 and 13, including implementation of the CEMP, the magnitude of impact to groundwater is likely to be negligible. This would result in an Imperceptible effect on a high sensitivity receptor (Bedrock Aquifer).
- The impact magnitude on construction workers (high importance), off-site residential receptors (very high importance) and off-site urban/ industrial land users (medium importance) is likely to be negligible due to the lack of extensive excavations, with no further requirements for control measures, including the CEMP, reducing risks to human health/ make land suitable for intended use.
- The earthwork stage of the Proposed Development will not require significant excavation. There will be a fill requirement (21,000m³) for the Site of the Proposed Development, however this material will be imported. The engineering requirements result in no export of soils or material from Site.
- During operation, the Proposed Development will not result in a loss of agricultural land or change in land use classification. However, there is a possibility that contaminants could be introduced to the subsurface and soil resources as a result of accidental leakages from fuel storage areas. This would result in a small adverse impact, resulting in a small adverse effect on Urban grade land. These effects are considered to be Imperceptible.
- The impact magnitude of existing or introduced contaminants in the subsurface migrating into surface water receptors would be negligible. Overall, this gives a slight adverse effect. These effects are considered to be Imperceptible and therefore no additional mitigation is required, over and above that set in EIAR Volume I Chapters 12 and 13.
- The impact magnitude of spillages in soil migrating into groundwater receptors is negligible, with a very low risk of pollution leakages. This would give a small adverse effect for the superficial deposits and Limestone bedrock aquifers. These effects are considered to be Imperceptible and therefore no additional mitigation is required, over and above that set out in Chapters 12 and 13.

- Given the restricted nature of the decommissioning works in comparison to construction, as well as the prior uses of the site to any decommissioning, a Decommissioning Plan will be produced and agreed with the EPA as part of the Licencing and licence surrender process. An environmental Baseline Assessment report at the time of commencement of operations will be referred to and updated to determine if any additional contamination has occurred and what, if any, rehabilitation is required prior to IE Licence surrender.

5.9 Traffic

5.9.1 A robust assessment of the likely traffic impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 14. The headline findings of the assessment are summarised below:

- All HGVs will be directed to only use the section of LP4310 Tynagh Road north of the Site to travel to/ from the Site. This is the shortest and most efficient connection to the N65 and the wider National Road Network. Staff will also be encouraged to travel in this direction. It is proposed that this haulage route restriction (travelling north on LP4310) will be a requirement within the Construction Traffic Management Plan (CTMP).
- The construction phase of the development is 18-24 months in duration. Peak HGV traffic is expected during Months 1-3. During these months, a maximum of 39 HGVS will arrive to the site each day (78 two-way trips).
- Staff trips have been calculated based on a car occupancy rate of 1.5. Therefore, 200 staff equates to 133 vehicles (or 266 LGV two-way trips).
- A link capacity assessment verified that LP4310 Tynagh Road will continue to operate with ample spare capacity even in a worst-case scenario where all staff and HGV traffic is on the network during peak periods.
- All links assessed were also able to run within capacity even in situations where existing traffic, development traffic and outage traffic associated with the existing Tynagh CCGT Power Station were on the network.
- The peak hour traffic impact and daily traffic impact on the site access junction on LP4310 Tynagh Road will exceed the 10% threshold. This threshold is only minorly exceeded and is likely to be due to the low background traffic flows. It should also be reminded that the 12 trips assessed were doubled to allow for a robust assessment. In reality, if HGVs were to arrive uniformly throughout the day, the percentage impacts would be halved.
- It should also be noted that this traffic impact is temporary, i.e., HGV peak for 12 weeks. It is therefore considered that this impact is not of concern and will not have a detrimental effect on the road network.

- Additionally, it is also considered that the existing Tynagh CCGT Power Station will experience outages during the construction phase of the Proposed Development. During these outages, approximately 180 no. staff will be arriving to the site (120 no. vehicles based on 1.5 car occupancy).
- Due to the high traffic impact, a pavement (road surface) assessment has been completed on the LP4310 Tynagh Road to identify the current state of the local road network. The overall impact on road pavements and below ground infrastructure on the N65 (National Network Road) from construction vehicles associated with the Proposed Development, in comparison with current traffic, is considered negligible.
- Three abnormal loads are expected to arrive to the Site during the construction phase. These are expected to travel from either Dublin or Shannon Foynes Port to the Site. The abnormal loads route along the LP4310 Tynagh Road and into the existing site has already been auto-tracked for a previous application in 2003 (reference 042193) for the Tynagh CCGT Power Station facility. Once appointed, the E&C Contractor will be required to provide a detailed report on these routes and inform the relevant authorities before travel. While the Applicant is unable to implement Approved Development Ref: 21/2192, it is assumed in this EIAR that the construction phase of the Approved Development Ref:21/2192 could (although unlikely) be before or after the construction of the Proposed Development (i.e. not concurrent and the peak periods would not overlap). In the event of an overlap of 3 months the total daily traffic assessed (and considered acceptable) within the EIAR Chapter 14: Traffic chapter is higher than the cumulative traffic during the overlap and, therefore, the trips during the potential overlap period do not need to be assessed separately. The results of showed that the traffic remains within road capacity and therefore no significant cumulative impact is expected.
- The operational phase impact of the development has been determined to be negligible due to the small daily traffic flow generation (5 -10 daily arrivals). This generation is expected to be LGVs and is not believed to have any major impact on the local road network.
- During the operational stage, the gas generation plant will fire primarily natural gas to generate power. Natural gas is currently piped to the Site (through an existing pipe) and there will be no vehicle movements associated with the Proposed Development in this respect.
- During emergency scenarios (when operating with distillate fuel) up to 60 No. HGV vehicles could arrive to the Site over a day. However, these are not expected to be a frequent or regular occurrence and generate fewer daily trips than were assessed for the construction phase. Therefore, no further assessment has been undertaken.

- Operation using back up fuel is only expected to occur during an emergency scenario and during compliance tests. Therefore, it is not expected that the delivery of back up fuel would be frequent. An emergency scenario has never occurred at the existing CCGT Power Station site and back-up fuel has only been required for testing purposes.
- Routine maintenance operations will be scheduled to take place during the daytime (delivery) hours and will only extend into the night-time and/ or weekends should this prove necessary to maintaining the continuity of the process during emergency situations. Any non-routine maintenance and repair operations will be undertaken as and when they arise.
- All operational trips will access the Site via the existing access with adequate parking provision available on Site to accommodate the staff vehicles.
- Effects arising from the process of decommissioning of the Proposed Development are considered to be of a similar nature and duration to those arising from the construction process and therefore decommissioning has not been considered.

5.10 Land Use

5.10.1 A robust assessment of the likely land use impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 15. The headline findings are summarised below:

- The Landscape Character Type (LCT) in which the Site lies is the Central Galway Complex, within an area classified as having Low Landscape Sensitivity, thus being unlikely to be adversely affected by change.
- The Proposed Development will be located to the north of the existing CCGT Power Station which has been operational since 2006 and is regulated as a Lower Tier COMAH/Seveso Installation. The impact will be neutral during construction.
- It is determined that there will be no direct or indirect impact to residential land uses during the construction period. There are no private residential land uses due for demolition or due to be vested as a result of the Proposed Development.
- The existing businesses located within proximity to the Site will not be directly impacted by the construction phase. Sperrin Galvanisers Ltd is the only business within 500m from the Site. The sensitivity of the area can be considered “low” both for dust soiling impacts and for human health impacts from PM10 releases from all activities, on account of the distance from the activity source to the receptors, and the existing low background concentration particulates (<24µg/m³). The magnitude of impact during construction is unchanged (no impact) resulting in a Neutral significance of impact. There will be no indirect impact to industry and business development land during construction.

- During the construction period of the Proposed Development, there will be no direct or indirect impact on the permitted planning application by Sperrin Galvanisers Ltd (Reference Number: 19633).
- There are no residential land use areas directly or indirectly impacted by the operational phase of the Proposed Development.
- The existing businesses located within proximity to the Site will remain unaffected directly and indirectly by the operational phase of the Proposed Development.
- There are no lands zoned for industry or business which are directly impacted by the Site. There will be no indirect impacts to industry and business development land. The magnitude of impact during operation is unchanged (no impact) resulting in Neutral significance of impact.
- No other planning applications (received or approved within the last five years) will be impacted directly or indirectly within the operational phase.
- The relevant best practice mitigation measures will be in place during any decommissioning and demolition works, and the surrounding environment and receptors at the time of decommissioning. The decommissioning works will be similar in impacts to the construction phase and have been assessed accordingly. The Significance of impact is Neutral or Slight Adverse.

5.11 Population and Human Health

5.11.1 A robust assessment of the likely population and human health traffic impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 16. EIAR Chapter 16 identifies the potential population and human health impacts with reference to EIAR Chapter 7: Air Quality and Climate, Chapter 11: Noise and Vibration, Chapter 12: Water Environment and Chapter 13: Soils and Geology. The headline findings are summarised below:

Air Quality

- The risk impact from dust and particulates upon human receptors during construction has been classed as Low for the following activities: demolition; earthworks; construction; and track-out. This is due to the distance from the activity source to the receptors, and the existing low background concentration of particulates.
- For operational impacts, the impact upon human receptors from NO₂ or CO from the Proposed Development emissions has been assessed. The impacts have been identified as Negligible due to not exceeding any Air Quality Standards.

Noise and Vibration

- The impacts on residential (human) receptors from construction noise and vibration are assessed to be Negligible due to the Predicted Construction Sound Pressure Level being below the assessment criteria. Impacts on human health from the Construction Phase Traffic on the LP4310 Gurty Madden to Tynagh Road have been found to be Minor due to a 1.5dB increase in noise from road traffic. The N65 would experience a Negligible impact due to it only having a 0.3dB increase.
- Mitigation has therefore been incorporated into the design so that no significant adverse impact is expected at residential receptor positions with regards to operational phase sound levels.

Water Environment

- No direct construction adverse impacts to human health were identified in EIAR Volume I Chapter 12: Water Environment. Without mitigation during construction, adverse impacts could exist such as: spillages; contaminated and sediment laden site runoff; groundwater flooding; and changes to overland flow. However, the oCEMP details mitigation measures which will be employed before, during and after works. These measures include spill kits, installation of drainage system (which will include oil interceptors), and monitoring of surface water features.
- Adverse impacts that could indirectly impact human health during the operational phase were identified, in particular, contamination of ground water (through sub-surface contaminant migration), surface water from spills and flooding due to a change in impermeable surfaces. However, with the implementation of standard construction methods and mitigation measures, this risk will be effectively minimised.

Soils and Geology

- In terms of adverse human health construction impacts related to soils and geology, temporary impacts could exist for off-site receptors, such as urban/ industrial land users, residents, and construction workers, through the inhalation of contaminated dust and dermal contact with contaminated soil following ground disturbance.
- Adverse operational impacts relating to contamination of groundwater which could indirectly impact human receptors has been identified in EIAR Volume I Chapter 12: Water Environment. These would only occur in the event that standard construction practices were not adhered to or if mitigation was not implemented.

Employment

- With regard to the construction phase, levels of employment will vary throughout the construction period. Local businesses will also benefit from the opportunity to supply materials and plant and equipment during the construction phase which will represent a significant capital investment. The impact would therefore likely be Moderate Beneficial during construction.

Population

- The Proposed Development would have a Negligible impact upon the regional population of Galway during construction. However, a temporary increase in the number of workers during construction phase (potentially up to 200 at peak time) may require employees to stay in the local area. It is not expected this would have adverse impact, rather it may have a beneficial impact in terms of goods and services providers.
- Once operational, the Proposed Development would not have an impact upon the local or regional population. Due to a projected increase in population, the Proposed Development would likely bring beneficial impacts in terms of a reliable power supply during periods of high demand in the future. This is pertinent due to the Regional Spatial and Economic Strategy Plan for compact growth in urbanised areas of Galway and the wider towns in the Northern and Western Regional Area.

5.12 Material Assets

5.12.1 A robust assessment of the likely traffic impacts has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 17. The headline findings are summarised below:

- The estimates of waste generated for the Proposed Development during construction demonstrate that the estimated tonnage produced for the Proposed Development would be Negligible (Not Significant).
- Based on the topographical data of the existing Site and the Proposed Development layout and floor levels it is calculated that the site clearance and levelling of the site layout will require a fill importation requirement of 21,000m³. The volume of excavation and cut on the brownfield site will be limited and it is proposed to export any excavated material off site.
- In terms of significance, there will be a low sensitivity associated with these material assets. The magnitude of impact will be 'no change' as there will be no measurable change in utilities required. As a result, for this material asset, the significance of impact without mitigation will be Neutral.
- During operation, the Proposed Development is required under the Grid Code to maintain a secondary fuel supply of approximately 5,400 tonnes (6,600m³) of distillate fuel which will be contained in a tank within a bunded area. The purpose of this secondary fuel is to ensure that power can still be supplied to the electricity network in the event of an interruption to supply from the gas connection. The secondary fuel will only be used in the unlikely event that both the gas connection is unavailable and the other generation on the transmission grid cannot meet demand.

- A fuel treatment system will be included to remove any contaminants from the secondary fuel that may accumulate during storage, which will be collected in a tank contained within the bunded area prior to its safe disposal. The tank would be emptied, when necessary, approximately twice per annum.
- A fuel forwarding pump will forward the secondary fuel from the storage area to the plant when required. The safe disposal of contaminants from the secondary fuel supply will not be significant in terms of amount or frequency. As a result, and in line with the stated methodology presented in Chapter 17 this would represent a Negligible impact (no waste arisings) and thus is considered not significant.
- In terms of other waste used as part of the operation and running of the Proposed Development, small quantities of other chemicals (i.e., lubrication oils, propane, CO₂, cleaning agents and glycol/ antifreeze) will also be delivered to and from the Proposed Development. They are expected to be low and thus not considered significant.
- In a worst-case scenario for a development of this type, the consumable wastes produced are considered Negligible when compared to the methodology outlined in Chapter 17. This is due to the fact that chemicals and effluents will increase in amount by less than 0.1% of current annual waste arisings in the region.
- Effects arising from the process of decommissioning of the Proposed Development are considered to be of a similar nature and duration to those arising from the construction process and therefore have not been considered separately in this chapter. The majority of materials produced during decommissioning are likely to be concrete and steel, which are both likely to be recycled rather than disposed of.

5.13 Major Accidents and Disasters

5.13.1 A robust assessment of major accidents and disasters risk has been undertaken in the EIAR and the findings are presented in the EIAR Chapter 18. The headline findings are summarised below:

- The assessment of major accidents and disasters has concluded that a loss of containment of dangerous substances and subsequent fire and/ or explosion is the most credible potential accident which could occur at the Proposed Development.
- Small quantities of these substances may be present during construction and their use will be controlled by the contractors' health, safety, and environmental management procedures.

- The likelihood of a loss of containment of natural gas or distillate fuel which results in a fire and/ or explosion is low, however the consequences of such an event can be significant.
- Fires and explosions can cause significant harm to people and the environment as a result of the direct effects of thermal radiation and overpressure, plumes containing harmful materials and firewater runoff containing distillate fuel and products of combustion. The Proposed Development will therefore be developed with installed safety systems to prevent a loss of containment and subsequent fire and/ or explosion including:
 - The design and construction of process equipment, structural assets and pipework systems to internationally recognised engineering standards and best practice;
 - Use of welded pipework to minimise joints, installation of flange guards and routing pipework sections below ground to minimise the risk of accidental damage;
 - Introduction of a planned, preventative maintenance and asset inspection regime to minimise the potential for failures and defects; and
 - Site surfacing will be impervious in all areas where distillate fuel could be present and routed to process drainage systems where oil can be contained and removed should a release occur. Where distillate fuel pipes are routed underground, containment systems with leak detection are standard industrial practice. However, below ground sections should be avoided and minimised wherever practicable.
- The inventory of substances including natural gas and distillate fuel present within equipment and pipework will be safely isolated and removed prior to dismantling and decommissioning.
- The potential impact of natural disasters including climate change effects, such as rising temperatures, storms and flooding, has been considered with an assessment that the overall residual risk from these events causing a major accident as neutral or slight.

5.13.2 In addition to Chapter 18 of the EIAR a COMAH land use planning assessment of the Proposed Development has been prepared by Byrne Ó Cléirigh. The purpose of the assessment is to examine the development in the context of the Health and Safety Authority's COMAH land use planning guidance. The report concludes that the Proposed Development would satisfy the risk-based criteria that are set out in the HSA's land use planning guidance.

5.14 Appropriate Assessment

5.14.1 As noted above, a Habitats Regulations Assessment (HRA) Screening for Appropriate Assessment has been prepared on behalf of the Applicant to inform the competent authority when determining whether the Proposed Development will have likely significant effects on any European sites, considering the Proposed Development

alone and in-combination other plans and projects (refer to Appendix 9D, EIAR Volume II).

- 5.14.2 The need for an Appropriate Assessment can only be excluded if, on the basis of objective scientific information and in light of the conservation objectives of relevant sites, the Proposed Development, either individually or in-combination with other plans or projects, could not have likely significant effects on any European site.
- 5.14.3 The submitted Screening Report finds that no significant effects are likely to any European site, either alone or in-combination with other plans and projects. No source-pathway-receptor links have been identified to any of the qualifying interests of the European sites in the vicinity or mobile qualifying interests from sites further afield.
- 5.14.4 Accordingly, the submitted Screening Report concludes, in view of best scientific knowledge and on the basis of objective information, that the Proposed Development, whether individually or in-combination, beyond reasonable scientific doubt is not likely to have significant effects on any European site, and therefore that there is no requirement to proceed to the next step of Appropriate Assessment.

5.15 Cumulative Effects

- 5.15.1 Other proposed developments that are also likely to be constructed and operated in the future, and that have the likelihood to generate cumulative environmental effects together with the Proposed Development, have been identified and are presented within the EIAR.
- 5.15.2 The likelihood for cumulative effects with these other developments has been considered for all of the environmental topics by a review of the available information (including the submitted EIAR and any detailed environmental modelling information where available). Through the consideration of the information available (at the time of assessment), it is concluded that there is no potential for any significant residual cumulative effects.
- 5.15.3 All other assessment topics have concluded that there is no likelihood for significant cumulative effects to arise as a result of the construction or operational phases of the Proposed Development when considered alongside the other identified developments.

5.16 Summary of Environmental Effects

- 5.16.1 Table 6.1 of the EIAR Non-Technical Summary provides a summary of residual environmental effects arising from the Proposed Development. This is copied below for ease of reference.

ENVIRONMENTAL TOPIC	RESIDUAL EFFECT
Air Quality and Climate	No significant effects identified for Air Quality. Moderate Adverse effects associated with GHG emissions during construction and operation phases (refer to Section 5.3 of NTS)
Cultural Heritage	No significant effects identified.
Biodiversity	No significant effects identified.
Landscape and Visual	Landscape effects will range from Slight to Moderate Adverse. Visual effects will range from Slight to Moderate Adverse.
Noise and Vibration	No significant effects identified.
Water and Environment	No significant effects identified.
Soils and Geology	No significant effects identified.
Traffic	Minor Adverse impacts associated with HGV construction traffic during construction phase. No significant effects identified during operational phase.
Land Use	No significant effects identified.
Population and Human Health	No significant effects identified.
Material Assets	No significant effects identified.
Major Accidents and Disasters	No significant effects identified.

5.17 Mitigation Measures

5.17.1 As described throughout each of the EIAR chapters, there are instances where the environmental effects associated with the Proposed Development may be of a magnitude as to warrant mitigation measures. These measures are deemed necessary to minimise environmental impacts during the operation, construction and/ or maintenance phases of the Proposed Development. A single Schedule of Environmental Commitments is included within the EIAR (**Table 20.3**) which provides a collective summary of the mitigation measures for the Proposed Development.

6.0 Planning Assessment

6.1 Compliance with National policy

Project Ireland 2040 – National Planning Framework

- 6.1.1 The Proposed Development will support the transition towards low carbon energy supply and increased renewable generation in line with the aims of the NPF. The proposed OCGT peaking plant will complement intermittent renewable sources of power (such as wind) by rapidly generating power for short periods of time when there is insufficient capacity to meet demand.
- 6.1.2 The Proposed Development will help to reinforce the transmission network to facilitate growth of a more renewables focused energy supply, as envisaged in NPF National Strategic Outcome 8 (Transition to Sustainable Energy)
- 6.1.3 The Proposed Development will provide resilience to Ireland’s electricity grid and improve security of supply. In this respect it is in keeping with the key ‘security of supply’ principle for Energy Policy that is outlined in the NPF.
- 6.1.4 Furthermore, in accordance with Policy Objective 54 of the NPF, the Proposed Development will support national targets for climate policy mitigation objectives. By supporting renewable energy generation, the Proposed Development will contribute to the Climate Action Plan’s aim for at least 80% of electricity supply to be generated from renewables by 2030 in Ireland.
- 6.1.5 The Proposed Development will also support the transition to a low carbon economy as envisaged in ‘The Energy Vision 2050’ White Paper by helping to replace the generation capacity of older power stations which use carbon-intensive fuels such as peat and coal. The proposed OCGT peaking plant will run on lower carbon natural gas⁵².
- 6.1.6 Finally, the Proposed Development is consistent with National Policy Objective 52 of the NPF, which seeks to ensure that development occurs within environmental limits, having regard to the requirements of all relevant environmental legislation. The comprehensive EIAR submitted with the planning application demonstrates that the Proposed Development will have no significant residual effects on the environment as identified in Section 5 of this Statement.

National Development Plan 2018-2027

- 6.1.7 The Proposed Development will contribute to the creation of a long-term, sustainable and competitive energy sector in Ireland in accordance with the overarching aim of the NDP for the energy sector.
- 6.1.8 The NDP recognises that the target of delivering up to 80% of Ireland’s electricity from renewable sources by 2030 will require investment in renewable electricity

⁵² Except in the event of emergency scenarios when back up distillate fuel may need to be used

generation and storage as well as conventional electricity generation capacity to support the operation of variable renewable technologies.

- 6.1.9 As a responsive gas-fired power generator, the Proposed Development supports Strategic Investment Priority no. 4, to deliver circa 2 GW of new conventional (mainly gas-fired) electricity generation capacity by 2030 to support the operation of a predominantly wind and solar electricity system and provide security of supply.

Policy Statement on Security of Electricity Supply (2021)

- 6.1.10 The Proposed Development will contribute to a national priority and support the continued security of electricity supply at a national level.
- 6.1.11 The Proposed Development provides quick response electricity generation capability which will help to maintain security of supply while supporting Ireland in its transition to a low carbon economy in line with the Government’s Policy Statement.

Climate Action Plan

- 6.1.12 The Proposed Development will contribute to realising the need for “*rapid delivery of flexible gas generation*”, “*at scale and in a timeframe to replace emissions from coal and oil generation before the second budget period*”, which is highlighted in the latest Climate Action Plan (CAP23).
- 6.1.13 It will assist in meeting one of the key measures for the energy sector that is included in the Plan, i.e. the delivery of at least 2GW of new flexible gas-fired generation.

The Eirgrid/SONI Ireland Capacity Outlook 2022 - 2031

- 6.1.14 The Proposed Development will help to address the predicted capacity deficits during the years up to 2031 and will be part of a balanced portfolio of new capacity. It will assist in achieving the requirement, identified in the latest Capacity Outlook, for “over 2000MW of enduring flexible gas-fired generation capacity” to be delivered by 2030⁵³.

6.2 Compliance with regional policy

Regional Spatial and Economic Strategy

- 6.2.1 The Proposed Development will both directly and indirectly support the growth and resilience of the Region. It will provide greater resilience to Ireland’s electricity grid and thus will indirectly support the wider economic growth ambitions of the Region which rely on secure energy supply.

⁵³ Eirgrid/SONI (2022), Ireland Capacity Outlook 2022 – 2031 (Page 6)

- 6.2.2 The Proposed Development will strengthen the grid for all electricity users, and in doing so will improve the security and quality of supply. The RSES notes that improving security of supply is particularly important if the Region is to attract high technology industries that depend on a reliable, high quality electricity supply.
- 6.2.3 The Proposed Development supports the ambition outlined in the RSES to develop the grid in the Region to enable the transmission system to safely accommodate more diverse power flows from renewable generation and to facilitate future growth in electricity demand.
- 6.2.4 The proposal is also in keeping with RPO 8.1 which supports the development of a safe, secure and reliable electricity network and the transition towards a low carbon economy centred on energy efficiency. As outlined above, the Proposed Development will facilitate the transition towards a low carbon energy sector by supporting an increasing amount of renewable generation sources and replacing older, more carbon intensive power plants.
- 6.2.5 The proposal is also in compliance with RPO 8.4 which supports the development of new electricity transmission infrastructure to ensure that future energy needs can be delivered in a sustainable manner and that capacity is available at local and regional scale to meet future needs. The Proposed Development would make greater use of existing electricity transmission infrastructure, increasing the amount of electricity exported to the grid.

6.3 Compliance with local policy

Galway County Council – County Development Plan 2022-2028

Chapter 7 Infrastructure, Utilities and Environmental Protection

- 6.3.1 The Proposed Development would contribute to the achievement of the overarching aim of Chapter 7 of the CDP, i.e.:

To support and encourage investment and improvement in utilities, water, wastewater, electricity and gas infrastructure and support the development and enhancement of digital infrastructure.

- 6.3.2 It will also contribute to meeting the following objective of the CDP specific to the development of new generation capacity:

- *EG3: Support and liaise with statutory and other energy providers in relation to power generation, in order to ensure adequate power capacity for the existing and future needs of the County.*

- 6.3.2 The proposal would help deliver high quality electricity generation infrastructure in a sustainable manner, which is of critical importance to the future development of the county.

Chapter 14 Climate Change, Energy and Renewable Energy

- 6.3.3 The proposed development would support renewable generation technologies, enhance the security of supply and diversify sources of supply.
- 6.3.4 The Proposed Development complies with Strategic Aims of Chapter 14 of the CDP, which support International, National and County initiatives for limiting emissions of greenhouse gases through the development of renewable energy sources where such development does not have a negative impact on the surrounding environment. In this regard, the Proposed Development will contribute towards the national objective to achieve 80% renewable electricity by 2030, and the submitted EIAR demonstrates that the Proposed Development will have no significant residual effects on the environment, as identified in Section 5 of this Statement.
- 6.3.5 The Proposed Development contributes to the expansion of gas-fired generation capacity, taking of the existing gas infrastructure pipelines that serves the site, in accordance with the aims of Policy EG3 of the CDP (*'To facilitate the delivery and expansion of the Natural Gas and Synthetic Gas infrastructure for storage, transmission and energy generation throughout the County for both domestic and business/industry use and to have regard to the location of existing gas infrastructure pipeline in the assessment of planning applications'*).
- 6.3.6 The Proposed Development also very clearly accords with Policy EG1 of ch. 14, *'To support the development of the gas network and associated generating capacity in order to sustainably support and augment renewable electrical energy generated County Galway'*.

6.4 Development Benefits

- 6.4.1 The Proposed Development is urgently needed to provide resilience to Ireland's electricity grid and address forecast electricity capacity shortfalls. The proposed OCGT plant will support the increased roll out of renewable generation technologies and replace generating capacity lost through the planned retirement of more carbon intensive conventional power stations. It will provide a range of benefits, including:
- 350MW additional generation capacity to meet increasing electricity demand and address forecast capacity shortfalls;
 - A new source of backup power to complement renewable generation technologies and strengthen the electricity grid in the Galway area;
 - Support the Country in its transition to a renewable-based generation system and towards achieving net-zero emissions by 2050;

- Significant private sector capital investment in the regional economy;
- Up to 200 construction jobs as well as supply chain opportunities for local businesses;
- Efficient use of vacant land adjoining an existing Power Station, benefitting from existing supply and transmission infrastructure; and
- Supports economic development objectives which rely on secure energy supply.

6.5 Assessment Conclusions

- 6.5.1 The policy assessment undertaken demonstrates that the Proposed Development will be consistent with and contribute towards the achievement of proper planning and the sustainable development of the area in which it is located.
- 6.5.2 The Proposed Development will contribute to the achievement of national targets as outlined in the National Development Plan and Climate Action Plan to increase the share of renewable energy generation to 80% and to deliver circa 2 GW of new conventional (mainly gas fired) generation capacity by 2030. It will help to facilitate the transition to a low-carbon economy by supporting the transition to a more diverse renewable-based power generation system. The reserve power provided by the proposed OCGT will support intermittent renewable generation technologies while improving the security of electricity supply. It will provide a wide range of other benefits, notably addressing electricity capacity shortfalls forecast by EirGrid while making greater use of existing gas and electricity supply and transmission infrastructure.

7.0 Conclusion

- 7.1 This application seeks permission for a new 350 MW OCGT plant and associated infrastructure on land to the north of Tynagh Power Station, Derryfrench, Tynagh, Loughrea, Co. Galway. The Proposed OCGT will be primarily fuelled by natural gas and will operate as a 'peaking plant'. The OCGT will be capable of starting up rapidly to provide backup power generation when there is a gap between renewable power generation and demand. It will help to facilitate the continued expansion of Ireland's renewable generation capacity while enhancing security of supply.
- 7.2 The Site of the Proposed Development benefits from its adjacency to existing electricity and gas supply and transmission infrastructure serving the existing Tynagh CCGT Power Station. The Proposed Development will make greater use of this existing infrastructure within an existing Power Station environment. As such, the Site is ideally suited to this form of development.
- 7.3 The need for the Proposed Development is clearly established, as detailed in Section 3 of this Statement. The National Development Plan (2021-2030) (NDP) is clear that maintaining security of energy supply is a key national priority for the coming decade and beyond. This has been further underlined by the Government's 'Policy Statement on Security of Electricity Supply', published in November 2021, and Eirgrid's 'Ireland Capacity Outlook 2022 – 2031', published in October 2022. The latest Climate Action Plan ('CAP23') also emphasises the need for urgent delivery of new gas-fired generation capacity. The Proposed Development will contribute to meeting the increasingly urgent requirement for new flexible gas-fired generation to be delivered rapidly and at scale.
- 7.4 The Proposed Development has been subject to a comprehensive EIA and the headline findings of the EIAR are summarised in Section 5 of this Statement. It would have limited Environmental Impact as evidenced in the EIAR, which concludes that the Proposed Development will have no significant residual effects on the environment, with the exception of slight to moderate landscape and visual effects.
- 7.5 The Proposed Development will provide a range of benefits, including:
- 350MW additional generation capacity to meet increasing electricity demand and address forecast capacity shortfalls;
 - A new source of backup power to complement renewable generation technologies and strengthen the electricity grid in the Galway area;
 - Support the Country in its transition to a renewable-based generation system and towards achieving net-zero emissions by 2050;
 - Significant private sector capital investment in the regional economy;
 - Up to 200 construction jobs as well as supply chain opportunities for local businesses;

- Efficient use of vacant land adjoining an existing Power Station, benefitting from existing supply and transmission infrastructure; and
- Supports economic development objectives which rely on secure energy supply.

7.6 Considering the urgent need for the Proposed Development, its significant benefits, its compliance with planning policy and its limited environmental impact, it is respectfully requested that planning permission is granted for this much needed development without delay.