An Bord Pleanála

# Inspector's Report

# ABP-317810-23

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| Development | Open Cycle Gas turbine power plant (350MW) and associated infrastructure |
| Location | Located on land to the north of Tynagh Power Station, Derryfrench, Tynagh, Loughrea, Co. Galway. |
| Planning Authority | Galway County Council |
| Applicant | EP Energy Development Ltd. |
| Type of Application | Strategic Infrastructure, Section 37E of the Planning and Development Act 2000, (as amended) |
| Prescribed Bodies | 1. Galway County Council<br>2. Health and Safety Authority (HSA)<br>3. Dept. of Housing, Local Government and Heritage (DAU)<br>4. An Taisce<br>5. Transport Infrastructure Ireland (\|TII)<br>6. Environmental Protection Agency (EPA) |
| Third Party Observers | 1. Colm Shaughnessy<br>2. Enda and Philomena Briscoe |

3. Niamh and Stephen Loughrey
4. John Briscoe
5. Pat Whelan
6. Ralph Conroy

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| Date of Site Inspection | 14th December 2023 |
| Inspector | Laura Finn |

# Contents


1.0 Introduction ..... 5

2.0 Proposed Development ..... 8

3.0 Policy Context ..... 11

4.0 Submissions & Observations ..... 20

5.0 Planning Assessment ..... 41

6.0 Environmental Impact Assessment (EIA) ..... 45

7.0 Assessment of Likely Significant Effects ..... 57

8.0 Air Quality & Climate ..... 58

9.0 Cultural Heritage and Archaeology ..... 65

10.0 Biodiversity ..... 70

11.0 Landscape & Visual ..... 76

12.0 Noise and Vibration ..... 83

13.0 Water Environment ..... 88

14.0 Soils and Geology ..... 96

15.0 Traffic ..... 101

16.0 Land Use ..... 106

17.0 Population & Human Health ..... 111

18.0 Material Assets ..... 121

19.0 Major Accidents & Disasters ..... 127

20.0 Cumulative & Combined Effects and Interactions ..... 133

21.0 Reasoned Conclusion ..... 134

22.0 The Likely Significant Effects on a European Site ..... 136

23.0 Recommendation ..... 145

24.0 Conditions ..... 150

Appendix 1 - Form 1 – EIA Pre-Screening ..... 156

# 1.0 Introduction

## 1.1 Context

This is a direct application to the Board under Section 37E of the Planning and Development Act, 2000, as amended by the Planning and Development (Strategic Infrastructure) Act, 2006. The application is being made by EP Energy Developments Limited for a proposed Open Cycle Gas Turbine (OCGT) power plant (350MW) and associated infrastructure on land to the north of Tynagh Power Station, Derryfrench, Tynagh, Loughrea, Co.Galway.

## 1.2 Pre-Application SID Consultations

As provided for under Section 37B of the Planning and Development Act 2000, as amended, the applicant entered into discussions with the Board, which are detailed on File Reference ABP-315213-22. The application meets the threshold of *'a thermal power station or other combustion installation with a total energy output of 300 megawatts or more'* as set out in the 7th Schedule of the Planning and Development Act 2000 (as amended).

On foot of an assessment and recommendation from the reporting inspector that the proposed development did constitute Strategic Infrastructure within the meaning of the Acts, the Board issued a direction on the 8th of May 2023 that the development as proposed constitutes Strategic Infrastructure. The current application is made on foot of this decision.

## 1.3 Site Location and Description

The proposed development site (the site) measuring c. 8.3 ha is located on a rural site which was formerly part of the Tynagh lead and zinc mines in the townland of Derryfrench, Tynagh, Loughrea, County Galway. Derryfrench is located c. 2km to the northwest of Tynagh Village and c. 12km southeast of Loughrea town in east County Galway. The site partially lies within the existing Tynagh Closed Cycle Gas Turbine (CCGT) Power Station site. The southern portion of the site overlaps with the existing Tynagh Power Station site gas Above Ground Installation (AGI) and the existing 220KV electrical substation.

The site has a high pressure buried gas pipeline and a 220kv overhead power line which runs through the centre of the site, which connects to the existing ESB substation. The development site remains occupied by various structures and tanks, as well as being traversed by an existing 220kV overhead line. The site also contains an existing (disused) works shed. The site is formed on different levels, with the southeast corner being lowest adjacent to a large boundary drain that serves as the eastern site boundary. The site rises towards the west and levels out around the location of the disused works shed. To the north of the disused works shed there is a slope which rises to a level piece of land, which was previously a works compound area.

Sperrin Galvanisers Limited, an integrated Pollution Prevention Control (IPPC) licenced facility, is located adjacent to the south-western site boundary. The site is bounded to the east by a large drain and the former Tynagh mine tailings ponds and to the north by existing forestry and agricultural lands.

Vehicular access to the site will be from the west via the existing Tynagh Power Station access road, where it will join the local public road network on the LP4310 Gurtymadden (note that some public documents refer to this road as Gortymadden) to Tynagh Road. There are several detached houses along this local road and several farms located in the surrounding area. Milchem Equestrian Centre is located 330m to the northeast.

## 1.4 Planning History

### 1.4.1 Subject Site

**ABP-315213-22: Current Application -** Pre-application consultation request to An Bord Pleanála (ABP) regarding the potential SID status of OCGT power plant and ancillary buildings with a total energy output of 300MW or more. Confirmed SID on 08/05/2023.

**ABP-316843-23:** Pre-application consultation request to ABP in April 2023 regarding SID status of additional plant at the permitted OCGT (ABP-313538-22) (Request Withdrawn)

**ABP Ref. ABP-313538-22 & File Ref. 21/2192:** Permission granted on 08/02/2023 for OCGT plant (299MW) and associated infrastructure and buildings.

**File Ref. 04/1974:** Permission granted on 22/06/2004 for a 220KV overhead transmission line from ESB transmission network to 400MW power station.

### 1.4.2 Tynagh Power Station (Located to the south of Subject Site)

**File Ref. 03/2943:** Permission granted on 22/09/2003 for a 400MW electricity generating station.

**File Ref. 04/2511:** Permission granted on 22/07/2004 for amendments to 03/2943 for construction of a gate house, a gas cylinder, storage shed, feed pump building, emergency generator and liquid fuel unloading station.

**File Ref. 04/2193:** Permission granted on 06/07/2004 for a natural gas pressure reducing station consisting of 4 no. single storey buildings, fenced area and associated pipe work.

**File Ref. 04/4554**: Permission refused on 09/12/2004 for a c. 2km temporary road to facilitate the delivery of abnormally large loads of electricity generating equipment for the 400MW gas powered plant.

### 1.4.3 Other Relevant Planning History

**File Ref. 649:** **Tynagh Mines**, mining and processing of ore, factory (Irish Base Metals – February 1964). Tynagh Mines located to the east of the subject site was in operation on an opencast and underground basis from c. 1965 to 1981, after which a partial restoration and site rehabilitation was undertaken. Other permissions granted for various amendments to Tynagh Mines including galvanised steel fabrication facility (**File Ref. 06/1974)** and 15M high telecom monopole structure (**File Ref. 05/346**).

**File Ref. 19/633:** **Sperrin Galvanisers Ltd.,** Permission granted on 17/06/2019 to extend workshop and erect acoustic fencing along a section of the existing site boundary.

**File Ref 00/5409:** Permission granted on 18/01/2001 for a new 220kv overhead line measuring c. 47km from a proposed 400/220kv substation at Ballynaheskeragh to Cashla 220kv substation at Barrettspark ESB.

### 1.4.4 Industrial Emissions Licence

**IPPC Licence PO700-01 & PO700-02:** Emissions from the existing Tynagh Energy facility are governed an EPA Industrial Emissions Licence under 2.1 of the First Schedule of the EPA Act '*Combustion of fuels in installations with a total rated thermal input of 50MW or more'.*

## 2.0 Proposed Development

### 2.1 Documentation

The following documents accompany the planning application;

- Cover Letter & Appendices
- ABP SID Planning Application Form and Appendices
- Planning Statement
- Environmental Impact Assessment Report (EIAR)
- Landowner Letters of Consent and Associated Folio Maps
- Site Notices & Newspaper Notices
- Letters to Prescribed Bodies
- AA Screening (presented in Appendix 9D of the accompanying EIAR)
- Drawings prepared by TODD Architects, Fichtner Consulting Engineers Limited and AECOM

The EIAR is presented as three volumes:

- Volume I: Environmental Impact Assessment Report (Main Text)
- Volume II: Appendices; and,
- Volume III: Figures

A Separate Non-Technical Summary has been provided.

### 2.2 Development Description

The proposed development consists of a 350MW gas turbine operating in open cycle gas turbine (OCGT) mode primarily fuelled by natural gas, secondary fuel storage and unloading area, water storage tanks, surface water drainage

system (including an upgrade to the existing foul water system), gas AGI, electrical substation connection and all associated ancillary development site works and services.

The plant will operate as a 'peaking plant', spending most of its time on standby and will be run to complement renewable power generation technology. The objective of the development is to provide support to the electricity network during periods when there is a gap between renewable power generation and power demand.

The proposed development will include the following components;

- The 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, 40m emissions stack with Continuous Emissions Monitoring System (CEMS), circuit breaker; main auxiliary and ancillary transformers, switchyard, acoustic barriers, electrical rooms, fin fan 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 unload area);
- Fuel gantry pipe;
- Demineralised water storage tanks and pumphouse, firewater storage tank and pumphouse;
- Emergency diesel generator (EDG);
- Gas Above Ground Installation (AGI) to facilitate connection to existing gas pipeline;
- A new 220 kV switchyard bay within the existing electricity substation;
- All associated ancillary development, site works and services including underground services/electrical cabling, surface water drainage system; and upgrade to existing foul water treatment system, fencing, internal roadways, lighting, etc.
- The application is for a 25-year permission.

The application relates to development for the purposes of an activity requiring a licence from the Environmental Protection Agency (EPA) under the Industrial Emissions Directive (IED). It also relates to a Lower Tier COMAH establishment and therefore falls under the requirements of the Control of Major Accident Hazard (COMAH) Regulations 2015.

## 2.3 EIA Screening

The proposed development falls within the definition of a project under the EIA Directive 2011/92/EU as amended by EIA Directive 2014/52/EU and falls within the scope of Class 2 (a) under Part 1 Schedule 5 of the Planning and Development Regulations 2001 (as amended) '*a thermal power station or other combustion installation with a heat output of 300 megawatts or more'*.

The maximum power output of the proposed OCGT will be 350MW, which is in excess of the threshold set out under Schedule 5 for a thermal power station. A mandatory EIA is required. An EIAR accompanies the application.

## 2.4 Natural Heritage Designations

The nearest National or European designated site is located c. 6km from the development site, namely Slieve Aughty Mountains SPA. There are nine SACs and five SPAs (Natura 2000 sites) located within 15km of the development site. These include Ardgraigue Bog SAC [2356] (c. 8.2km east), Barroughter Bog SAC [0231] (c.10km southeast & c.17km downstream), Pollnaknockaun Wood Nature Reserve SAC [0319] (c.10.8km south), Lough Derg, North East Shore SAC [2241] (c. 11.3km southeast), Rosturra Wood SAC [1313] (c. 11.04km southeast), Lough Rea SAC [0304] (c. 11.04km west), Cloonmoylan Bog SAC [0248] (c. 11.59km south), Derrycrag Wood Nature Reserve SAC [0261] (c. 13.14km south), River Shannon Callows SAC [0216] (c. 14.26km east), Slieve Aughty Mountains SPA [4168] (c. 6.04km southwest), Lough Derg (Shannon) SPA [4058] (c. 11.08km southeast and c. 19km downstream), Lough Rea SPA [4134] (c. 11.46km west), River Shannon Callows SAC [0216] (c. 14.2km east), Middle Shannon Callows SPA [4096] (c. 14.27km east).

The following Natural Heritage Areas (NHAs) are located within 15km of the site; Eskerboy Bog NHA (c. 4.84km), Cloonoolish Bog NHA (c. 7.46km), Capira/Derrew Bog NHA (c.10.2km), Sliabh Aughty Bog NHA (c. 10.81km), Moorfield Bog NHA (c.10.83km), Mineen Bog NHA (c. 14.23km).

The following Proposed Natural Heritage Areas (pNHAs) are located within 15km of the site; Ardraigue Bog pNHA (c. 8.32km), Barroughter Bog pNHA (c. 9.87km), Pollnaknockaun Wood Nature Reserve pNHA (c. 10.69km), Rosturra

Wood pNHA (c. 10.89km), Lough Derg pNHA (c. 10.9km), Cloonmoylan Bog pNHA (c. 11.44km), Lough Rea pNHA (c. 11.47km), Derrycrag Nature Reserve pNHA (c.12.99km), River Shannon Callows pNHA (c. 14.15km), Lough Derg pNHA (c. 14.33km).

### 2.5 Appropriate Assessment (AA) Screening

An AA Screening was carried out by the applicant and is presented in Appendix 9D of the accompanying EIAR. The report identified the European sites within a 15km radius/zone of influence and described the likely source of impacts. It concluded the proposed development either individually or in-combination with other plans or project, would not have likely significant effects on any European site. An AA Screening is presented in Section 22.0 of this report.

## 3.0 Policy Context

Regard is had to the following County, European, National, Regional and Other Relevant Policy documents:

**Local and Regional Policy**

- Galway County Development Plan 2022 – 2028
- Regional Spatial & Economic Strategy for the North and West Region (2020 –2032)

**European Policy**

- RED III (European Renewable Energy Directive (EU/2023/2413))
- REPowerEU Plan 2022 and Directive EU 2018/2001, as amended 18.05.2022
- European Green Deal 2020

**National and Other Energy Sector Policy, Reports and Legislation**

- National Planning Framework 2018-2040 (NPF)
- The National Development Plan 2021-2030
- Climate Action and Low Carbon Development (Amendment) Act 2021
- Climate Action Plan 2024 (CAP 2024)
- Energy Security in Ireland to 2030, Energy Security Package, Nov. 2023
- National Energy Security Framework, April 2022
- Policy Statement on Security of Electricity Supply, November 2021

- Long-Term Strategy on Greenhouse Gas Emissions Reductions (April 2023)
- National Climate and Energy Plan 2021-2030 (NCEP)
- National Biodiversity Action Plan
- All-Island Generation Capacity Statement 2022 – 2031

## 3.1 Local and Regional Policy Context

### 3.1.1 Galway County Development Plan 2022-2028 (the Plan) - Renewable Energy Policy

The relevant sections of the Plan relating to Renewable Energy are contained in **Chapter 7** and **Chapter 14** (Relevant Policy Below).

**Chapter 7: Infrastructure, Utilities and Environmental Protection**

**Electricity and Gas Policy Objectives:**

- EG1 Enhancement of Electricity Infrastructure
- EG2 Delivery of Electricity and Gas Infrastructure
- EG3 Power Capacity
- EG4 Irelands Grid Development Strategy

**Chapter 14: Climate Change, Energy and Renewable Resource**

**Climate Change Policy Objectives:**

- CC1 Climate Change
- CC2 Transition to a low carbon, climate resilient society
- CC3 County Galway Climate Adaptation Strategy 2019 – 2024
- CC4 Local Authority Action Plan
- CC5 Climate Adaptation and Mitigation
- CC6 Local Authority Renewable Energy Strategy (LARES)
- CC7 Climate Action Fund

In relation to **de-carbonisation**, Section 14.7.3 of the plan states;

> *'The de-carbonisation of the economy will require a significant increase in the provision of a secure and adequate electricity infrastructure to meet the growth in demand and to ensure that an efficient and reliable electricity supply is available to households, business and industry. A strong transmission grid is essential to attract and retain industrial investment, to ensure competitive energy supplies, to achieve balanced*

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

*The gas network plays a key role as part of the supporting infrastructure for renewable energy developments. Gas will play an important part of Irelands energy economy for the foreseeable future……..The NDP identifies existing gas pipeline connections serving Galway City, Craughwell, Tuam, Gort,* ***Tynagh****, Loughrea, Ballinasloe and Headford. This demonstrates that there is an established gas transmission network in County Galway capable of supporting renewable energy development across various parts of the County. Ireland owns and operates the gas transmission pipeline running from north to south through County Galway and the adjoining wayleaves.'*

The following Plan policy is relevant in relation to support of the Electricity and Gas Networks for the County.

**Electricity and Gas Network Policy Objectives:**

- EG1 Gas Network Generating Capacity
- EG2 Electricity Transmission Networks
- EG3 Natural Gas and Synthetic Networks

Other relevant policy includes Climate Change, SEVESO, Landscape Character Assessment, Renewable Energy Policy Objectives which includes Policy Objectives RE1 – RE9 and the Local Authority Renewable Energy Strategy (LARES).

### 3.1.2 Local Authority Renewable Energy Strategy (LARES) (Appendix 1):

The LARES outlines the potential for a range of renewable resources. It acknowledges the significant contribution they can deliver to make the county more energy secure, less reliant on traditional fossil fuels, enabling future energy export and meeting assigned climate change targets. The subject site is considered '*not normally permissible'* in terms of wind and solar development potential, as per the LARES, however this strategy also recognises that natural gas, particularly renewable and indigenous gas, will continue to have a role to play in the transition to a low carbon economy and that renewable energy

development may require support from such sources in times of high energy demand, with the gas network playing a key role as part of the supporting infrastructure for renewable energy developments.

### 3.1.3 Major Accidents and SEVESO Policy Objectives:

***MAS 1 & MAS 2:*** Separation Distances & Soil Protection Measures

***MAS 3:*** Take into account the provisions of the Major Accidents Directive, relating to the control of major accident hazards involving dangerous substances, and the recommendations of the HSA in the assessment of all planning applications located within the consultation distance of such sites.

### 3.1.4 Landscape Character Assessment (Appendix 4):

The site is classified as having a low landscape sensitivity. The site is not identified as being with the vicinity of any designated scenic routes or protected viewpoint angles and is located within a '*structurally weak'* area in terms of rural settlement.

### 3.1.5 Other GCC Policies and Objectives

- **Non-National Roads NNR 2:** Relates to safeguarding Regional and Local Roads.
- **Water Supply WS 4–7:** Relates to protecting Water Quality.
- **Wastewater WW 6–7:** Relates to Management of Wastewater and SUDS.
- **Air Quality AQ 1-3:** Relates to protecting, monitoring and improving Air Quality
- **Noise Pollution NP 1-5:** Relates with protecting noise quality in line with good practice & legislation.
- **Light Pollution LP 1-3:** Relates to the control of light pollution.
- **Soil Quality SQ 1–3:** Relates to quality of soil.
- **Flood Risk Management FL 2–8 and FL 10:** Relates to Flood Risk Management.
- **Chapter 8 – Tourism and Landscape LCM 1-2, PVRS 1:** Relates to policies for protecting landscapes and views.
- **Chapter 10 - Natural Heritage, Biodiversity and Green/Blue Infrastructure: NHB 1–9, WR 1–2 IS 2, TWHS 1, PG 1:** Relates to policies for protecting natural heritage and biodiversity.
- **Chapter 12 – Architecture, Archaeological and Cultural Heritage: AH 1–3, ARC 1, 4, 9 10 and 12:** Relates to policies for protecting archaeology, built & cultural heritage.

### 3.1.6 Regional Spatial & Economic Strategy (RSES) for the North and West Region

The RSES supports the delivery of the programme for change set out in the National Planning Framework and the National Development Plan and it sets out a strategic vision and policy objective for the Northern and Western Region. It seeks to reduce emissions and support the transition to a low carbon region by 2050. Renewable Energy and Low Carbon Future is considered in **Regional Policy Objectives (RPO) 4.16 – 4.22**. Electrical Grid Network is considered in **RPO 8.1 - 8.4**. Gas Networks is considered in **RPO 8.5 - 8.7**.

## 3.2 Renewable Energy Policy Context (European & National)

### 3.2.1 RED III (European Renewable Energy Directive (EU/2023/2413))

The revised Directive EU/2023/2413 came into force on 20th November 2023. RED III sets an overall renewable energy target of at least 42.5% binding at EU level by 2030, but it is aiming for 45%. This target is raised from the previous 32% target. It means almost doubling the existing share of renewable energy in the EU. The Directive under Section 38 states in relation to Power Plants;

> *'(38) In addition to installing new renewable energy plants, repowering of existing renewable energy power plants has significant potential to contribute to the achievement of the renewable energy targets. Since the existing renewable energy power plants have, for the most part, been installed in sites with significant renewable energy source potential, repowering can ensure the continued use of those sites while reducing the need to designate new sites for renewable energy projects. Repowering includes further benefits such as the existing grid connection, a likely higher degree of public acceptance and knowledge of the environmental impact.'*

This Directive has not yet been enacted into Irish law.

### 3.2.2 REPowerEU Plan 2022 and Directive EU 2018/2001, as amended 18.05.2022

This plan was prepared in response to the Russian invasion of Ukraine. It focuses on the need to end the EU's dependence on Russian fossil fuels and to tackle the climate crisis. It includes the accelerated rollout of renewable energy. It amends the Directive on the Promotion of the Use of Energy from Renewable Sources (Directive EU 2018/2001) to require that 45% of energy is from renewable sources.

Article 1(10) inserts a new Article 16d to ensure that plants for the production of energy from renewable sources, their connection to the grid, the related grid itself or storage assets are presumed to be of overriding public interest for specific purposes.

### 3.2.3 European Green Deal 2020

The aim of this policy is to make Europe climate neutral by 2050. In 2021, the European Climate Law made greenhouse gas emission targets a legal obligation. These targets were increased from 40% to 55% by 2030.

### 3.2.4 National Planning Framework 2018-2040 (NPF)

National Strategic Outcome (NSO) 8 is to transition Ireland to a low carbon and climate resilient society. NSO 9 is the sustainable management of water, waste and other environmental resources, NSO 54 & 55 - to reduce our carbon footprint by integrating climate action into the planning systems & promotes the use of renewable energy, NSO 57 - consideration of River Basin Management Plan Objectives.

### 3.2.5 The National Development Plan 2021-2030

It refers to an 80% target for renewable sources.

### 3.2.6 Climate Action and Low Carbon Development (Amendment) Act 2021

The Act commits Ireland to the objective of becoming a carbon-neutral economy by 2050, reducing emissions by 51% by the end of the decade.

### 3.2.7 Climate Action Plan 2024 (CAP 2024)

CAP 2024 (Dec, 2023) sets out a roadmap to deliver on Irelands climate ambition, of 51% reduction in GHG emissions from 2021-2030 and net-zero emissions by 2050. The plan aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022. 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 as soon as possible to reduce impacts on the carbon budgets. The introduction of renewable gas generation into the grid is an important factor of ensuring a security of supply for Ireland's electricity system.*'

The Plan aims to accelerate grid flexibility and to deliver at least 2 GW of new flexible gas-fired power generation by 2030 and phase out and end the use of coal and peat in electricity generation.

### 3.2.8 Energy Security in Ireland to 2030, Energy Security Package, Nov. 2023

The document confirms that Irelands future energy will be secured by moving to an electricity-led system maximising our renewable energy potential.

### 3.2.9 National Energy Security Framework, April 2022

This sets out the Governments response to the impacts of the war in Ukraine on the energy system in Ireland. Para. 2.3.3 (Electricity) states that;

> *'The level of dispatchable electricity generation capacity (i.e., capacity that does not rely on wind or solar energy) needs to increase significantly over the coming years due to the reduced reliability of existing plants, anticipated new power stations not being developed as planned, expected strong growth in demand for electricity, and the closure of existing generation'.*

### 3.2.10 Policy Statement on Security of Electricity Supply, November 2021

This states that the Programme for Government requires a 51% reduction in greenhouse gas emissions by 2030 and that 80% of electricity consumption will

come from renewable sources by 2030. Ensuring energy security is a national priority, as the electricity system decarbonises towards net zero emissions.

### 3.2.11 Long-Term Strategy on Greenhouse Gas Emissions Reductions (April 2023)

Section 1, Security of Supply, notes that in the transition to a climate neutral future, the pathway to decarbonisation must be underpinned by affordability and security in how we access and use energy. In the short-term, we need to address capacity shortfalls in the electricity system and ensure adequate conventional generation is in place to support the elevated levels of renewable electricity being generated.

### 3.2.12 National Climate and Energy Plan 2021-2030 (NCEP)

Ireland's target to reduce greenhouse gas emissions increased from 40% to 55% by 2030. It refers to reaching 70% of energy from renewables by 2030, underpinned by the Renewable Energy Support Scheme. Energy security is a key priority.

### 3.2.13 National Biodiversity Action Plan 2017 – 2021(NBAP)

The current NBAP has a list of Objectives and Actions which promotes biodiversity as follows, **Objective 1** supports mainstream biodiversity into decision-making across all sectors; **Objective 2** promotes the strengthening of the knowledge base for conservation, management and sustainable use of biodiversity. **Objective 3** promotes increasing awareness and appreciation of biodiversity and ecosystem services; **Objective 4** promotes conserving and restoring biodiversity and ecosystem services in the wider countryside; **Objective 5** refers to conserving and restoring biodiversity and ecosystem in the marine environment; **Objective 6** supports expanding and improving management of protected areas and species; **Objective 7** promotes strengthening international governance for biodiversity and ecosystem services. The 4th National Biodiversity Action Plan (NBAP) has been in development since October 2021. The Plan will set the national biodiversity agenda for the period 2023 – 2027.

### 3.2.14 All-Island Generation Capacity Statement 2022-2031

Capacity statements set out expected electricity demand and the level of generation capacity required, over the next ten years. The 2022 statement predicts a challenging outlook with capacity deficits identified to 2031. In the short-term, deficits will increase due to the deteriorating availability of power plants. In later years the deficits are expected to reduce as new capacity comes forward through the SEM capacity auctions. Further new electricity generation will be required to secure the transition to high levels of renewable electricity.

## 3.3 Overview of Renewable Energy Policy

I consider that European, National and Regional policy clearly supports the provision of an OCGT power plant. The CAP24 specifically provides a target for the delivery of at least 2 GW of new flexible gas-fired power generation. In addition, the Energy Security in Ireland to 2030, Energy Security Package, Nov. 2023, highlights the need for new gas-fired generation as flexible back-up, interconnection and storage to secure our electricity supplies. The Galway County Development Plan also supports the development specifically in Policy Objectives EG1 - EG5 in Chapter 7 and EG1, EG2 and EG3 of Chapter 14.

# 4.0 Submissions & Observations

## 4.1 Planning Authority Submission

### 4.1.1 Roads & Transportation Engineer

No Objection. The Roads and Transportation Engineer requested the following to be agreed in writing prior to commencement of development:

- Demonstration of sightlines onto public road (L-4310) as per DM standard 28 of the GCDP to ensure maximum visibility splays are clear and unobstructed.
- Cash deposit/bond of €100,000 to be paid by the developer to secure the reinstatement of effected public road during construction (from the junction of the L-4310 and the N65 (Gurtymadden Cross) to the site entrance).
- Preparation of a Construction Transport Management Plan (CTMP).
- Up-to-date Road and Bridge Condition Survey, Falling Weight Deflectometer Survey which indicates all culverts and structures crossed over by HGV's or abnormal weight loads.
- Details for the rectification of any construction damage that may arise, arrangements for the protection of bridges to be crossed, details of temporary traffic arrangements, details of a phasing programme for construction.
- Within 3 months of the cessation of the use of public roads/haul routes, completion of a road survey and scheme of repair works to be submitted to the Planning Authority. Works to be completed within 12 months at the developers expense.
- A wheel wash facility to be used by all vehicles exiting the site.

### 4.1.2 Report from Conservation Officer

The Conservation Officers report noted that the EIAR includes a comprehensive Chapter 8 on Cultural Assets and Archaeology. The findings and conclusions of the EIAR were considered appropriate and acceptable. A condition was recommended for Vibration Monitoring on RPS 3648, a thatched house.

### 4.1.3 Report from the Environment Section (Climate Action Co-Ordinator)

**Mitigation -** CEMP to be submitted to the Local Authority for approval prior to commencement of construction. Essential that works on site properly managed and ensure that all mitigation measures and monitoring proposals are fully

implemented. Requested a Condition that works be supervised by a suitably qualified and experienced Ecological Clerk of Works and that brief electronic reports shall be submitted to the Planning and Environment Sections on a monthly basis. In terms of Site Suitability Assessment, and upgrade of existing wastewater treatment plant including discharge to the existing percolation area. It is recommended An Bord Pleanála ensure that there is adequate percolation in the area.

### 4.1.4 Planning Authority Report – Planning Authority (PA) – EIAR Comments

Overall, the PA consider that an adequate EIAR has been submitted, the methodology adopted is acceptable with the conclusions arrived at considered reasonable, summarised as follows;

- **Chapter 7: Air Quality and Climate** – Proposals would not have any unacceptable direct or indirect impacts in terms of air quality.
- **Chapter 8: Cultural Heritage and Archaeology –** No objection to the proposed development, however, a condition is recommended for vibration monitoring on RPS 3648 (thatched cottage).
- **Chapter 9: Biodiversity –** GCC request a Condition that all vegetation clearance be undertaken outside the bird nesting season (between 1st March and 31st August). The Planning Authority are satisfied that effects on biodiversity can be addressed subject to strict adherence to the mitigation measures as detailed and outlined in the EIAR.
- **Chapter 10: Landscape and Visual –** GCC have reviewed the Photomontages & EIAR Chapter 10 and are satisfied that the development as proposed would not result in undue adverse impacts on the receiving environment.
- **Chapter 11: Noise and Vibration** – **Noise** – No significant effects from a noise perspective subject to the implementation of the mitigation measures identified. **Vibration** – The construction is not expected to result in any vibration generating impacts and vibration impacts have been scoped out for the operational phase.

- **Chapter 12: Water Environment** - Following consideration of the Water Section of the EIAR, the planning authority consider that further detail/assessment on river flows would be beneficial in terms of ensuring accumulation emissions does not occur, as is the case made in the EIAR.
- **Chapter 13**: **Soils and Geology** – **Excavations** - Further detail required on excavations on the northern portion of the site. It is recommended that both existing and proposed levels are demonstrated to clearly outline the extent of the excavations as proposed. Also, confirm what will happen with the excavated soil. It is considered that details of imported soils should be assessed including justification for the quantity, source etc.
- **Chapter 14: Traffic** – See recommended conditions in Section 4.1.1 of this report.
- **Chapter 15: Land Use** – The Planning Authority considers that the matters considered are relevant, the methods are appropriate, and the findings provide no indication that the resultant impacts, following the implementation of mitigation, would have a likely significant effect on the environment in terms of land use.
- **Chapter 16: Population & Human Health** – Recommend supervision of works by experienced Ecological Clerk of Works and a final CEMP submitted to the Local Authority.
- **Chapter 17: Material Assets** – The Planning Authority consider a sufficient assessment has been provided by the applicant.
- **Chapter 18: Major Accidents and Disasters** – The Planning Authority note that a submission from the HSA has been submitted to the Bord for consideration.
- **Chapter 19: Cumulative Effects and Interactions** – The assessment of combined effects has not identified any significant combined effects.

### 4.1.5 Planning Authority Assessment

- **Principle of Development** – Complies with County and National energy policy and the Climate Act 2024. Meets a need for electricity generation

that has been signalled by government as being an urgent and appropriate response to the transition to a renewables-based national energy need. Site characteristics has the advantage of being brownfield with existing gas and high-voltage connections and infrastructure. It is considered that the principal of the use on the site for electricity generation would be fully consistent with the proper planning and sustainable development of the area.

- **Appropriate Assessment** – The planning authority concur with the findings of the Appropriate Assessment Screening Report.
- **Protected Structures/ACA/SAAOs/Archaeology** – There are no Protected Structures/ACA/SAAOs within the site boundary. RPS 3648 is located within 1km of the site, situated c. 660m to the south-west. Condition for Vibration Monitoring requested. The planning authority note the size of the subject site which is in excess of 8ha and highlight Section 12.6.11 of the GCC Development Plan, which requires that a proposed development (due to location, size or nature) which may have archaeological implications for archaeological heritage be subject to an Archaeological Assessment, which it states includes areas close to archaeological monuments, extensive in area (half hectare or more) or length (1km or more) and development that require an EIAR. In this regard, a monitoring condition is advisable.
- **Services** - **Public Water Supplies** – Bottled drinking water will be used on site.
- **Wastewater Disposal** – A replacement of the existing wastewater system is proposed. The proposed Bioficient system is of comparable size to the existing system and will operate effectively in conjunction with the existing percolation area.
- **Surface Water** – Treated process water and surface water is discharged into the former open pit mine under terms set out in its Industrial Emissions Licence (IEL) (P0700-02). Surface water drainage will tie into the existing system at the Tynagh Power Station. The report from the Environment Section of GCC notes the absence of any direct discharge proposed to

natural surface waters in the area and that the application details state that provided mitigation measures are implemented, the development will not have any significant effect on groundwater or surface water.

- **Flood Risk** – Dealt with in Chapter 12 and Appendix 12A of the EIAR. Flood risk has been satisfactorily considered and addressed.
- **Hydrological and Hydrogeological Assessments** – The environment section of GCC expresses concern in relation to potential impacts associated with historically contaminated soil on site and highlights that any works on site be properly managed to ensure that all mitigation measures and monitoring proposals are fully implemented.
- **Water Framework Directive** – As referred to in the EIAR, there are potential risks to water bodies (ground and surface) during construction and operation phases from contaminants, however it is stated that with the provision of best practice mitigation measures, this will result in negligible impacts on hydrology and hydrogeology and have an imperceptible effect on any high sensitivity receptors.
- **Landscape and Visual Assessment** - The photomontages are considered to give a reasonable impression of the scale of the development in the context of the receiving landscape and also consider cumulative impacts. It is considered that the new components will read with the existing power plant infrastructure as an overall industrial complex in this Class 1 landscape sensitivity designated area and would not be contrary to the established appearance and character of the area or to the proper planning and sustainable development of the area.

### 4.1.6 Planning Authority Recommendation

The Planning Authority recommended a grant of permission subject to 29 conditions.

### 4.1.7 Applicants Response to Planning Authority

A response was prepared by the applicant dated 20th November 2023 in relation to queries raised by the Planning Authority, as follows:

- **Landscape & Visual Impact** – ***Extensive cut into existing earth bank to the northern portion of the site***

  **Applicants Response -** Cut required to accommodate and provide screening to the secondary fuel storage tank and bund and associated fuel off-loading facility and vehicle circulation.

- **Soils & Geology** – ***Potential Impacts associated with contaminated soils on site***

  **Applicants Response -** Note mitigation measures set out in CEMP – Agreeable to a condition in relation to supervision of works.

- **Imported Soils** – ***Justification for the quantity, source etc***.

  **Applicants Response -** Proposed to be engineered fill. Ground levels to be raised using clean imported fill in the south-eastern part of the site in order to regrade the ground level. New clean imported fill will provide a suitable platform for construction rather than using existing soils on the site. Calculations for imported fill are based on topographical surveys and will be procured by the appointed site contractor.

- **Adequate Percolation** – ***Proposed upgraded wastewater treatment and discharge to the existing percolation area – Is there adequate percolation in this area?***

  **Applicants Response -** The EIAR and the submitted percolation tests confirm that there is adequate percolation. No additional staff required/no additional foul water generated. Existing treatment system to be upgraded and is suitable to cater for the daily allowance.

- **Population and Human Health –** ***Impacts from contaminated soil on site***

  **Applicants Response -** Excavation of material will be minimal and no excavated material will be exported off site. Ground levels will be raised using clean imported fill. Agreeable to a condition in relation to supervision of works.

- **Proposed GCC Conditions**

  **Applicants Response -** The applicant responded to the conditions prescribed by Galway County Council, specifically Condition No. 7 (Restoration Plan), No. 8 (Bond/Cash Deposit for Restoration Phase), No. 17 (Hours of Work), No. 27 (Community Gain).

### 4.1.8 The Views of the Members of Galway County Council & Applicants Response

The Elected Members of Galway County Council met on 25th September 2023. The Members of Loughrea MD met on 9th October 2023. Members at October Plenary Meeting met on 23rd October 2023. Cllr. Ivan Canning submitted an email on 17th October 2023, Cllr. Geraldine Donohue submitted an email on 22nd October 2023 and Cllr. Declan Kelly submitted an email on 23rd October 2023. I summarise hereunder the views of the Elected Members and the corresponding applicants response:

| **Table 4.1. Summary of Elected Members Submissions and Applicants Response** |
|---|
| **Concern over Historical Contaminated Land & Ground Disturbance** |
| **Elected Members Concerns** |
| Concerns raised about implications of disturbing contaminated ground during construction phase. Rehabilitation of overall site must be considered. Concerns were raised in relation to heavy metals, water quality in nearby streams and dust monitoring. Highlighted the importance of ensuring the development does not further adversely affect people who live nearby. EPA in 2003 stated that animals should not be allowed to access the Barnacullia Stream due to levels of lead in sediments. Emissions monitoring must be done to control this. |
| **Applicants Response** |
| Comprehensive site investigations were undertaken and are detailed in Appendix 13A (Ground Investigation Report) and Appendix 13B (Generic Quantitative Risk Assessment Report) of the EIAR. Submitted that the existing ground conditions are therefore understood and have informed the design of the development. Development will be constructed in accordance with current engineering standards |

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| and no excavation material will be exported off site. During operation, the development will follow the conditions of its IE Licence (to be applied for in due course).<br><br>Water quality monitoring will be undertaken at all stages of the development. A CEMP will be prepared by the Contractor to be approved by the Planning Authority, which will detail the measures necessary to prevent adverse effects on the local surface and groundwater environment. This will be monitored before, during and after the works. The applicant is committed to ongoing community consultation and liaison throughout the construction period. (see Appendix 5A of the EIAR). |
| **Human and Animal Health Concerns** |
| **Elected Members Concerns** |
| Purported that a large number of people have become ill and died due to cancers and other rare diseases inside a 3-mile radius of the Tynagh Mine within 20 years of closing. Also, cattle, sheep and horses have gone blind due to lead poisoning while the current power station & Sperrin Galvanisers factories were being built. |
| **Applicants Response** |
| An EIAR has been prepared in line with Schedule 6 of the EIA Regulations, which has assessed the likely significant adverse effects on the environment and correspondingly the appropriate mitigation measures. The unit proposed for the new power plan would be fuelled predominantly by natural gas, which contains only trace concentrations of sulphur. Emissions of measurable concentrations of sulphur dioxide (SO2) from the exhaust stack would not therefore be expected at any time. As set out in Chapter 5.2.16 of the EIAR, the proposed OCGT will not form a visible plume. The OCGT is compliant with current best available techniques for NOX limits, meaning the characteristic yellow tint of the flue gases from the presences of high levels of NOx will not be visible. The proposed OCGT will fall within the remit of the EU's Industrials Emissions Directive (2010/75/EU). The operator will be required to obtain an Industrial Emissions (IE) Licence from the EPA for the proposed OCGT Power Plant. Process emissions to air comply with ELV requirements specified in the IED. |
| **Rates & Business** |
| **Elected Members Concerns** |

| |
|---|
| Fund Development if approved would generate significant revenue in terms of rates for the Local Authority. Country needs power and extra power source will help to attract business to the area. The impact on Tynagh Community must be positive. Fund needs to be put in place for the Tynagh community. |
| **Applicants Response** |
| **Community Gain Fund** – The applicant has proposed a community gain condition, which would be more beneficial to the community over the operational lifetime of the development.<br><br>The applicants suggested condition wording is as follows; *'The applicant shall submit details to the planning authority for written agreement to provide and implement a community gain proposal, including any financial commitments (subject to an annual cap of 35,000 over the operational lifetime of the development) set out therein, which is considered a community gain in accordance with section 37 (G)(7)(d) of the Planning and Development Act 2000, as amended. In default of agreement on any of these commitments, the matter shall be referred to An Bord Pleanála for determination.'* |
| **Emissions & Monitoring** |
| **Elected Members Concerns** |
| Concerns raised in relation to dangerous substances and impact on local residences and monitoring. Monitoring of development during construction and operation extremely important and robust conditions must be implemented by ABP. |
| **Applicants Response** |
| The proposed stack is 40m tall. The existing stack is significantly taller at 55m tall. Proposed development will comply with and be monitored under EU (Large Combustion Plants) Regulations under its Emissions Licence. |
| **Noise & Vibration and Light Pollution** |
| **Elected Members Concerns** |
| 24-hour lighting on site is currently impacting adjoining landowners. The lights that shine from the current power station and the galvanising plant are already very bright. Concern that noise will be unbearable with an additional power station. Noise monitoring to be conducted to control this. |
| **Applicants Response** |

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|---|
| The impact of lighting on surrounding receptors will be limited, with lighting of the proposed 40m stack being provided for maintenance access only. It will not be permanently lit. Chapter 10 of the EIAR sets out mitigation measures to reduce visual effects in relation to additional lighting which will come into effect on completion of construction works. The lighting plan will ensure there is no vertical splits or glare issues to adjoining areas which are not required to be lit.<br><br>Acoustic barriers have been provided as part of the mitigation for the plant. Chapter 11 of the EIAR has completed a Noise and Vibration Impact Assessment which includes cumulative impact. |
| **Imported Soil** |
| **Elected Members Concerns** |
| Query regarding quantity, quality and source of soil proposed to be imported. Where will it be spread? Is there contaminant risk? |
| **Applicants Response** |
| It is intended to raise ground levels using clean imported fill (crushed aggregate 21,000m3 of imported material) in the south-eastern part of the site raising ground levels similar to the existing Tynagh Power Station. New clean imported fill material will be used, breaking direct human contact with subsoils containing elevated heavy metals. Mitigation Measures for construction works are contained in the accompanying CEMP. It will not be 'topsoil', but engineered crushed aggregate material fill to achieve a suitable level platform for the OCGT. The source of the imported engineering fill will be determined by the appointed site contractor. |
| **Tree Felling on Adjacent Site** |
| **Elected Members Concerns** |
| Concern that tree felling (Tree Felling Licence Number: TFL00867422) on adjacent site will increase dust and sediment blowing onto adjacent land. |
| **Applicants Response** |
| The tress in question do not influence the assessment of impact or the Schedule of Environmental Commitments contained within the submitted EIAR. |
| **Documents Enclosed** |
| **Elected Members Concerns** |

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|---|
| Two documents enclosed:<br>1. Contaminants in surface water and sediments around the Tynagh Mine, Galway, Ireland (Queens University, Belfast)<br>2. Private water supplies expose thousands to e-coli and cancer risk (Irish Independent, 20/10/2023) |
| **Applicants Response** |
| **Queens University Belfast report on contaminated soil (2015)** – The EIAR notes that additional surface water monitoring was undertaken to inform the baseline study. Samples were taken in 2021, which confirmed the number of heavy metals were below the laboratory method detection limit, with no exceedances of available Environmental Quality Standards.<br>**Irish Independent Article on Water Supplies** – This article relates to contaminated rural water schemes but does not necessarily relate to the Tynagh Area. Water quality monitoring will be undertaken at all stages. Post construction monitoring will be in accordance with the IE licence (to be applied for). |

## 4.2 Prescribed Bodies

Of the prescribed bodies notified, submissions have been received from the following;

- Health and Safety Authority (HSA)
- Dept. of Housing, Local Government and Heritage (DAU)
- An Taisce
- Transport Infrastructure Ireland (TII)
- Environmental Protection Agency (EPA)

A summary of the Prescribed Bodies submission and the applicant's response is outlined below.

### 4.2.1 Health and Safety Authority (HSA) & Applicants Response

The HSA requested Further Information on 02/10/2023 to provide technical assistance comprising of a list of 24 no. queries. This Further Information was received from the applicant on 9th November 2023. The contents of the submission was referred to the HSA who responded on 21/12/2023. On the basis of the information submitted by the applicant, the HSA confirmed that they

required further technical detail and requested the Land-use planning assessment be updated accordingly by the applicant. The applicant provided an updated plan, which was referred to the HSA. The HSA responded on 24/04/2024 requesting further technical information from the applicant. The applicant responded to the request and on 16/07/2024, the HSA responded to the information provided and advised that the Authority *'Does not advise against the granting of planning permission in the context of major accident hazards.'*

### 4.2.2 Department of Housing, Local Government and Heritage (DAU)

The DAU commented as follows;

- **Biodiversity, vegetation clearance** - Recommends that in the event of a grant of permission a condition be placed that all vegetation clearance works be undertaken outside of the bird nesting period of 1st March to 31st August.
- **Biodiversity, No Net Loss** - The Department promotes Action 1.1.3 of the National Biodiversity Action Plan which emphasises the move toward no net biodiversity loss for development projects. Requested detail in relation to compensation/mitigation measures.
- **Biodiversity Policy** – Matters raised should be considered in line with the objectives of the Galway County Development Plan (GCDP).

**Applicants Response to DAU**

The applicant responded by stating that the GCDP has been referred to in Chapter 9 (Biodiversity), Section 9.3.7 of the EIAR and has been taken into consideration during the Biodiversity Impact Assessment. In relation to compensation/mitigation measures, the applicant stated that construction will minimise loss of all natural habitats and seek to use all remaining existing hardstanding areas as storage areas/set down areas before using previously undeveloped areas. On completion of the development works, any undeveloped areas of bare ground will be left without planting or landscaping to colonise naturally in order to form new areas of grassland for butterflies and replicate the existing habitats which would be lost. An Ecological Clerk of

Works (ECoW) will monitor this colonization and advise on whether larval food plants should be planted for the march fritillary.

### 4.2.3 An Taisce

An Taisce commented as follows;

- An Bord Pleanála (ABP) perform its functions in a manner consistent with the most recently approved Climate Action Plan, National long term climate action strategy, the most recent approved national adaptation framework and approved sectoral adaptation plans, furtherance of the national climate objective, and the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.
- Highlighting Section 15 of the Climate Action and Low Carbon Development (Amendment) Act 2021 (hereafter referred to as the Climate Act). To comply with S. 15 (1), ABP needs to demonstrate that projects align with the Climate Acts objectives around decarbonisation, the net zero requirement and the sectoral limits. Specifically, this is important in relation to a fossil gas-fuelled power plant.
- Clarification on how the operation of the proposed plant over its lifetime will be compatible with the increasingly stringent carbon budgets. Submission suggests that ABP needs to take account of all applications going forward and that permissions should be refused once sectoral ceilings have been reached.
- EPA 2023 Greenhouse Gas Emission Projections Report, June 2023 – states that Irelands first two carbon budgets (2021 – 2030) are projected to be exceeded by a significant margin (between 24% - 34%). An Taisce analysis suggests an even higher exceedance in relation to Irelands carbon budgeting situation. Therefore, constraints on emissions in the remaining budget will be higher. Need to take account of Climate Action Plan 2024.

**Applicants Response to An Taisce**

The applicant responded to An Taisces submission stating that a Climate Impact Assessment was carried out as part of the EIAR. Appendix 7B of the EIAR assesses the impacts on climate change as a result of greenhouse gas emissions (GHGs) during construction, operation life (including maintenance and decommissioning). The GHG assessment takes into consideration Irelands carbon budgets that were available at the time of the assessment. The EIAR acknowledges 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. This is also acknowledged within Ireland's Climate Action Plan. Operational requirements 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.

### 4.2.4 Transport Infrastructure Ireland (TII)

TII commented as follows;

- **Official Policy** – S28 Ministerial Guidelines – Development complies as access is facilitated via the local road network prior to access to the N65, National Road.
- **National Road Network Maintenance and Safety –** Requested further details on proposed haul routes and details in relation to abnormal weight loads.
- **Grid Connection Route –** Acknowledged that there are no interactions with the strategic national road network.
- **Greenways/Active Travel –** Suggests consultation with Galway County Council in relation to any proposals in the vicinity.

**Applicants Response to TII**

The applicant has not provided exact details of the haul routes or abnormal weight loads, as requested but has responded to the TII submission by stating that a CEMP, including a Construction Traffic Management Plan (CTMP) and

abnormal load assessment, will be conditioned under planning as required and that the contractor CEMP shall be submitted to the planning authority for agreement prior to commencement of development.

In relation to any damage caused to the pavement of the existing national road network due to the turning movements of abnormal length loads, the applicant has stated that an abnormal load assessment and details of routing (including any road condition surveys) will be undertaken by the appointed contractor prior to construction once the delivery routing details are finalised and procurement/sourcing details secured.

### 4.2.5 Environmental Protection Agency (EPA)

The EPA commented as follows;

- **IPPC Licence –** Tynagh Energy Limited was issued an IPPC Licence (Reg. No. PO700-02) on 05/12/2012 for the installation located at Tynagh Power Station. In accordance with a 2013 amendment of the EPA Act, the licence was amended on 18th December 2013 to incorporate the requirements of an Industrial Emissions Licence. The activity is Class 2.1 of the EPA Act '*Combustion of fuels in installations with a total rated thermal input of 50MW or more'.*
- The development proposed in the current application may require a licence under Class 2.1 of the EPA Act, due to the location of the site in relation to Licence Reg PO700-02. The licence may need to be reviewed or amended to accommodate the changes proposed in the current application. The Agency has not received a licence application or a licence review application.
- Note that an EIAR has been submitted and it is likely that this will have to be considered by the EPA as part of any review of the IE licence. All matters to do with emissions to the environment from the proposed activities will be assessed by the EPA.

**Applicants Response to EPA**

Noted comments from EPA regarding licensing requirements. Confirmed a licence is being prepared and will be submitted in due course, following a decision on the planning application. Planning authority advised to take account that any matters subject to control under the EPA licensing will be adequately regulated, as a licence is not granted unless the operator can demonstrate compliance.

## 4.3 Third Party Observations & Applicants Response

In total, 6 submissions were received from third parties, as per the original statutory notices. The submissions were made on behalf of local residents. The applicant responded to the third-party observations in a submission dated 9th November 2023.

Following receipt of Further Information from the applicant in relation to technical queries raised by the HSA, which was circulated to the relevant third parties and prescribed bodies, further submissions were received. The applicant then responded to the third-party observations in a submission received on 31st May 2024.

The third-party submissions received, and applicant response may be broadly summarised as follows, with reference made to more pertinent issues within the main assessment:

| **Table 4.2 Summary Table of Third-Party Submissions and Applicants Response** |
|---|
| **Air Pollution** |
| **Third Party Concerns** |
| **Co2 and Sulphur Emissions** - Concern Co2 and sulphur emissions will double from two power stations running at the same time. Sulphur from cleaning the chimney found around the area and concern it will be doubled. Concern that the amount of carbon and other materials emitted from the towers to be harmful to human health. Fumes and yellow discharge coming from current plant, lack of filtering system at |

Sperrin galvanisers and fumes exiting the doors. Request to examine levels of carbon and other materials emitted from the site.

**Applicants Response**

**Co2 and Sulphur Emissions** - Refer to Air Quality and Climate Impact Assessment of the EIAR (Chapter 7 and Appendix 7B). Co2 is not considered to be toxic at environmental concentrations and no health-based environment standards have been set for local air quality management. Any change in local concentrations of Co2 would not therefore be considered to have an adverse effect on local air quality in the vicinity of the site.

The new OCGT power plant will be fuelled predominantly by natural gas, which contains only trace concentrations of sulphur. Sulphur would therefore not be expected to occur. The proposed OCGT will not form a visible plume (Chapter 5, Section 5.2.16 of EIAR explains this). The OCGT is compliant with best techniques for NOx limits and the yellow tint of the flue gases will not be visible. The plant will be operated in line with the Industrial Emissions Licence from the EPA.

**Disturbance of Old Mine/ Pollution Concerns/Health Concerns**

**Third Party Concerns**

**Contamination** - Concerned about the level of contamination on the site and the ability to build the power plant safely. Concern that once the ground is disturbed the wastes, tailings and stream sediments will cause potential toxicity to farm animals and on neighbouring farms. Concern development will cause dust issue on dwelling house and lands which would be injurious to human and livestock health. Request for further information in relation to dust deposition monitoring programme in relation to impact on Lough Derg.

The waterways surrounding the site that are connected to the north Galway vault, which lies adjacent to the site, will be extremely effected by development at the site. Reference made to EPA EIA report 2003. Concern that it can't be safe to develop a power station at the site. Concern about dust blow onto adjoining properties containing high concentrations of lead.

**Ground Stability** - Raised concern about the stability of the land above the mine to hold the weight of the proposed development. Original power station began to sink following construction as it was built on an old mine with numerous tunnels under the site.

**Human Health** - Concern regarding Human Health and illness due to toxicity levels on the site. Refers to amounts of arsenic in the soils of the old mine which could contaminate waterways, local soil and surrounding air, if disturbed. Refers to EPAs, EIA Report from 2003 and EPAs annual environmental reports on the mine site. States site is unfit for development. Screenshot of recommendations from EPA Report (Complaint No. P2002/5219) provided in relation to disturbance of mine waste. Concern regarding impact of disturbance and vibrations during construction on the tailings ponds. Link provided to Report from EPA (United States Environmental Protection Agency) on Human Health & Environmental Impacts of the Electric Power Sector.

**Background Documentation** - Historical documents relating to the Tynagh Mines and Particulate matter pollution in to the atmosphere from power stations.

**Applicants Response**

**Contamination** - The EIAR includes a chapter on Soils & Geology (Chapter 13) and Water (Chapter 12) which assess the likely significant effects. Mitigation measures to protect water during construction works are incorporated into the submitted Construction Environmental Management Plan (CEMP) (Volume 2, Appendix 5A) which will form the basis of the final CEMP to be implemented by the appointed contractor who will conduct the works. The CEMP will be followed during the construction for the protection of the water environment.

**Ground Stability** - A Soils & Geology Impact Assessment was carried out as part of the EIAR (See Chapter 13). The ground conditions are fully understood and have informed the siting and layout of the proposed development. Figure 13.4 in Volume 3 of the EIAR shows that the proposed plant will not sit on historic mine shafts and tunnels. Unlike the original Tynagh Power Station construction, the development involves significantly less excavation as the footprint is smaller and some of the development area is hardstanding. Excavation of material will be minimal, and no excavated material will be exported off site.

It is intended to raise ground levels in the southeast of the site using clean imported fill (crushed aggregate 21,000m3 of imported material). New clean imported fill material will break any potential direct human contact pathway with contaminated subsoils.

**Human Health** - Air Quality and Climate Chapter of EIAR (Chapter 7) includes an assessment of potential construction dust impacts. The application of good working

practice measures and mitigation included in the CEMP (Appendix 5A of EIAR) will mitigate against potential effects on receptors.

Water quality monitoring will be undertaken pre, during and post construction. Post construction monitoring requirements will be in accordance with the IE Licence.

**Visual Impact/Loss of Privacy, Light Pollution, Noise and Vibration & Emissions Licence**

**Third Party Concerns**

**Visual Impact/Loss of Privacy** - 2nd Power plant will be a large eye sore from nearby property causing potential devaluation of property.

**Lighting Pollution** - Existing power plant chimney overlooking house. States that night light from chimney and power station shines directly at the back of the house and through the windows. New plant closer to house and lighting on the chimney would have a detrimental impact at night-time shining through the window of the bedrooms.

**Noise and Vibration** - Concern noise will double from new power station. Currently impact from noise on the house. On 12th August 2020, explosion of noise from high pressure steam pipe blowout which was frightening for the family. This re-occurred a few months later. Concern this will be ongoing if there are two power plants running. Stated that there is a constant hum from current power station. Galvanising plant constantly letting steel fall, working outside permitted operating hours and consider law potentially being broken in relation to noise and air pollution.

Health concerns in relation to construction noise and air pollution, pollution from traffic. Large amounts of combustible fuel stored on site (Large diesel tanks).

**Animal Welfare Including Impacts on Horse Training and Breeding Business** Concern that development will cause adverse effect on livestock due to noise.

Concern that the proposed development will create massive problems for his horse training and breeding business and that his business would not be able to operate even on a restricted scale due to noise impacts**.**

**EPA IE Licence** – Requesting that the conclusions and recommendations from the EIA report in 2003 be fulfilled and ensure the protection of the community from harmful substances.

**Applicants Response**

**Visual Impact** - The proposed emissions stack will be at 40m, which is lower than the existing CCGT Power Station stack, which measures 55m. The 55m stack will remain the most prominent feature in views of the site.

**Lighting Pollution** - The impact of lighting on receptors will be limited, with lighting of the proposed 40m stack being for maintenance access only. It will not be permanently lit. Chapter 10 of EIAR sets out mitigation measures in relation to lighting. A lighting plan will be developed during the detailed design stage to ensure there are no vertical splits or glare issues into adjoining areas which are not required to be lit.

**Noise & Vibration Mitigation** – Acoustic barriers have been provided in the design to mitigate against any noise issues with the new OCGT. (Refer to EIAR Volume 3, Figure S3577-8310-0004). Acoustic Barriers to be provided including a 7m high barrier around the fin fan cooler, an 8m high barrier around the transformer, a 10m high barrier around the generator, turbine, diffuser and stack base. The configuration ensures a significant reduction in noise emissions from the OCGT. The power plant would be operated under an EPA licence with permissible noise emission limits set for the facility. The pipe blowout referred to was recorded with the EPA. This was confirmed to be a very rare occurrence and not a possibility for the new OCGT as it will not be part of the technology used.

It was confirmed that the galvanising plant, which is a separate business not in applicants ownership, was considered as part of the baseline of the EIAR.

**Animal Welfare Including Horse Training and Breeding Business – Noise Impacts -** Acoustic barriers have been provided as part of design, which will significantly reduce noise emissions and impact on livestock**.**

A Noise and Vibration Impact Assessment has been prepared (EIAR, Chapter 11). The use of construction noise and vibration mitigation measures including the adoption of 'best practicable means' will ensure that the construction noise and vibration levels are controlled to the lowest levels practicable. The residual impacts of construction traffic noise are assessed to be not significant. The predicted residual noise levels are at or below the relevant criteria at all the selected receptors. The residual impacts of noise from the operation are assessed to be not significant. The OCGT Plant would be required to adhere to permissible noise emissions limits in line with the EPA IE Licence.

**EPA IE Licence** - The development will comply with the requirements of the European Union (Large Combustion Plants) Regulations 2012 S.I. No 566 of 2012 under its IE Licence (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. Emissions from the proposed stack will be monitored continuously using Continuous Emissions Monitoring Systems (CEMS) and reported in accordance with the requirements for the operation of the plant under an IE Licence which will be applied for in due course.

**Traffic Impact & Flooding**

**Third Party Concerns**

**Traffic Impact** - Concern about increase in traffic on an already busy road.

**Flooding Impact –** Proposed development will increase water flow to Mr Whelan's lands and could possibly cause considerable flooding.

**Applicants Response**

**Traffic** - A traffic assessment was carried out in Chapter 14 of the EIAR. This involved traffic surveys and assessment of all transport links. The EIAR confirmed that no significant adverse effects are expected at residential receptor positions in terms of traffic, air quality or noise. A CEMP and Construction Traffic Management Plan (CTMP) (EIAR Volume 2, Appendix 14E) will be implemented throughout the construction phase. Para 14.5.69 of the EIAR notes the operational phase daily traffic flow is between 5-10 daily arrivals, which is very low. No issues with road capacity were identified.

**Flooding** – A Flood Risk and Drainage Assessment was carried out as part of the EIAR (Volume 2, Appendix 12A). Surface water run-off will be routed to the existing surface water drainage infrastructure of the Tynagh CCTG Power Station. Underground storage and hydrobrakes will control the water flow rate. Mitigation measures have been implemented since previous historical floods at the Tynagh power station site to overcome flooding from prolonged periods of rainfall.

| COMAH Boundary Establishment |
|---|
| **Third Party Concerns** |
| In relation to the Further Information response from the applicant relating to the technical queries raised by the HSA, which was circulated to third parties for comment, the following concerns were raised;<br>• Applicants allege that three stations will form a single COMAH establishment. This is considered by the third party to be incorrect and that the development is a separate site and a new development and should be dealt with on that basis. All of the matters therefore which are required to be dealt with for a new development should be dealt with in this application. |
| **Applicants Response** |
| The applicant has responded by stating that EP Energy Developments Ltd is progressing the development on the basis that all three plants (existing, approved (ABP-313538-22) and proposed) will form a single COMAH establishment rather than it being a new establishment. A single COMAH boundary is shown within Appendix 1 of the Land Use Planning Assessment Report. For clarity, the site location plan identifies the location of the proposed development, however for assessment purposes the Land Use Planning Assessment has identified a single boundary which includes the existing, approved and proposed schemes. |

# 5.0 Planning Assessment

## 5.1 Introduction

I have read the contents of the file in full, visited the site and surroundings, and have had regard to European, National, Regional and Local policy in relation to renewable energy. I have also had regard to the submissions contained on the file including the submissions from the various observers, prescribed bodies and submissions from Galway County Council.

All three sections of this report (Planning Assessment, EIAR Assessment and the Appropriate Assessment Screening) should be read in conjunction so as to avoid unnecessary repetition under each of the sections.

I consider that the key issues that arise for consideration by the Board under this section of the report relate to the following:

- Principle of the development
- Other Matters

## 5.2 Principle of the Development

This section should be read in conjunction with the EIA Section of this report.

The main components of the proposed development are a 350MW Open Cycle Gas Turbine (OCGT) power plant, fuelled by natural gas and associated balance of plant and equipment, 40m high emissions stack, acoustic barriers, a secondary fuel storage and unloading facility, distillate fuel gantry, water storage tanks, gas AGI and electrical substation connection. The project is located within an existing power plant complex which includes the existing 400MW Tynagh Power Plant (CCGT) (Planning Ref: 03/02943) and the recently approved 299MW OCGT electricity generating plant (ABP File Ref 313538). The power station operates under an existing EPA Industrial Emissions (IE) Licence which would be reviewed and/or amended.

The OCGT will operate as a 'Peaking Plant'. An OCGT plant is able to respond to changes in electricity demand by starting up quickly and achieving full output within a short period of time at times of high demand during the country's transition from fossil fuels to renewable energy generation. The generation of power from the gas fired generation will be on demand to respond rapidly to fluctuations in supply (e.g. when the wind is not blowing/ adding to power generation). While it will be required to potentially come into operation at any time of the day or night, it is considered that the requirement to meet demand will be at peak demand AM and PM periods of the day. The plant has the ability to operate 24 hours a day, seven days a week. It is noted however that, in reality, it is expected to only operate during peak periods for a limited number of hours per year.

To facilitate the continued expansion of Irelands renewable generation capacity, and support security of supply, modes of supporting the electricity

network during periods when there is a gap between renewable power generation and power demand will be needed. An OCGT is specifically for this purpose. It facilitates the integration of more renewable generation into the electricity network, supporting Ireland into its transition to a low carbon economy.

In terms of European and National policy, there is recognition of the need to urgently move towards a low carbon and climate resilient society with a sustainable renewable energy supply and associated grid infrastructure provision. The relevant European, National, Regional and Local policies and objectives are set out in Section 3.0 above and will not be repeated here. The Climate Action Plan 2024 (CAP24) 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 carbon budget period. The Plan aims to deliver at least 2GW of new flexible gas-fired power generation and phase out and end the use of coal and peat in electricity generation. Energy Security in Ireland to 2030, Energy Security Package, Nov. 2023 confirms that Irelands future energy will be secured by moving from an oil, peat, coal and gas-based energy system to an electricity-led system maximising our renewable energy potential. In this regard, it states;

> *'Our plans for the electricity system, focused on the addition of renewable generation, demand-side flexibility, new gas-fired generation as flexible back-up, interconnection and storage, are the right ones to secure our electricity supplies. We must focus on delivery and monitor and adjust our plans as we go.'*

The GCC Development Plan contains several policies relating to the protection of air quality and reduction in greenhouse gas emissions, and for the transition to sustainable forms of renewable energy generation. Chapter 14 (Climate Change, Energy and Renewable Resource) of the Plan outlines the Councils ambitions to;

> *'reduce the carbon footprint by integrating climate action into the planning system in support of national targets, support indigenous renewable source in order to reduce dependence on fossil fuels and*

*improve security of supply and the move to a competitive low carbon economy'.*

In terms of GCC Development Plan Policy, Policy Objectives EG1, EG2, EG3, EG4 and EG5 of Chapter 7 of the GCDP 2022 - 2028 and Policy Objectives EG1, EG2 and EG3 of Chapter 14 provide the policy basis for supporting the principle of the proposed development. The GCC Development Plan also contains a variety of policies for the protection of residential and visual amenity, human health and air quality, along with traffic management.

Having regard to:

- European, National and Local Policy in relation to the rapid delivery of renewable energy and specifically National Policy which identifies the need to deliver at least 2GW of new flexible gas fire power stations in order to facilitate Irelands commitment under the Climate Action and Low Carbon Development (Amendment) Act 2021 to the objective of becoming a carbon-neutral economy by 2050.
- The characteristics of the site which include it being a brownfield site in a rural area in proximity to the existing gas and electrical grid infrastructure that serves Tynagh Power Station.
- The overall justification for a 'Peaking Plant', which would provide backup electricity generation to the national grid in order to ensure security of power supply.

I note An Taisces concerns as outlined in Section 4.2.3 of this report, which I won't repeat here. I am satisfied, on balance, that any adverse impacts on climate would be localised, strategically short-term and transitionary, but not significant and would support Ireland into its transition to a low carbon economy.

I am satisfied that the development proposed is supported by Local, European, National and Regional policy in relation to moving from an oil, peat, coal and gas-based energy system to an electricity-led system maximising our renewable energy potential, specifically with the use of new gas-fired generation as flexible back-up, as set out in Section 3 of this report and it would

contribute to the achievement of European and National renewable energy targets.

In conclusion, and having regard to the foregoing, I am satisfied that the development of an OCGT Power Plant would be compatible with EU and National planning, environmental, energy and climate change policy, notwithstanding the predicted increase in CO2 emissions over its 25-year operational lifespan resulting from the transitional use of natural gas to generate electricity for connection to the national grid.

### 5.3 Other Matters

All other issues related to Air Quality and Climate, Cultural Heritage & Archaeology, Biodiversity, Landscape and Visual Amenity, Noise and Vibration, Water, Soils and Geology, Traffic, Land Use and Population & Human Health are addressed in in the following section of this report (EIA).

## 6.0 Environmental Impact Assessment (EIA)

### 6.1 Statutory Provisions

This section of the report deals with the potential environmental impacts of the proposed development during the construction, operation and decommissioning phases.

The development consists of an Open Cycle Gas turbine power plant (350MW) and associated infrastructure. An EIA is required for proposed developments with '*2. (a) A thermal power station or other combustion installation with a heat output of 300 megawatts or more'*. (EIA Directive, Annex 1 and Schedule 5 Part 1 of the P&D Regs).

The development would have a stated thermal output of 350MW. Therefore, the development is subject to mandatory EIA.

## 6.2 EIA Structure

This section of the report comprises the environmental impact assessment of the proposed development in accordance with the Planning and Development Act 2000 (as amended) and the associated Regulations, which incorporate the European Directives on environmental impact assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171 of the Planning and Development Act, 2000 (as amended) defines EIA as:

a. Consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and

b. Includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements on the contents of an EIAR.

This EIA section of the report is therefore divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental parameters, having regard to the EIAR and relevant supplementary information:

- Population and human health,
- Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- Land, soil, water, air and climate,
- Material assets, cultural heritage and the landscape,

- The interaction between the above factors, and
- The vulnerability of the proposed development to risks of major accidents and/or disasters.

It also provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Boards decision, should they agree with the recommendation made.

### 6.3 Issues Raised in Respect of EIA

Issues raised in respect of EIA by Prescribed Bodies and Third-Party Observers are discussed in detail in Section 4.0 above and include the following:

- Air Quality and Climate
- Landscape and Visual Amenity
- Noise and Vibration
- Water Environment - Potential impacts resulting from disturbance to and release of historic heavy metal pollutants and potential contamination of waterways
- Soils and Geology
- Population and Human Health

The issues raised will be assessed under the relevant sections in this report.

### 6.4 Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations 2001

The applicants EIAR is presented as three volumes:

- Volume I: EIAR (Main Text)
- Volume II: Appendices; and,
- Volume III: Figures
- A Non-Technical Summary (NTS) is also provided as a standalone document.

I assess below compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended);

**Table 6.1. Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)**

**A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including the additional information referred to under section 94(b))**

A description of the proposed development site and its location and setting is contained in Vol. 1, Chapter 4. The chapter includes details on the proposed development site location and setting, the surrounding area, site history and potential environmental sensitivities/receptors.
A description of the proposed development is contained in Vol. 1, Chapter 5 of the EIAR including a description of the construction, commissioning & operational phase and decommissioning phase. The description includes the hours of operation, operational phase transport movements and staffing. The description is adequate to enable decision making.

**A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b).**

Chapter 7 to Chapter 18 of the EIAR describes the significant effects on the environment as follows;

**Table 6.1.1 – Summary Table of Adequacy of Information on Likely Significant Impacts**

| Technical Chapter | Description of Likely Significant Impacts | Adequacy of Info (Y/N) |
|---|---|---|
| **Chapter 7 Air Quality and Climate** | Predicted Impacts – Section 7.5<br>Mitigation and Enhancement Measures – Section 7.6<br>Residual Effects - Section 7.7<br>Cumulative Impacts – 7.8 | Y |
| **Chapter 8 Cultural Heritage and Archaeology** | Predicted Impacts - Section 8.5<br>Mitigation and Enhancement Measures – Section 8.6<br>Residual Effects – Section 8.7<br>Cumulative Impacts – Section 8.8 | Y |
| **Chapter 9 Biodiversity** | Predicted Impacts – Section 9.5<br>Mitigation and Enhancement Measures – Section 9.6<br>Residual Impacts – Section 9.7<br>Cumulative Impacts – Section 9.8 | Y |
| **Chapter 10 Landscape and Visual** | Impact Assessment – Section 10.5<br>Mitigation and Enhancement Measures – Section 10.6<br>Residual Effects – Section 10.7 | Y |

| | | |
|---|---|---|
| | Cumulative Effects 10.8 | |
| **Chapter 11 Noise and Vibration** | Predicted Impacts – Section 11.5<br>Mitigation and Enhancement Measures – Section 11.6<br>Residual Impacts – Section 11.7<br>Cumulative Impacts – Section 11.8 | Y |
| **Chapter 12 Water Environment** | Predicted Impacts – Section 12.5<br>Mitigation and Enhancement Measures – Section 12.6<br>Residual Impacts- Section 12.7<br>Cumulative Impacts – Section 12.8 | Y |
| **Chapter 13 Soils and Geology** | Predicted Impacts – Section 13.5<br>Mitigation and Enhancement Measures – Section 13.6<br>Residual Impacts – Section 13.7<br>Cumulative Impacts – Section 13.8 | Y |
| **Chapter 14 Traffic** | Predicted Impacts – Section 14.5<br>Mitigation and Enhancement Measures – Section 14.6<br>Residual Impacts – Section 14.7<br>Cumulative Impacts – 14.8 | Y |
| **Chapter 15 Land Use** | Predicted Impacts – Section 15.5<br>Mitigation Measures – Section 15.6<br>Residual Effect – Section 15.7<br>Cumulative Effects– Section 15.9 | Y |
| **Chapter 16 Population and Human Health** | Predicted Impacts – Section 16.5<br>Mitigation and Enhancement Measures – Section 16.6<br>Residual Impacts – Section 16.7<br>Cumulative Effects – 16.8 | Y |
| **Chapter 17 Material Assets** | Predicted Impacts – Section 17.5<br>Mitigation and Enhancement Measures – Section 17.6<br>Residual Effects – Section 17.7<br>Cumulative Effects – Section 17.8 | Y |
| **Chapter 18 Major Accidents & Disasters** | Predicted Impacts – Section 18.4<br>Mitigation and Enhancement Measures – 18.5<br>Cumulative Impacts – 18.7 | Y |

Cumulative Effects and Interactions are considered in EIAR Chapter 19, and a Summary and Conclusions is presented in EIAR Chapter 20. An assessment of the likely significant effects of the development is carried out for each of the technical chapters of the EIAR. I am satisfied that the assessment of significant effects is comprehensive and robust and enables decision making.

**A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b)).**

The EIAR includes designed in mitigation measures and measures to address potential adverse effects identified in technical studies. (See Table 6.1.1 above

indicating location of Mitigation and Enhancement Measures in each EIAR Chapter).
Chapter 20, Table 20.2 of the EIAR provides a summary of Significant Effects on the Environment and the proposed mitigation/enhancement.
Chapter 20, Table 20.3 provides a Schedule of Environmental Commitments, which is a brief summary of the overall committed mitigation measures.
Mitigation measures comprise standard good practices and site-specific measures and are largely capable of offsetting significant adverse effects identified in the EIAR, for the reasons stated in the assessment below.

**A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment (including the additional information referred to under section 94(b).**

The consideration of Need and Alternatives was analysed in Section 3.0 of the EIAR. The EIAR describes those reasonable alternatives that have been studied. The Alternatives considered related to The Do-Nothing Scenario, Alternative Locations, Alternative Technical Solutions and Alternative Layouts. It concluded that the Do-Nothing scenario was considered but discounted on the basis that there is a clear need for the development. Reasonable alternative layouts within the site and reasonable technologies have been considered, with consideration and comparison of environmental effects. The proposed design has evolved following consideration of available site area, existing site infrastructure and connection to the existing gas supply and existing electrical substation.
I consider that the EIAR contains a description of reasonable alternatives, which is thorough, and which includes revisions made in response to issues arising. I consider that the legislative requirement to provide information relating to the reasonable alternatives which were considered, has been met.

**Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).**

**A description of the baseline environment and likely evolution in the absence of the development.**

A description of the location is contained within Chapter 4.
A description of the baseline environment is contained in each technical chapter of the EIAR as follows; Sections 7.4 (Air Quality and Climate), 8.4 (Cultural Heritage and Archaeology), 9.4 (Biodiversity), 10.4 (Landscape and Visual), 11.4 (Noise & Vibration), 12.4 (Water Environment), 13.4 (Soils and Geology), 14.4 (Traffic), 15.4 (Land Use), 16.4 (Population and Human Health), 17.4 (Material Assets), 18.2 (Major Accidents and Disasters)

**A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved.**

The methodology employed in carrying out the EIA, including the forecasting methods is set out in each of the individual chapters assessing the environmental effects. The applicant has indicated in the different chapters of where difficulties have been encountered (technical or otherwise) in compiling the information to carry out EIA. I comment on these, where necessary in the Summary Table below

and for the reasons stated, I am satisfied that forecasting methods are adequate as outlined in Table 6.2

**Table 6.2 – Summary Table of Adequacy of Forecasting Methods Used**

| **Chapter 7 (Air Quality and Climate)** |
|---|
| **Description of Forecasting Method Used** |
| **Air Quality**<br>Full details of the methodology and approach taken in respect of the assessment are provided in Appendix 7A (Air Quality Assessment) in EIAR Volume II.<br>**Description of Forecasting;**<br>• **Construction Dust Assessment** - Dust (including PM10) from construction considered using a risk-based screening assessment (IAQM, 2014).<br>• **Assessment of Emissions from Road Traffic** – Assessed using the latest version of ADMS-Roads (v5.0) to quantify pollution levels at selected receptors.<br>• The assessment methodology follows the guidance set out in Transport Infrastructure Irelands (TII) technical guidance document 'Guidelines for the Treatment of Air Quality during the Planning and Construction of National Road Schemes, 2011<br>• **Operational Phase Emissions Assessment** – Modelling of Combustion Emissions from the Stack - Assessment done using the latest version of the Atmospheric Dispersion Modelling System ADMS 5 (version V5.2.4). The assessment of operational site emissions has been undertaken with detailed reference to the EPA's Air Dispersion Modelling from Industrial Installations Guidance Note (AG4) (EPA, 2020), referred to as "EPA AG4 Guidance".<br>• Six emissions scenarios were modelled.<br><br>**Climate (Greenhouse Gas Assessment)**<br>The impact of the proposed OCGT Plant on GHGs and climate change are addressed in Technical Appendix 7B (refer to EIAR Volume II).<br><br>Two scenarios were provided in the EIAR including the 'Do Nothing' and the 'Do Something'.<br><br>The EIAR explains that there are currently no published thresholds for assessing the significance of a proposed development impact on climate for EIA. As per IEMA (2022) guidance, the GHG emissions from all projects will contribute to climate change. Therefore, any GHG emissions, that contribute to exceedance of the global emission budget that defines a level of dangerous climate change or threatens efforts to stay within it, can be considered as significant. Each project is evaluated according to its individual characteristics.<br><br>A lifecycle approach to calculating the GHGs was used. This approach considers specific timescales and emissions from different lifecycle phases of a development: product phase (construction materials), construction phase and operational phase. |
| **Adequacy/Omissions/Difficulties (Air Quality and Climate)** |
| **Adequacy of Forecasting (Air Quality)** |

I consider IAQM, ADMS-Roads (v5.0) and Atmospheric Dispersion Modelling System ADMS 5 (version V5.2.4) to be appropriate and adequate forecasting methods to assess the likely impacts of the development proposed.

I consider the Predicted Effects have been described as per the most relevant and latest guidance available. (See Section 7.5 of EIAR).

**Difficulties/Omissions (Air Quality)**

Described in Section 9.0 of Appendix 7A – Assessment of Limitations and Assumptions.

There are inherent uncertainties described in the EIAR with the dispersion modelling process itself. The EIAR describes assumptions made within the assessment to overcome the uncertainties.

I am satisfied the applicant has highlighted the uncertainties and omissions in the data in relation to Air Quality and has used appropriate guidance and assumptions to assess the likely significant impacts.

**Omissions/Difficulties (Climate)**

None noted.

**Assumptions/Limitations**

Assumptions made as part of the GHG assessment are noted in Section 6.1 of the EIAR.

Limitations and Assumptions are explained in Section 4.0 of Appendix 7B (Greenhouse Gas Report). Limitations associated with the approach to be taken for the climate resilience assessment relate to uncertainties inherent within Irish climate projections (EPA, 2015). By its very nature, climate change is associated with a range of assumptions and limitations.

**Adequacy of Forecasting Conclusion**

I am satisfied that the forecasting carried out for Air Quality ad Climate is adequate to assess the potential impacts, including worst-case scenario.

| **Chapter 8 (Cultural Heritage)** | |
|---|---|
| **Description of Forecasting Method Used** | **Adequacy/Omissions/Difficulties** |
| No forecasting carried out for this chapter | N/A |
| **Chapter 9 (Biodiversity)** | |
| **Description of Forecasting Method Used** | **Adequacy/Omissions/Difficulties** |
| No forecasting carried out for this chapter | N/A |
| **Chapter 10 (Landscape and Visual)** | |
| **Description of Forecasting Method Used** | **Adequacy/Omissions/Difficulties** |
| No forecasting carried out for this chapter | N/A |
| **Chapter 11 (Noise and Vibration)** | |
| **Description of Forecasting Method Used** | |

**Vibration**
Vibration assessment is based on the guidance provided in BS 5228-1:2009+A1:2014 *'Code of practice for noise and vibration control on construction and open sites'* (BS 5228), which provides piling vibration prediction methodologies up to a maximum of 110m. In addition, the construction vibration assessment methodology adopted in Highways England document '*Design Manual for Roads and Bridges LA 111 Noise and vibration'* (LA 1111), for assessing road schemes, which recommends a maximum study area of 100m is normally sufficient. On this basis construction phase vibration impacts are scoped out of the assessment presented in the EIAR.

**Construction Phase – Noise**
Construction noise predictions were undertaken using the methodology outlined in ISO 9613-2 'Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation'(ISO 9613-2) based on assumptions on the number and type of plant required for the noisiest phase of the works. In addition, TII guidelines, *'Guidelines for the Treatment of Noise and Vibration in National Road Schemes'* (NRA, 2004) and BS5228 were used to assess potential construction noise impacts. Where the criteria differ, the more stringent of the two was adopted.

**Potential Increase in Traffic Noise Levels** - The CRTN method was used to calculate the 'Basic Noise Level' (BNL). No specific Republic of Ireland guidance containing criteria for noise impacts from construction traffic has been published. The impact of construction phase traffic has therefore been assessed in accordance with criteria based on those provided in LA 111. (Table 11.3 of EIAR)

**Operational Phase - Noise**
A 3D model was created of the operational site using CadnaA (Version 8.2) sound modelling software package. This software implements the sound propagation calculation methodology set out in ISO 9613-2.
See Appendix 11B, Vol II for full details of modelling procedure.
The power plant would be operated under an EPA Industrial Emissions Licence which would be the subject of an application to the EPA.

Methodology from **NG4:** *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (EPA, 2016)* was used to predict the likely noise impacts from the operational phase. See Table 11.4 of EIAR which indicates the Recommended Noise Limit Criteria.

**Adequacy/Omissions/Difficulties**

**Omissions/Difficulties**
No omissions or difficulties have been highlighted.

**Assumptions/Limitations**
Assumptions in relation to the 3D Sound Modelling Procedure are outlined in Appendix 11B, Volume II. I am satisfied the applicant has highlighted the limitations and assumptions adequately.

**Adequacy of Forecasting**
I am satisfied that the forecasting methodology used and screening are adequate in respect of the likely significant effects in relation to construction and operational phase noise and vibration.

**Chapter 12 (Water Environment)**

**Description of Forecasting Method Used**

A qualitative assessment has been carried out on the Water Environment and no specific forecasting has been used.

A Flood Risk and Drainage Assessment (Appendix 12A, EIAR Vol II) was prepared for the site using methodology from '*The Planning System and Flood Risk Management – Guidelines for Planning Authorities (DOEHLG 2009)'.*

**Adequacy/Omissions/Difficulties (Water Environment)**

**Omissions/Difficulties**

The assessment was undertaken using available data and proposed development design details. It was also based on understanding of flow pathways that were ground-truthed during the site walkover. However, some watercourses in the power station area are in culverts and underground for significant sections, and so professional judgment has informed flow pathways and directions for these culverted sections, based on available mapping and available site information.

**Assumptions/Limitations**

Limitations and General Assumptions are described in Section 12.2.6 of the EIAR.

Assumptions and limitations relating to flood risk are outlined in the Flood Risk and Drainage Assessment (Appendix 12A, refer to EIAR Volume II).

**Adequacy of Forecasting**

I am satisfied that the forecasting is adequate based on the methodology used by the applicant. It assesses and describes the likely significant effects in relation to the water environment and the potential flood risk on the site.

**Chapter 13 (Soils and Geology)**

| **Description of Forecasting Method Used** | **Adequacy/Omissions/Difficulties** |
|---|---|
| No forecasting carried out for this chapter | N/A |

**Chapter 14 (Traffic)**

**Description of Forecasting Method Used**

**Construction Phase**

Assessment Guidelines are described in Section 14.2 of the EIAR.

The peak hour traffic flows were assessed against Traffic Infrastructure Ireland (TII) Traffic and Transport Assessment Guidelines, 2014.

The road traffic capacity for each link type has been based on guidance in NRA TD 9/07 Road Link Design.

A peak hour capacity level was calculated using NRA RT180 Geometric Design Guidelines, which is not the latest guidance but is still an active document and suitable for use. The applicant notes that considering both peak hour and daily capacity allows for a more robust assessment.

**Adequacy/Omissions/Difficulties**

**Omissions/Difficulties**
The applicant notes that Ireland was not in full lockdown at the time of any of the traffic surveys, but various restrictions were in place and the general public's travel habits/characteristics were changed. It was therefore considered that surveys completed in June and September 2021, although valid, may not show typical flows due to the ongoing effects of the COVID-19 pandemic. To ensure data collected was robust, historic traffic data was collected from local traffic counters and compared to show the difference in flows between June 2021 (during the pandemic) and June 2019 (pre-pandemic), and also between September 2021 (during the pandemic) and September 2019 (pre-pandemic).

**Adequacy of Forecasting**
I am satisfied that Traffic forecasting is adequate based on the methodology used by the applicant.

| **Chapter 15 (Land Use)** | |
|---|---|
| **Description of Forecasting Method Used** | **Adequacy/Omissions/Difficulties** |
| No forecasting carried out for this chapter | N/A |

**Chapter 16 (Population and Human Health)**

**Description of Forecasting Method Used**

The assessment relies on the assessments and draws on the findings of the following chapters to assess the impacts on human health: Chapter 7 (Air Quality and Climate), Chapter 11 (Noise and Vibration), Chapter 13 (Soils and Geology) and Chapter 12 (Water Environment).

**Adequacy/Omissions/Difficulties (Population and Human Health)**

**Omissions/Difficulties**
The 2016 Census data has been used. The census 2021 was postponed due to Coronavirus pandemic. The most recent Census was carried out April 2022, but only preliminary limited results were available at the time of the EIAR preparation. The applicants note that the 2016 Census information could be misconstrued as presenting an out-of-date profile of the area, However, the 2016 census information can give an overall general indication of the health and wellbeing of residents in the area, and it is the most recent data available.

**Adequacy of Forecasting**
I have reviewed the adequacy of forecasting of individual chapters which feed into the Population and Human Health Chapter as outlined above.

I am satisfied that the forecasting carried out is adequate.

**Chapter 17 (Material Assets)**

**Description of Forecasting Method Used**

**Construction Waste**
The quantities of construction waste generated during the construction phase of the proposed development have been calculated for assessment purposes using the Smartwaste waste benchmark data (Smartwaste/ BRE, 2012)
While the proposed development is not a building, the criteria for industrial buildings has been used, which are available based on either construction spend and building floor area (see Table 17.1 of EIAR).

**Adequacy/Omissions/Difficulties (Material Assets)**

**Omissions/Difficulties**

None Noted.

**Assumptions/Limitations**

The benchmark value for m3 of waste per 100 m2 of floor area has been used for this assessment and is considered to represent a realistic worst-case estimate. Other assumptions in relation to waste are outlined in Chapter 17.2.11 of the EIAR.

**Adequacy of Forecasting**

I am satisfied that construction waste forecasting is adequate based on the methodology used by the applicant.

**Chapter 18 (Major Accidents and Disasters)**

**Description of Forecasting Method Used**

The assessment of MA&Ds has been based on the application of standard hazard identification and risk assessment methodology which is typically applied at COMAH installations.

The method employed for the identification of major accidents and disasters has been based on the application of industry standard risk assessment methodology, which first identifies the dangerous substances which could be present on the site over the lifetime of the proposed development and applies guidewords such as 'fire' and 'flooding' to identify the credible hazard scenarios pertinent to the development.

**Adequacy/Omissions/Difficulties (Major Accidents and Disasters)**

**Omissions/Difficulties**

None noted.

**Adequacy of Forecasting**

I am satisfied that the forecasting carried out, which comprises an assessment of potential scenarios is adequate to identity likelihood of risks relating to the proposed development.

**A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.**

This issue is specifically dealt with in the in Chapter 18 (Major Accidents and Disasters) of the EIAR. Specific risks have been identified in relation to the do-nothing scenario and the assessment of Major Accidents. This includes an assessment of Dangerous Substances (Table 18.1), Summary of Major Accidents (Table 18.2) and Summary of Natural Disasters (Table 18.3) associated with the development. Table 18.4 provides a Summary of Assessment. These risks are reasonable and are assessed in my report.

**Article 94 (c) A summary of the information in non-technical language.**

This information has been submitted as a separate standalone document entitled Non-Technical Summary (NTS). I have read this document, and I am satisfied that the document is concise and comprehensive and is written in a language that is easily understood by a lay member of the public.

**Article 94 (d) Sources used for the description and the assessments used in the report**

| |
|---|
| The sources used to inform the description, and the assessment of the potential environmental impact are set out at the end of each chapter. I consider the sources relied upon are generally appropriate and sufficient. |
| **Article 94 (e) A list of the experts who contributed to the preparation of the report** |
| Details of the assessment team (including a short biography for each team member) and relevant company, as well as their respective inputs to the EIAR is presented in Appendix 1B (refer to EIAR Volume II). I am satisfied that the EIAR has been prepared by competent experts within the various chapters of the EIAR. |

### 6.5 Consultations

The application has been submitted in accordance with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) in respect of public notices.

Consultations are discussed in Chapter 6 of the EIAR. The applicant prepared Statutory Site Notices and a Website and Prescribed Bodies have been consulted. I am satisfied, therefore, that appropriate consultations have been carried out and that third parties have had the opportunity to comment on the proposals in advance of decision making.

### 6.6 Conclusion on compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended)

Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and supplementary information provided by the developer is sufficient to comply with Article 94 of the Planning and Development Regulations, 2001(as amended).

## 7.0 Assessment of Likely Significant Effects

This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out Section 171A of the Planning and Development Act 2000 (as amended):

- Population and human health.

- Biodiversity, with particular attention to the species and habitats protected under the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC respectively).
- Land, soil, water, air and climate.
- Material assets, cultural heritage and the landscape.
- The interaction between these factors.

In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR and submissions received and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on these environmental parameters and the interaction of these. Each topic section is therefore structured around the following headings:

- Issues raised in the application.
- Examination, analysis and evaluation of the EIAR.
- The Assessment: Direct and indirect effects.
- Conclusion: Direct and indirect effects.

# 8.0 Air Quality & Climate

## 8.1 Issues Raised

As outlined in Section 4.0 of this report, An Taisce (Prescribed Body) raised concerns in relation to the projects ability over its lifetime to be compatible with the increasingly stringent carbon budgets and its compliance with the Climate Acts objectives in relation to decarbonisation.

A number of the third-party observers including Members of GCC raised concern in relation to impact on human health of dust impacts during construction and level of CO2 and sulphur emissions from the chimney stack, including cumulative impacts of two power stations running concurrently.

The EPA noted that the licence may need to be reviewed or amended to accommodate the changes proposed in the current application. The EPA further noted that the EIAR would have to be considered by them as part of any review of the IE licence. All matters in relation to emissions to the environment from the proposed activities will be assessed by the EPA.

## 8.2 Context

Air Quality and Climate are addressed in Chapter 7 of the EIAR, Volume I and Appendix 7A (Air Quality Assessment) and 7B (Greenhouse Gas Report). Chapter 7 sets out the methodology, regulatory and policy framework, baseline environmental conditions and constraints, predicted impacts, mitigation and enhancement measures, residual impacts and cumulative impacts.

The relevant Local, European, National and Regional policies and objectives are set out in section 3.0 above. RED III sets an overall renewable energy target of at least 42.5% binding at EU level by 2030, but it is aiming for 45%. This target is raised from the previous 32% target. It means almost doubling the existing share of renewable energy in the EU. The Climate Action Plan 2024, sets a roadmap for taking decisive action to halve Irelands emissions by 2030 and reach net zero no later than 2050, as committed to in the Programme for Government. 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 carbon budget period. The Plan aims to deliver at least 2 GW of new flexible gas-fired power generation and phase out and end the use of coal and peat in electricity generation.

The Galway County Development Plan (GCDP 2022 – 2028) contains several policies related to the protection of air quality and reduction in greenhouse gas emissions, and for the transition to sustainable forms of renewable energy generation.

## 8.3 Baseline

The baseline environment for the Air Quality Assessment is described in Section 7.4 of the EIAR. The EIAR defines sensitive receptors and distances

to them based on IAQM guidance. The only human health and amenity receptors falling into those screening distances are two residential properties c. 330-380m to the southwest of the site (R1 and R16 on Figure 7A.1, EIAR Vol II). All selected sensitive receptors and distances to the proposed chimney stack are listed in Table 7.6 of the EIAR.

The existing environment has been described with reference to the most recently published EPA Air Quality Report and supplementary data (EPA, 2022). EU legislation on air quality requires that Member States divide their territory into zones for assessment and management of air quality. All receptors used within the assessment are located in Air Quality Zone D, which is used to represent rural locations. The EIAR notes that monitored annual mean NOX concentrations reported by the EPA for Zone D suggest that nature conservation sites considered in this assessment are not currently constrained by the pollutants associated with harm to ecosystems. The background pollutant concentrations used to inform this assessment have been obtained from the most recent Air Quality in Ireland report published by the EPA (2022) and diffusion tube measurements. The predicted future baseline scenario for the construction year pollutant concentrations are well below all AQS values for all pollutants, indicating that air quality in the vicinity of the site will continue to be of a very good standard. Compared to 2019, slightly higher concentrations of NO2 are predicted alongside the N65, though still within the AQS objective values.

## 8.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 8.1;

| **Table 8.1: Summary of Potential Effects (Air Quality)** |
|---|
| **Do Nothing Scenario** |
| • Not examined in EIAR. |
| **Construction Impacts** |
| **<u>Impacts on Amenity and Construction Dust (Section 7.5 of EIAR)</u>**<br>• The area sensitive to dust spoiling and PM10 health effects has been assessed in Appendix 7A in EIAR, Vol II.<br>• Impacts on water bodies and water courses is discussed in Section 7.4.4. An assessment of construction dust on ecological receptors has been screened out.<br>• Table 7.12 of the EIAR indicates that the risk of impact from dust and particulate impacts (pre-mitigation) to be low for pre-construction, earthworks, construction |

and trackout. There would be potentially dusty activities carried out between c. 330m and 380m from two residential properties and adjacent to a galvanising company and 6.1km from the closest designated ecological receptor. The sensitivity of the area can be considered "low" on account of the distance from the activity source to the receptors, and the existing low background concentration particulates.

- The application of good working practice measures and mitigation regularly employed in the construction industry and included within the oCEMP (refer to Appendix 5A, EIAR Volume II) will reduce potential effects at receptors to a not significant level.

**Assessment of Construction Traffic (Section 7.5.10 of EIAR)**

- Predicted Air Quality Statistics for 2024 Construction Scenario are indicated in Table 7.14. The table shows that concentrations of all pollutants are below all environmental standard values for all pollutants, indicating that air quality in the vicinity of the site remains of a good quality.
- Table 7.15 indicates the Predicted Air Quality during Construction Scenario 2024. The magnitude of impact due to construction traffic is predicted to be imperceptible or low for all pollutants at all receptor locations.

**Operational Impacts**

**Operational Phase Emissions Assessment (7.5 of EIAR)**

- The development will be designed such that process emissions to air comply with the ELV requirements specified in the IED. The operation of the power plant, Tynagh North, will be regulated by EPA through the IEL required for the operation of the plant.
- **Emissions Stack Height** - An evaluation of the release height from the proposed stack has indicated that a release height of 40m above ground level can mitigate the short-term and long-term impacts of emissions to an insignificant level, with regard to existing and ambient air quality standards.
- **Impacts on Human Health and Sensitive Ecosystems** - The OCGT is a peaking plant that will have the ability to operate 24 hours a day, seven days a week. It is noted however that, whilst the power plant has the potential to operate in this manner, in reality it is expected to only operate during peak periods for a limited number of hours per year. On a precautionary basis, therefore, the annual mean results have been based on an assumed continuous operation. Short-term results have also been based on continuous operation throughout the year, in order to ensure meteorological conditions that represent the full range of conditions within the study area are taken into account.
- Table 7.16 – Table 7.18 indicates the various results at the location of the maximum predicted and most affected sensitive receptor. Given the worst-case assumptions made, the overall effects of changes in NO2 and CO concentrations due to emissions is considered to be not significant.

**Impacts on Ecological Receptors**

- The significance of effects associated with emissions on designated nature conservation sites is discussed in Chapter 9, Biodiversity and the AA Screening Report (Appendix 9B of Vol II) of the EIAR.
- The assessment concludes that the development will not give rise to significant adverse air quality effects on sensitive ecological habitats.

**Decommissioning Impacts**

- The applicant notes in Section 7.5.30 of the EIAR that during the decommissioning phase, potential air quality impacts will be very similar to or less than the impacts referred to under the construction phase.

**Cumulative Impacts**

**Construction Phase (Cumulative)**

- It is assumed in the EIAR that the construction phase of the Approved Development Ref: 21/2192 could have a degree of overlap with the construction of the proposed development to enable a realistic worst-case scenario to be assessed (however the construction peak periods would not overlap).
- No cumulative impacts expected in relation to dust or construction traffic.

**Operational Impacts on Human Health (Cumulative)**

- Cumulative Impacts for the proposed development, the existing Tynagh CCGT Power Station; and the approved development Ref 21/2192 were assessed in relation to Human Health. See Table 7.19 – Table 7.21 of the EIAR for results. The overall effect of changes in NO2 and CO concentrations due to emissions from the proposed development not considered significant.

**Ecological Receptors (Cumulative)**

- Cumulative impacts on air quality are expected to be negligible. Any other proposed developments which are not accounted for in background pollutant concentrations would be unlikely to cause a significant impact.

### 8.4.1 Greenhouse Gas Assessment (Climate)

The impact of the proposed development on Greenhouse Gas (GHG) and climate change are addressed in Technical Appendix 7B Vol II.

In summary, the GHG assessment includes an assessment of two scenarios, the baseline and the project (Proposed Development) scenario. The baseline scenario or 'do-nothing' scenario is where the proposed OCGT is not progressed. The total greenhouse gas (GHG) from construction of the proposed development are estimated to be 8,484 tCO2e. The gross GHGs from operating the proposed OCGT over its (at least) 25-year life are estimated to be 9,203,947 tCO2e. Annual emissions are estimated to be c. 368,158 tCO2e. In terms of Greenhouse Gases (GHGs), the proposed development has a 'moderate adverse effect'. The plant will continue to operate beyond 2050 and therefore falls short of fully contributing to ROIs net zero trajectory.

### 8.4.2 Climate Change Resilience Assessment

Effects on the proposed development as a result of climate change are likely to be minimal. The key potential climate change impacts on the proposed development and the adaptation methods to increase the resilience are detailed in Table 7.22 of the EIAR.

## 8.5 Mitigation

Mitigation measures are discussed in Section 7.6.1 of the EIAR in relation to construction dust. The management of dust and particulates and application of adequate mitigation measures will be enforced through embedded measures in the CEMP. Section 7.6.2 notes that appropriate embedded measures to be implemented during construction have been identified in line with guidance published by the IAQM to control impacts from dust soiling.

No specific additional mitigation has been identified as necessary for the operation or decommissioning phases, outside the scope of good practice, the embedded mitigation measures discussed above and the sites Industrial Emissions Licence.

## 8.6 Residual Impacts

Emissions from the existing and proposed energy facilities would operate within the terms of an EPA IE licence as reviewed and/or amended, and as such would be subject to ongoing and periodic monitoring. The proposed development would not give rise to any other significant adverse cumulative impacts in-combination with other plans or projects in the surrounding and wider area in relation to Air or Climate. No significant residual impacts have been identified.

## 8.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 7 of the EIAR and all of the associated documentation and submissions on the file in relation to Air Quality and Climate. Air quality modelling has 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 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 299MW OCGT (ABP Ref. ABP-313538-22) show that combined impact on local pollutant concentrations would result in no significant effects.

The proposed development of the facility, which is a 'peaking plant' has the potential to have moderate adverse effects in relation to GHG emissions, mainly during the operational phase from the combustion of natural gas and the consequent release of GHGs. Given that the operational facility will result in additional GHG emissions to the atmosphere, there would be adverse impacts on climate, with resultant knock-on effects for EU and National climate change and carbon emission reduction targets.

However, it is acknowledged that the move towards decarbonisation requires gas-fired peaking power plants to ensure ROIs energy security. The applicant states that the operational requirements of the 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 ROIs climate goals. Climate change resilience impacts during construction are expected to be minimal and will be minimised through a Construction Environmental Management Plan (CEMP). The key potential climate change impacts on the proposed development during operation are deemed to be small, and the adaptation methods to increase the developments resilience have been identified in Table 7.22 of the EIAR. I consider these measures to be appropriate.

Having regard to European, National and Local policy, specifically in relation to the provision of c. 2GW of new flexible gas fired power stations and the overall justification for the facility, which would provide a 'peaking plant' in order to avoid power outages and to ensure security of electricity supply, I am satisfied that, on balance, any adverse impacts on climate would be localised, strategically short term and transitionary, but not significant when considered as part of the evolving energy supply network which is transitioning towards renewable energy, and the contribution the development would make towards achieving the National Objective of Net Zero Co2 emissions by 2050.

## 8.8 Conclusion (Air Quality and Climate)

I have considered the applicants EIAR, and all of the written submissions made in relation to air and climate.

The EIAR did not predict any significant effects on air quality during construction, operational or decommissioning stage, subject to the implementation of construction phase mitigation measures and compliance with the EPA IE Licence operational requirements. The proposed OCGT 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 ground water, and effects on the environment and human health will be minimised and avoided where possible.

I am satisfied that all issues have been appropriately addressed and that no significant adverse effects are likely to occur.

## 9.0 Cultural Heritage and Archaeology

### 9.1 Issues Raised

There were no issues raised in relation to Cultural Heritage and Archaeology in the third-party submissions received.

The GCC Conservation Officers report noted that the findings and conclusions of the EIAR were considered appropriate and acceptable. A condition was recommended for vibration monitoring on RPS 3648, a thatched house.

### 9.2 Context

EIAR Chapter 8 and associated Appendices addresses Cultural Heritage and Archaeology, describing the likely significant impacts upon the cultural heritage resource including archaeological and architectural heritage and the resultant residual impacts. The EIAR describes the study area and scope of the assessment, which considers an archaeological impact study area that extends 1km and a 5km designated heritage asset study area from the red line planning boundary. The EIAR describes the assessment methodology, legislation, policy framework and the methodology for the description of potential effects for all phases of development.

The GCDP 2022 – 2028 contains a variety of policy in relation to the protection of Cultural Heritage and Archaeology. The site and its immediate environs are not covered by any sensitive archaeological designations in the Plan.

## 9.3 Baseline

The area is described as brownfield, a former mine and there is no topsoil within the site. The site does not contain any Protected Structures although there are several features of cultural heritage interest in the surrounding area and along the local road network.

There are 11 recorded archaeological sites within the 1km study area. One natural feature is recorded on the RMP within the study area. The closest Protected Structure as per the GCDP 2022 – 2028 is two-storey vernacular Thatched Cottage (RPS 3648) located on the road to Tynagh to the south of the site entrance. The Cottage is also recorded on the National Inventory of Architectural Heritage (NIAH 30411605). It is located c. 664m to the southwest on the LP4310 Gurtymadden to Tynagh Road. The next closest Protected Structure is a post box (RPS 3647), which is located at the junction of the Loughrea to Tynagh Road and Duniry Road. Castletown Bridge (RPS 3651) is located along the L4310 Road between the site and the N65.

## 9.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 9.1 below.

| **Table 9.1: Summary of Potential Effects (Cultural Heritage & Archaeology)** |
|---|
| **Do Nothing Scenario** |
| • The do-nothing scenario would not result in any significant changes to the baseline cultural heritage resource. The magnitude of impact would be no change leading to a significance of effect of neutral. |
| **Construction Impacts** |
| • The site has been severely disturbed by previous development associated with the mine and construction of the adjoining Power Station, with the result that any heritage assets that may have existed, including the former laneway to the settlement at Gortareask, will have been destroyed. Given these conditions, no previously unrecorded heritage assets will be impacted by groundworks associated with the development. The magnitude of impact is assessed as **Negligible** resulting in a significance of effect of **Imperceptible.**<br>• The thatched cottage (RPS 3648) is largely screened by the existing earthen bund which will also mitigate any potential impacts from construction noise and |

| |
|---|
| vibration. Construction HGV's will be directed to the north of the site (from site entrance to N65) and will not pass this asset. The change to setting would be such that the special interests or qualities of the thatched cottage (RPS 3648) are slightly affected without a noticeable change leading to a magnitude of impact of **Negligible**, leading to a significance of effect of S**light.** The slight significance of effect would be short-term and adverse. Additionally, due to the distance of the thatched cottage to the site it is unlikely to be impacted by any potential construction or operational vibration impacts originating from the site.<br>• The setting of a number of Protected Structures may be temporarily impacted by noise, dust and vibration from the construction related traffic but these would cease at the end of the temporary construction phase. |
| **Operational Impacts** |
| • No operational impacts related to traffic, noise, dust, and vibration are anticipated. |
| **Decommissioning Impacts** |
| • Full details of the decommissioning works will be presented in a Decommissioning Plan (including a Decommissioning Environmental Management Plan) with impacts similar in nature and duration to those temporary effects arising from the construction process. |
| **Cumulative Impacts** |
| • The EIAR describes three planning applications relevant in terms or cumulative effects in Section 8.8.<br>• The thatched house (RPS 3648) is largely screened by the existing earthen bund and construction and operational traffic will not pass this asset. Noise assessments found no significant impacts on sensible receptors located closer or similar distances from the site as the thatched house. Therefore, its distance from the above-mentioned developments and the development site will mitigate any potential impacts from construction noise.<br>• No Cumulative Impacts have been identified in relation to Cultural Heritage & Archaeology. |

## 9.5 Mitigation

The proposals will not physically impact upon previously unknown archaeological remains. Given this, no archaeological mitigation is required during the construction phase.

The proposals will have an impact upon the settings of designated heritage assets during Construction. Consideration of visual intrusion and noise impacts are addressed in EIAR Chapter 10: Landscape and Visual Effects, Chapter 11: Noise and Vibration, and Chapter 14: Traffic, while embedded mitigation measures are included within the scheme design.

During the construction phase, procedures would be adopted as described in the Outline Construction Environmental Management Plan (oCEMP – refer to

EIAR Volume I Chapter 5: The Proposed Development and EIAR Volume II, Appendix 5A), to reduce the impact of noise, dust, and vibration during construction.

The proposed colour scheme is designed and coloured (a neutral grey palate) to match the existing adjoining power station buildings.

No mitigation will be required at the operational phase (including maintenance periods).

## 9.6 Residual Effects

The assessment has identified that after mitigation, there would be impacts on the setting of two assets of high value within the 1km study area and the wider study area including the Thatched Cottage (RPS 3648) and Castletown Bridge (RPS 3651), which are of Regional Importance. For the construction and operational stage, Table 8.8 of the EIAR states the residual impact would remain slight, short-term and adverse. No mitigation is proposed. (See Section 8.7 of EIAR)

## 9.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 8 of the EIAR and all of the associated documentation. The EIAR raised no significant concerns in relation to Cultural Heritage and Archaeology. Given the site history and extensive mining operations that has occurred on the site, it is unlikely that the site contains any features of archaeology or cultural heritage, due to previous site disturbance. There is no potential for impacts on archaeology during the construction phase in relation to the proposed demolition and site works.

The Councils Conservation Officer has no objection to the proposals, subject to a condition requiring the monitoring of traffic vibration impact at Protected Structure RPS 3648 (thatched house). The thatched house (RPS 3648) is largely screened by the existing earthen bund which will also mitigate any potential impacts from construction noise. Additionally, construction and operational traffic will not pass this asset as it will not form part of the haul route. Therefore, no significant construction or operation noise or vibration impacts

are expected to occur on this asset. For these reasons, I do not consider traffic vibration monitoring as suggested by the Conservation Officer necessary at Protected Structure RPS 3648.

The existing 55m emissions stack is visible on the approach towards the asset from the south, however the proposed 40m emissions stack and associated plant will not be visible. The change to setting would be such that the special interests or qualities of the thatched cottage (RPS 3648) are slightly affected without a noticeable change leading to a magnitude of impact of Negligible. Due to the distance of the protected structure to the site, it is unlikely to be impacted by any potential construction or operational vibration impacts originating from the site. The EIAR did not predict any significant adverse impacts on Cultural heritage and Archaeology during the construction, operational or decommissioning phases of the development, other than some temporary minor disturbance impacts along the haul route during the construction works. I am satisfied that this is an accurate assessment of the likely significant impacts in relation to the thatched house (RPS 3648).

There is potential for adverse impacts on Protected Structures along the haul route during the construction phase in relation to noise, dust, vibration and visual impact from the temporary construction related activity. It is noted that Castletown Bridge (RPS 3651) which is located along the L4310 to the north of the site is now closed to traffic as the new bridge to the immediate west carries the main carriageway. Construction and operational traffic will not pass directly over Castletown Bridge so noise (and traffic vibration) and the physical presence of traffic will not affect this asset. Castletown Bridge (RPS 3651) is located approximately 10m from the current bridge and will not be impacted by major vibrations from passing HGV traffic.

I am satisfied that the proposed development would not have an impact on the character or setting of any Protected Structure. The final CEMP will include a Traffic Management Plan (CTMP) and the haul route will be agreed with the Planning Authority. The surrounding road network should be kept free from construction related dust as per the CEMP. This can be addressed by way of a planning condition.

Temporary effects arising from the process of decommissioning are considered to be similar in nature and duration to those temporary effects arising from the construction process. The proposed development would not have an adverse impact on the character or setting of any other feature of cultural heritage value in the wider area.

### 9.8 Conclusion (Cultural Heritage and Archaeology)

I have considered the applicants EIAR in relation to Cultural Heritage and Archaeology and am satisfied that no significant adverse effects are likely to arise in relation to Cultural Heritage and Archaeology.

## 10.0 Biodiversity

### 10.1 Issues Raised

There were no issues raised by third parties in relation to biodiversity in the submissions received.

GCC request a condition that all vegetation clearance be undertaken outside the bird nesting season (between 1st March and 31st August). The Planning Authority are satisfied that effects on biodiversity can be addressed subject to strict adherence to the mitigation measures as detailed and outlined in the EIAR.

The DAU recommends that no vegetation clearances take place during bird nesting period, that there is no net loss in biodiversity and that GCC Development Plan be considered in relation to biodiversity objectives.

### 10.2 Context

Biodiversity is addressed in Chapter 9 of the EIAR and associated Technical Appendices. The EIAR describes the methodology utilised to determine the Zone of Influence (ZOI). Field surveys were carried out on the site and immediate surrounding lands, which included Preliminary Ecological Appraisal (PEA), habitats and plants, bat preliminary roost assessment, otter and badger,

amphibians, wintering birds and breeding birds. The EIAR described the ecological baseline conditions and constraints, the legislative context and planning policy and guidance.

The relevant Local, European, National and Regional policies and objectives are set out in Section 3.0 above. The GCDP 2022-2028 contains a variety of policies for the preservation, protection and enhancement of natural heritage and biodiversity. The site is not covered by any environmental protections.

There are thirteen European protected sites within 15km of the site. There is a hydrological connection of over 17km to Barroughter Bog and over 19km to Lough Derg via the Cloonprask/Barnacullia Stream and Mill Stream to the east and north and the Lisduff Stream to the south which are located 13m, 250m and 510m from the site respectively.

An AA Screening has been undertaken in relation to Protected European sites within a 15km radius from the site. (Refer to Section 22.0 of this report), which concluded that there would be no loss, disturbance or damage to any European sites and their constituent Qi/SCI habits or species and that progression to a full Appropriate Assessment was not required.

### 10.3 Baseline

There are thirteen international nature conservation designations located within 15km of the site. None fall within the site. The nearest European designated site is Slieve Aughty Mountains SPA [4168] which is located c. 6.1km to the southwest. There are no national nature conservation designations or sites with non-statutory designations for nature conservation located within 2km of the site.

It is noted that there is a single empty shed in the south of the site, which provides negligible value for wildlife, specifically bats roosting. No trees were identified on the site or within 50m of the site to be suitable for bat roosting. No protected or notable plants or invasive species were identified within the site. No evidence of otters or badgers or any other protected mammals was identified within 150m of the site. Smooth newt was identified within the small pond, but no common frogs were observed.

Surveys identified fourteen species of wintering birds within the study area. The breeding bird survey on the site and surrounding areas recorded four species of conservation concern for breeding in Ireland. No bird nests were recorded.

The EIAR did not predict any significant adverse impacts on biodiversity during any of the phases, subject to the implementation of construction phase mitigation measures and adherence to the final CEMP and operational phase measures related to the ongoing management of the facility and compliance with the EPA IE licence emissions limits (as reviewed and/or amended).

## 10.4 Potential Effects and Proposed Mitigation & Enhancement Measures

Likely significant effects of the development and proposed mitigation, as identified in the EIAR are summarised in Table 10.1 below. Mitigation and enhancement measures are contained in Section 9.6 of the EIAR and in the CEMP contained within Appendix 5A, Vol II of the EIAR and final CEMP when agreed prior to construction. The primary ecological mitigation requirement comprises the commission of an Ecological Clerk of Works (ECoW) to oversee and advise both contractors and site operators during times of major work within particularly sensitive ecological windows (i.e., breeding bird season, vegetation clearance). A summary of the predicted impacts is contained within Table 9.9 of the applicants EIAR. A summary of other specific mitigation measures is described below;

| **Table 10.1 Summary of Potential Impacts & Mitigation (Biodiversity)** |
|---|
| **Do-Nothing Scenario** |
| • In the absence of the development, no significant changes in habitats or habitat condition are likely to occur under the current site management regime. Should the spoil and bare ground continue to be disturbed frequently, vegetation cover will remain low with negligible suitability for wildlife. Without management, the species-rich grassland is likely to scrub over and eventually succeed to woodland, resulting in loss of grassland biodiversity and potential loss of habitat for important invertebrates. |
| **Construction & Decommissioning Phase Impacts (Table 9.7 & 9.9 of EIAR) & Proposed Mitigation and Enhancement Measures** |
| **Habitats** |
| • All habitats on site are of negligible ecological value, except for semi-natural grassland which is assessed to be of local (local higher) value. Construction will result in the partial or potentially entire loss of semi-natural grassland and the impacts could be significant at local (higher) geographic scale in the absence of mitigation. |
| **Mitigation and Enhancement Measures (Habitats)** |

| |
|---|
| • There will be unavoidable loss of semi-natural grassland (up to c. 2.2ha) and scrub (c. 0.025 ha). This habitat is likely to return naturally if areas are left unmanaged following construction. On completion of the power plant, any undeveloped areas of bare ground will be left without planting or landscaping to colonise naturally in order to replicate the existing habitats which would be lost. |
| **Other Protected Mammals** |
| • The potential impact on protected mammals including Irish hare and hedgehog is loss of habitat and disturbance from construction activities. |
| **Mitigation and Enhancement Measures (Other Protected Mammals)** |
| • Check for mammals such as hedgehog and Irish hare must be undertaken prior to vegetation removal. |
| **Amphibians** |
| • A medium-sized breeding population of smooth newt (Nationally Protected Species) was found in a small pond within the site, c. 50m north of the construction/operation footprint. Construction could potentially impact this species through loss of terrestrial and breeding habitat, injury or mortality of breeding newts and hibernating news in the grassland to be removed, and pollution of the waterbody (if retained) via contaminated surface water run-off resulting in the potential loss of the site population. Impacts could be significant at the County (medium) geographic scale in the absence of mitigation. |
| **Mitigation and Enhancement Measures (Amphibians)** |
| • Robust mitigation is required to protect smooth newt from impacts arising from construction works on the site. The pond supporting the newt population must remain intact and untouched by potential pollution. This will require a full suite of pollution prevention measures during construction. A detailed list of mitigation measures are included in the oCEMP. |
| **Wintering birds** |
| • From the twelve bird surveys undertaken over a number of years, it is highlighted that the irregular use by birds of the site and surrounding habitat suggested that these are sub-optimal habitats, and not those on which wintering bird populations are dependent. The construction phase may disturb wintering birds adjacent to the site. Although the wintering birds comprise of a number of Red-listed and Amber-listed species, they are only present irregularly and in low numbers. Hence, only small numbers of birds would be impacted. Therefore, impacts are not expected to be significant, and mitigation is not required. |
| **Mitigation and Enhancement Measures (Wintering birds)** |
| • No impacts expected on wintering birds and no specific mitigation measures required. |
| **Breeding birds** |
| • Impacts to breeding birds during construction include habitat loss, 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. At particular risk is meadow pipit which is considered likely to be breeding on site. Removal of the grassland on site to facilitate the development will remove the habitat suitable for this species and is likely to displace the breeding pair. Removal of other habitats on site is likely to disturb or displace other species of breeding birds. During construction, there will be habitat loss, an increase of lighting, noise, and visual disturbance. A temporary increase of such impacts during the breeding season could cause abandonment of some territories or nests. |

| |
|---|
| • 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. However, given the common species in question and the alternative habitats in the surrounding areas, these impacts are not expected to be significant and mitigation, other than checks before vegetation removal, is not required. |
| **Mitigation and Enhancement Measures (Breeding birds)** |
| • Any removal of vegetation should be restricted to non-breeding season. |
| **Marsh Fritillary** |
| • Adult Marsh fritillary butterfly, a vulnerable Annex II-listed species, was recorded flying throughout the site within the semi-improved grassland. The species is likely to breed on site and the larval food plant, devil's-bit scabious is present across the site.<br>• Potential impacts of the construction phase on these butterflies include loss of habitat and potential injury or mortality of larvae which may be present within the grassland. Marsh fritillary larvae hibernate between late September and February or early March and become chrysalises in April/May and emerge as adult butterflies two to three weeks later. During this time, larvae are particularly susceptible to disturbance and habitat destruction. Marsh fritillary is a European protected species and it is an offence to deliberately capture, injure or kill any such species. With the case of this butterfly, these sentiments apply to the species at any stage of its life-cycle whether that be as an egg, larvae, chrysalis or as an adult butterfly. For marsh fritillary butterfly, impacts could be significant at County (medium) geographic scale in the absence of mitigation.<br>• The proposed plant will be decommissioned after 25 years. Effects arising from the process of decommissioning are considered to be a similar nature and duration to those arising from the construction process. A Decommissioning Plan (DEMP) would be prepared and agreed with the relevant authority at that time. |
| **Mitigation and Enhancement Measures (Marsh Fritillary)** |
| • Removal of grassland must be completed following checks for larvae of marsh fritillary between August and September when larval webs on devils bit scabious are conspicuous and before larvae begin to hibernate. A ECoW should advise in this regard. Post construction areas of bare ground not required for the operation of the site, will be allowed to recolonise naturally to form new areas of grassland for butterflies. |
| **Operational Impacts (Table 9.8 of EIAR)** |
| • No operational phase impacts are predicted for habitats on the site, mammals, amphibians, wintering birds, breeding birds, Marsh fritillary or any other protected or notable species.<br>• 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 (EIAR Chapter 7: Air Quality and Climate, Volume I and Appendix 7A, EIAR Volume II). |
| **Cumulative Impacts** |
| • No other plans or projects will act cumulatively with the current project to cause significant environmental impacts. The likelihood of adverse effects on biodiversity is negligible and not significant. |

## 10.5 Residual Impacts

With the implementation of mitigation measures outlined above, residual impacts to semi-natural grassland, protected mammals, breeding birds, amphibians, lizard, march fritillary and other notable species are not significant.

## 10.6 Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 10 of the EIAR, and all of the associated documentation. Without Mitigation, there is potential for adverse impacts during the construction, operation and demolition phases. Likely significant effects include habitat loss for breeding birds, invertebrates and smooth newt, pollution of habitats from contaminated surface-water runoff, noise and visual disturbance to breeding or foraging bird species, artificial lighting and air quality and dust deposition. I have summarised the potential impacts and the proposed mitigation measures in Table 10.1 and will not repeat them here. The primary ecological mitigation requirement comprises the commission of an Ecological Clerk of Works (ECoW) to oversee and advise both contractors and site operators during times of major work within particularly sensitive ecological windows (i.e. breeding bird season, vegetation clearance). I am satisfied that the proposed mitigation and enhancement measures outlined in Table 9.7 & 9.9 of the EIAR and the CEMP, are robust and will ensure the protection of local habitats and biodiversity, including mammals, birds, The Smooth Newt and the Marsh Fritillary Butterfly.

I am satisfied that no significant adverse operational phase impacts as outlined in Table 9.8 of the EIAR are likely to occur in relation to ecological receptors.

## 10.7 Conclusion (Biodiversity)

Having regard to the nature and scale of the proposed OCGT energy facility, the operation of the existing CCGT energy facility within its EPA IE Licence limits, and the existing measures to protect water quality at the discharge points, I am satisfied that the proposed development will not give rise to any significant residual or cumulative impacts with other developments in the surrounding area.

I am satisfied that the proposed development would not have an adverse impact on biodiversity (including habitats and species), subject to compliance with relevant legislation and guidance, implementation of the EIAR and final CEMP mitigation measures, compliance with recommended conditions and adherence to the terms of the EPA IE Licence (as reviewed and/or amended).

## 11.0 Landscape & Visual

### 11.1 Issues Raised

A number of the observers raised concern in relation to the landscape or visual amenity. The concerns raised and the applicants response to them are summarised in Section 4.0 above. These include issues relating to lighting pollution, especially at nighttime, 24-hour lighting and the visual impact of a second power plant.

GCC have reviewed the Photomontage & EIAR Chapter 10 and are satisfied that the development as proposed would not result in undue adverse impacts on the receiving environment.

### 11.2 Context

EIAR Chapter 10 with associated Figures and Appendices, which includes Photomontages (Appendix 10A) has assessed the potential impacts on the landscape and visual amenity during construction, operational and decommissioning phases. The EIAR was informed by desk studies and site appraisals. The EIAR describes the baseline conditions, which is a '*future baseline'* and includes the approved 299MW OCGT Plant on the western portion of the existing Tynagh Power Station site (ABP File Ref 313538). A Zone of Theoretical Visibility (ZTV) map was produced and a study area of 5km radius from the site boundary was selected. It is noted that the study area of 5km defines the area within which potential effects could be significant, rather than defining the extent of visibility, as the site may be visible from further afield. It assesses potential impacts on the landscape and views from within the 5km

study area, and it establishes a 10km ZTV map from the 40m emissions stack within the site.

The GCDP 2022 – 2028 contains a strategic aim *'to protect the landscape categories within the County and avoid negative impact upon the natural environment'.*

## 11.3 Baseline

In the Development Plan, The Landscape Character Assessment defines 4 Landscape Regions, which are then subdivided into 10 Landscape Character Types (LCTs). The site is located within the Eastern Plains Region, in the Landscape Character Assessment of the Development Plan, which is classified as the Central Galway Complex Landscape. This is defined as *'an extensive plain of grasslands comprising medium-to-large fields with low enclosures and many areas of low stone walls*'. The area '*contains the majority of the county's population with associated high levels of rural housing, roads and settlements'*.

This Landscape was determined to be in an area classified as having a 'Low' landscape sensitivity and within an area unlikely to be adversely affected by change.

## 11.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 11.1 below.

| **Table 11.1: Summary of Potential Effects (Landscape & Visual)** |
|---|
| **Do Nothing Scenario** |
| • Not examined in EIAR |
| **Construction Impacts (Section 10.5 of EIAR)** |
| • Works including the upper parts of plant and the proposed 40m high emissions stack will be partially visible from nearby dwellings, the road network and from parts of Tynagh Village to the south-east within 1.8km of the site. More distant views at construction works can be experienced between 1.5km and 3km from the N65 to the north, elevated locations and locations with open view to the north, south and west.<br>• Long distance views from between 3-5km and beyond are not considered significant due to the distance, the scale of the project and the high dependency on clear weather conditions.<br>• Construction effects will result in 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, construction machinery and vehicles, site traffic etc.

- The highest impact during construction will be experienced in the vicinity of the site, from locations with open or partial view of the site.(within a c. 500m radius)
- The landscape and visual effects and their significance at construction stage will be temporary, adverse and range from not significant to slight adverse in the wider study area and from moderate to significant adverse for areas in close proximity, up to approximately 500m radius from the boundary of the site, where intervening existing vegetation and built structures do not screen views of the proposed development.

**Operational Impacts (Section 10.5 of EIAR)**

- Appendix 10A (refer to EIAR Volume II) as well as Figure 10.3 (refer to EIAR Volume III) illustrate viewpoints from locations selected as 'Representative Viewpoints' for the assessment of landscape and visual effects of the proposed development.
- Operational effects will result in likely effects of the development on views and visual amenity such as the potential for the development to alter (beneficial or adverse) the composition of the view from a viewpoint; and likely cumulative effects of the development in conjunction with other committed developments of similar type and scale upon the landscape and visual resource of the study area.

**Landscape Effects (See Table of Landscape Effects – Table 10.12 of EIAR)**

- The main landscape effects will be associated with the introduction of additional industrial buildings and emissions stack associated with the plant, leading to an intensification of the established industrial character of the site and its surroundings. It is considered that the development will not alter the prevailing landscape character within the study area, however the industrial character will intensify further with the introduction of the new power plant.
- Direct and long-term change or modification will occur locally where the development will be physically located, in particular the introduction of additional building infrastructure on an area of land adjacent to the existing Tynagh Power Station site. The magnitude of landscape change is considered high and the resulting significance slight neutral as the site is already industrial in character.
- Indirect change will occur outside of the site boundary, where the visibility of the power plant has an influence on the perception of the character of the landscape. The indirect change in landscape character is greatest in its immediate and close surroundings where open and partial views are possible within approximately 500m radius from the site boundary in views from the north, south and west. 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 magnitude of change in these areas is considered medium. The significance of landscape effects on the landscape character is therefore considered to be moderate adverse.
- Indirect change and the significance of landscape effects will reduce with increasing distance from the site in the remaining study area (between approximately 3km and 5km from the site boundary) to Moderate and Slight Adverse. Given the prominence of the existing 55m emissions stack associated with the existing Tynagh Power Station, the intensification of the industrial character can be recognised over long distances throughout the wider study area in available views.

**Visual Effects (See Summary of Visual Effects – Table 10.13 of EIAR)**

- Visual effects from eight representative viewpoint locations were assessed in the EIAR. (Viewpoint 1 – 8). The main visual receptor groups are local residents, vehicle travellers and pedestrians. The majority of residential dwellings in the immediate area are located mainly to the west in the form of one-off houses.
- The development will add to the existing industrial building complex within the site. Depending on weather conditions, the proposed 40m emissions stack will be visible from elevated locations to the north, beyond 3km. It will introduce another industrial feature, with additional buildings, such as the air intake building becoming more prominent within available views. However, the existing Tynagh CCGT Power Station with its 55m high emissions stack will remain the most prominent industrial feature particularly in views immediately west and southwest of the site boundary (refer to Photomontage 01 – 03, Appendix 10A, EIAR Volume II) as well as in elevated views north and north-east within an area of approximately 3km radius from the site (refer to Photomontage 05). Long distance (up to approximately 5km) views from elevated areas further north will be possible where elevated and open views of the proposed development become available.
- The magnitude of visual effects on local residents and residential areas with views of the proposed development within c. 500m are considered to range from Low to High and with effects ranging between Slight Neutral –Moderate Adverse depending on the openness of views and intervening screening by vegetation, topography or built structures. The highest visual effects will be experienced within c. 500m radius from locations with open or partial views of the proposed emissions stack and sections of the building.
- Views beyond c. 500m will comprise mainly the upper sections of the emission stack and buildings, which will be recognisable but, as for the entire proposed development, it will be seen in conjunction with the existing already prominent Tynagh CCGT Power Station structures including the existing 55m tall emissions stack, as seen in Viewpoint/ Photomontage 03. The magnitude of visual change is considered low - medium and the significance slight neutral - moderate adverse.
- In long distance views ranging between approximately 1km – 3km, particularly from the N65 to the north and Tynagh Village to the south, effects will vary from low to medium and their significance from moderate adverse to slight neutral. While the new power plant will intensify and extend the perceived industrial character within the receiving landscape and become a new feature within the existing view, the change will be additional elements seen in conjunction with the existing prominent elements and will likely be perceived as one development, this can be seen in Viewpoint/ Photomontage 05. The proposed architectural mitigation measures in terms of façade design and colour (as described in Section 10.6) will help integrate the development into its setting. The magnitude of visual effects is considered medium and its significance moderate adverse.

**Decommissioning Impacts**

- The power plant will be decommissioned when it reaches the end of its useful life at some point after 2052. At that time detailed decommissioning procedures will be produced in line with prevailing best practice to ensure that there will be no significant, negative environmental effects from the decommissioning. As a result, additional potential impacts and associated effects arising during the decommissioning phase are not anticipated above and beyond those already assessed during the construction phase.

**Cumulative Impacts**

- Minor impacts may occur in-combination with the existing Tynagh CCGT Power Plant and approved 299MW Power Plant, but none predicted to be significant.

## 11.5 Mitigation

**1. Architectural Design – Colour Scheme -** The principal landscape and visual mitigation measures are inherent in the design of its architecture, with the primary objective to minimise the visual impact of the buildings and structures and allow the building to be unobtrusive against its backdrop, the colours, forms, and textures are also mindful of the surrounding landscape.

**2. Construction Phase -** Visual mitigation measures at construction include the following:

- Minimise external lighting related to construction works; and
- Regular cleaning or public roads to remove any track out and to reduce temporary effects on visual amenity.

**3. Lighting** - Mitigation measures to reduce visual effects in relation to additional lighting include the following:

- Lighting will be minimal and low level and kept to essential locations only, with the position and direction of lighting being designed to minimise intrusion and disturbance to adjacent areas;
- Use of full cut-off lanterns are proposed to minimise light spillage and upward escape of light onto adjacent areas; and
- Lighting (including on stacks and Continuous Emissions Monitoring System (CEMS) platform) monitoring will be turned off where possible when not in use except to meet the minimum requirements for Health and Safety.

## 11.6 Residual Impacts

Given the scale and location of the proposed development, the main landscape and visual mitigation measures focus on architectural mitigation and minimising lighting during night-time. Hence, measures will be implemented immediately

and come into effect following the completion of construction works. The vegetation which currently provides screening to the existing power station and seen within the photomontages will not change from the baseline conditions through the introduction of the proposed development. The existing vegetation, while retained (i.e. it is off site and outside the control of the applicant), will screen the lower parts of the existing and proposed development.

There will be a slight increase in visual effects during the winter season due to the absence of foliage (note montages assess winter views for worst case). The majority of differences in visibility will be experienced locally within c. 500m radius depending on the pruning status of intervening hedgerows (refer to Photomontages 02 for example) as well as the amount of other intervening vegetation.

## 11.7 The Assessment: Direct and Indirect Effects

I have visited the site and its environs including Tynagh Village and have examined the Landscape and Visual Assessment (EIAR, Chapter 10 and accompanying Figures 10.1 – 10.3) and Appendix 10A (Photomontage Booklet).

There is likely temporary adverse Landscape and Visual effects during the construction stage and decommissioning stage because of the visibility of construction activities such as scaffolding, cranes, machinery on site and traffic movements. These effects will be experienced in the vicinity of the site, from locations with open or partial views of the proposed developments (within 500m radius of the site). During construction and decommissioning, any impacts on visual amenity would be localised and of a short-term temporary duration, with no significant adverse impacts anticipated.

There is potential for visual impact during the operational phase associated with the air intake structure and emissions stack (40m high), integrating with the established industrial character of the site and its immediate environs. The development would be located within an existing industrial area, which lies within the former Tynagh Mines and beside the existing Tynagh electricity

power station, which comprises a range of structures of varying heights and designs, including a c. 55m high emissions stack.

I am satisfied the proposed development will not significantly alter the industrial character of the site and its immediate surrounds, which is currently visible due to the prominence of the existing buildings and 55m emissions stack associated with the Tynagh CCGT Power Station. There will be an intensification in the industrial character of the site, which will be visible to local residents, passing traffic and pedestrians. However, the existing CCGT Power Station and its 55m stack will remain the most prominent industrial feature and the new OCGT power plant will likely be perceived as one development. There will be an impact on the landscape character immediately adjacent to the site where open or partial views are possible from the north, south and west (within 500m of site). This impact reduces with increasing distance from the site.

Having reviewed the observations by third parties in relation to light pollution from the 40m chimney stack, I consider the impact of lighting on surrounding receptors will be limited, with lighting of the proposed 40m stack being provided for maintenance access only – it will not be permanently lit.

Chapter 10.6.1 of the EIAR sets out mitigation and enhancement measures to reduce visual effects in relation to additional lighting which will come into effect on completion of construction works. The lighting plan will ensure there is no vertical splits or glare issues to adjoining areas which are not required to be lit. Mitigation measures will be implemented immediately and come into effect following the completion of construction works.

### 11.8 Conclusion (Landscape and Visual)

Having reviewed the observations by third parties in relation to visual impact and lighting pollution, based on the inherent design and the mitigation and enhancement proposed in the EIAR, I am satisfied that the visual impact on the surrounding rural landscape and views towards the site would not have any significant adverse impacts on the landscape or visual amenity.

## 12.0 Noise and Vibration

### 12.1 Issues Raised

A number of the observers raised concern in relation to the potential impact of noise. The concerns raised and the applicant's response to them are summarised in Table 4.1 of this report. Concerns include impact on human health and animal welfare including impact on the nearby horse training and breeding business.

### 12.2 Context

EIAR Chapter 11 with associated Figures (11.1 – 11.4) and Appendices, has assessed the potential impacts on noise and vibration during construction, operational and decommissioning phases. The EIAR describes the methodology used, the baseline conditions, the mitigation measures proposed and any residual impacts following adoption of mitigation measures.

### 12.3 Baseline

The sensitive receptors likely to be most exposed to the noise emissions have been identified and are shown on Figure 11.1 (refer to EIAR Volume III). These receptors are all residential in nature and are the closest receptor positions to the site. A baseline survey was carried out at four locations (M1-M4 located to the north-west, west, south-west and north-east) on the 1st and 2nd July 2021 to determine existing ambient noise levels around the site. The monitoring locations used are shown on Figure 11.1 of the applicants EIAR. The results are presented in Appendix 11A, EIAR Volume II. Receptors R1 to R5 represent the properties closest to the site and therefore are likely to be exposed to the highest noise levels. It follows that if compliant levels are achieved at these locations, compliant levels will be achieved at all other receptor positions.

During the construction phase, no vibration impacts are expected due to the distance to sensitive receptors, the nearest being 260m. During operation, no plant that would generate significant vibration levels is proposed. Hence, vibration has been scoped out of the EIAR. In addition, noise impact of

operational phase traffic has been scoped out due to the small daily traffic flow generation, with 5-10 vehicle movements (or less) expected.

The nearest protected structures are Castletown bridge (RPS 3651) and a thatched cottage (RPS 3648) which are identified and described in EIAR Chapter 8: Cultural Heritage. Castletown Bridge (RPS 3651) located 2.1km to the north of the site is now closed to traffic as the new bridge located 10m to the immediate west carries the main carriageway. Construction and operational traffic will not pass directly over Castletown Bridge so noise and traffic vibration will not affect the protected structure.

The thatched house (RPS 3648) located 400m to the south-west of the site is largely screened by the existing earthen bund which will also mitigate any potential impacts from construction noise. Additionally, construction and operational traffic will not pass this asset. Therefore, no significant construction or operation noise impacts are expected.

## 12.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 12.1 below. Note that Construction and Operational Vibration has been scoped out of consideration.

| **Table 12.1: Summary of Potential Effects (Noise and Vibration)** |
|---|
| **Do Nothing Scenario** |
| • In the absence of the proposed development, the existing acoustic environment is expected to remain unaffected. The area is broadly rural in nature but with noise contributions from the existing Tynagh Power Station and other industrial operators present in proximity to the site. |
| **Construction Impacts** |
| • The applicant and engineering design team anticipate that the noisiest period of construction activity will be during months 8 and 9, when piling and other civil engineering works are taking place. If construction noise levels during this period are demonstrated to be compliant with the nominated criteria, it follows that construction noise levels will be compliant at all other times.<br>• It can be seen from Table 11.9 that predicted construction noise levels for the estimated noisiest period of construction are within the weekday daytime and Saturday morning assessment criteria. No significant adverse effect is therefore expected at residential receptor positions with regards to construction phase noise levels generated by on-site activities.<br>• Construction Traffic **-** Through comparison of Table11.9 and Table 11.10, it can be seen that a negligible impact is predicted on the N65 and a minor impact is predicted on LP4310 Gurtymadden to Tynagh Road. |

| |
|---|
| • No significant adverse effect is therefore expected at residential receptor positions with regards to construction phase traffic noise levels generated by additional traffic flows on existing roads. |
| **Operational Impacts** |
| • The OCGT is a peaking plant that will have the ability to operate 24 hours a day, seven days a week. It is noted, however, that whilst the power plant has the potential to operate in this manner, in reality it is expected to only operate during peak periods for a limited number of hours per year.<br>• A summary of the results of Predicted Operational Noise Levels at Receptors is provided in Table 11.13 and illustrated in Figure 11.3 (refer to EIAR Volume III).<br>• A comparison of Table 11.11 and Table 11.13 indicates that, without additional mitigation, noise emissions from the plant would not comply with the relevant criteria. Mitigation measures are detailed in Section 11.6 of the EIAR. |
| **Decommissioning Impacts** |
| • Effects arising from the process of decommissioning are likely to be of a similar or lesser nature and duration to those arising from the construction process. This is because similar processes will be employed, except for piling activities which are not required. |
| **Cumulative Impacts** |
| • Cumulative Impacts of the proposed development and the approved 299MW Power Station have been assessed in the EIAR. No significant cumulative adverse impacts are expected at residential receptors with regards to construction activities including construction phase traffic. The operation of the proposed development is expected to coincide, at times, with the operation of Sperrin Galvanisers, and the approved 299MW OCGT Power Plant. No cumulative operational phase noise effects have been identified. |

## 12.5 Mitigation and Enhancement Measures (Section 11.6 of EIAR)

Mitigation requirements for potential impacts will be implemented as follows:

### 12.5.1 Construction Phase

No significant adverse effects are predicted during the construction phase. Nonetheless, to ensure noise and vibration levels are kept to a minimum and to reduce the risk of cumulative impacts, recommended mitigation measures are proposed to be adopted during the construction phase. These are listed in Section 11.6.1 of the EIAR and include measures such as good community relations, standard construction working hours, selection of quiet and low vibration equipment, fixed and semi-fixed ancillary plant such as generators, compressors and pumps located away from receptor locations wherever possible.

Proposed noise and vibration mitigation measures are incorporated into the Outline Construction Environmental Management Plan (oCEMP) (EIAR Volume II Appendix 5A), which will form the basis of the final CEMP. The CEMP will be implemented by the Contractor, who is yet to be appointed.

### 12.5.2 Operational Phase

Noise emissions from the proposed development would, without design mitigation, exceed the nominated criteria at all receptor locations. An investigation was carried out to determine noise mitigation measures that can be incorporated into the design. These investigations included consultation with equipment suppliers to ensure the measures and reductions presented are technically achievable. In addition, a 7.0m high acoustic barrier around the fin fan cooler, a 8.0m high acoustic barrier around the transformers, and a 10.0m high barrier around the generator, turbine, diffuser and stack base, have been incorporated into the design. The barriers are shown in Chapter 5: The Proposed Development Figures (refer to EIAR Volume III).

The 3D noise model was rerun including the above mitigation measures (i.e. including the sound power level reductions and acoustic barriers). A Noise Map is presented in Figure 11.4 of this EIAR (refer to EIAR Volume III) showing predicted noise contours across and in the vicinity of the site. A summary of the results is given in Table 11.15.

A comparison of Table 11.11 and Table 11.15 indicates that, with mitigation, noise levels from the proposed development comply with the relevant criteria.

## 12.6 Residual Effects

Residual Impacts are not considered to be significant for both construction and operational phases following mitigation measures as outlined above.

## 12.7 Assessment: Direct and Indirect Effects

There is potential for minor disturbance during the construction, operational and decommissioning phases. The noisiest period of construction activity will be during months 8 and 9, when piling and other civil engineering works are taking

place. No significant adverse impact is expected at residential receptor positions with regards to construction phase noise levels generated by on-site activities.

Operational noise emissions from the proposed development without design mitigation would exceed the nominated criteria at all receptor locations. I note the third-party concerns in relation to human and animal welfare. Mitigation measures include less noisy operational plant and specific design features including a 7m high acoustic barrier around the fin fan cooler, an 8m high acoustic barrier around the transformers and a 10m high barrier around the generator, turbine, diffuser and stack base. With mitigation, noise levels from the proposed development comply with the relevant criteria.

I also note the noise issues that have occurred on the site, specifically in relation to the explosion of noise from a high-pressure steam pipe blowout. It was confirmed by the applicant this the pipe blowout was recorded with the EPA and that it is not a possibility for the new OCGT as it will not be part of the technology used.

Mitigation and enhancement measures for the construction phase are outlined in Section 11.6.1 of the EIAR to ensure noise and vibration levels are kept to a minimum. These measures have been incorporated into the oCEMP.

The LP4310 Gurtymadden to Tynagh Road and the N65 east and west of LP4310 will be used by construction traffic to reach the site. No significant adverse effect is expected at residential receptor positions with regards to construction traffic noise levels generated by additional traffic flows on existing roads.

I am satisfied that due to the distance from the site, no significant construction or operational vibration impacts are expected on the historic assets, including the nearest protected structures Castletown bridge (RPS 3651) and a thatched cottage (RPS 3648).

Furthermore, noise will be monitored as part of the EPA Industrial Emissions Licence, which are subject to fixed permitted limits. I am satisfied that with mitigation, noise levels from the proposed development will comply with the relevant criteria.

### 12.8 Conclusion (Noise and Vibration)

Having examined the EIAR noise and vibration modelling, which have been carried out in line with relevant guidance, I am satisfied that the models and resultant conclusions are robust. Sound emissions from the proposed development would, without design mitigation, exceed the nominated criteria at all receptor locations. I am satisfied that the mitigation measures proposed including the procurement of appropriate plant and the provision of acoustic barriers will ensure that operational noise levels would be below the relevant assessment criteria at all sensitive receptors. Having reviewed the submissions made in relation to noise and vibration, I am satisfied that adverse noise and vibration effects during all phases of the development have been adequately addressed and that the impact of noise and vibration will not be significant due to the substantial separation distances to the nearest residential properties and the mitigation measures proposed in the EIAR.

## 13.0 Water Environment

### 13.1 Issues Raised

A number of observers raised concerns in relation to potential impacts on the water environment, including potential impacts resulting from disturbance to and release of historic heavy metal pollutants and potential contamination of waterways.

Elected Members raised concerns in relation to dangerous substances and impact on local residences and the need for monitoring of the development during construction and operation, with robust conditions attached to any grant of permission.

The environment section of GCC expressed concern in relation to potential impacts associated with historically contaminated soil on site and highlights that any works on site be properly managed to ensure that all mitigation measures and monitoring proposals are fully implemented. (See Section 4.0 above)

## 13.2 Context

EIAR Chapter 12 with associated Figures (12.1 – 12.3) and Appendices (including Flood Risk Assessment), has assessed the potential impacts on the water environment and flood risk during the construction, operational and decommissioning phases. The EIAR describes the methodology used, the baseline conditions and the mitigation and enhancement measures proposed. The assessment was based on desk studies, site surveys and monitoring.

## 13.3 Baseline

Surface water and sediment within the area have been impacted by the historic use of the site for mining. The status of the river sub-basin is assessed under the Water Framework Directive (WFD) as 'Poor'. Due to previous mining activities, the sensitivity of the surface water environment to contamination is considered to be medium and based on groundwater vulnerability, its sensitivity is considered to be high.

In relation to surface waters, the site is located within the Lisduff (Kilcrow)-020 WFD Sub-basin (IE_SH_25L060400) of the Lower Shannon WFD surface water catchment. The location also falls within the historic Mine (Tynagh) WFD groundwater body (European Code IE_SH_G_237). Groundwater in the area has elevated concentrations of heavy metals as a result of the extensive mineralisation of the limestone bedrock in the vicinity of the site.

A number of streams are located in the area. Lisduff Stream is located c. 515m south of the site, with the Cloonprask / Barnacullia Stream 13m east and the Mill Stream 250m north of the site. These three watercourses flow east into the Lisduff (Kilcrow) watercourse and ultimately flow south to Lough Derg into the River Shannon (11.1km).

The former Tynagh Mine open pit mine has been allowed to re-flood and is an enclosed open water body (code 25_303) located c. 280m southeast of the site. The former Tynagh Mine tailings ponds remain and form open water bodies (code 25_300) located c. 40m to the east of the site.

There is one surface water feature within the site boundary, which is a small c.12sqm pond which supports a population of protected amphibians.

The Lucan and Waulsortian Limestone fractured bedrock units are classified as Locally Important Aquifers, but which are productive only in local zones. The Old Red Sandstone is classified as a poor bedrock aquifer. Shallow groundwater was encountered at depths ranging from 1.5m to 3.0m below ground in shallow wells associated with the construction of the Tynagh Power Station, which abstracts and treats groundwater from an on-site well (c. 300m3/day). Groundwater vulnerability is classified as 'High' to 'Extreme'.

## 13.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 13.1 below.

| **Table 13.1: Summary of Potential Effects (Water Environment) See Section 12.5 of EIAR** |
|---|
| **Do Nothing Scenario** |
| • Under a 'do-nothing' scenario, there would be no anticipated changes to the water environment. |
| **Construction Impacts** |
| • See section 12.5 of EIAR for full details of impacts which could occur to the water environment in the absence of mitigation including impacts on water quality due to deposition or spillages, dewatering of excavations leading to increase discharges from site of potentially contaminated construction runoff, increased risk of ground water flooding or recharging due to ground excavations and alteration in fluvial and overland flow paths as a result of works associated with the proposed development. |
| **Operational Impacts** |
| • See section 12.5.10 of EIAR for full details.<br>• Operational phase impacts that may occur in the absence of mitigation include impacts on receiving waterbodies from pollutants in surface water runoff, impacts on hydromorphology associated with any new drainage outfalls or other structures that may be installed or removed, potential nutrient enrichment/acidification of waterbodies located adjacent to the site from atmospheric deposition of pollutants emitted from the generation equipment, potential increase in volume and rate of surface water runoff from new impervious areas, leading to an impact on flood risk, upstream and downstream of the site. |
| **Decommissioning Impacts** |
| • Temporary impacts on surface and groundwater quality due to deposition or spillage of soils, sediments, oils, fuels or other construction chemicals used in the decommissioning process, or through mobilisation of contamination following disturbance of contaminants in sediments, ground or groundwater, or through uncontrolled site run-off. |
| **Cumulative Impacts** |

- No significant cumulative impacts predicted with existing plans and projects within the area. (Section 12.8 of EIAR)

## 13.5 Mitigation

Mitigation and enhancement measures are described in Section 12.6 of the EIAR as follows;

### 13.5.1 Construction Phase

These measures have either been incorporated into the design or are standard construction or operational practices which will be included in the proposals. An oCEMP framing the parameters for the Final CEMP is provided in Appendix 5A (refer to EIAR Volume II). This includes the requirement for monitoring of surface water features before, during and after works. A final CEMP will be prepared by the contractor which will be followed (as is standard procedure) during the construction phase and will describe the principles for the protection of the water environment.

In relation to Flood Risk, the contractor will monitor weather forecasts and plan works accordingly. In addition, the contractor will sign up to weather warning alerts and describe in the Emergency Response Plan the actions it will take in the event of a possible flood event.

### 13.5.2 Operational Phase

Surface water drainage will tie into the existing system at the Tynagh Power Station. A drainage system with attenuation system will collect surface water before discharging it into the former open pit mine to the south of the site through the existing outfall. Surface water run-off will be routed via oil and silt interceptors into the attenuation tank, to provide additional treatment prior to being pumped to the existing treatment plant on the existing Tynagh Power Station site. The final discharge to the former open pit mine will utilise the existing outfall, and so no new structures are required. The final discharge will be required to adhere to conditions described within the IEL for the site.

An IEL will be applied for to cover the operations of the proposed development. The OCGT power plant will be required to comply with the requirements of the

European Union (Large Combustion Plants) Regulations 2012 S. I. No. 566 of 2012 under the IEL, 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. The site will be operated in line with appropriate standards and the operator will implement and maintain an Environment Management System (EMS) which will be certified to International Standards Organisation (IS) 14001. The EMS will establish the requirements and procedures required to ensure that the site is operating to the appropriate standard. Sampling and analysis of pollutants will be carried out where required.

## 13.6 Residual Effects

The residual effects are summarised in Table 12.3 of the EIAR. No significant residual effects have been identified to the water environment or flood risk given the implementation of the mitigation measures described within this chapter and Appendix 12A Flood Risk and Drainage Assessment (refer to EIAR Volume II).

## 13.7 Assessment: Direct and Indirect Effects

The main elements of the project with the potential to affect the water environment during the construction, operational and decommissioning phases include the site preparation and construction works, wastewater treatment and associated site drainage arrangements. In the absence of mitigation measures, indirect impacts from contamination of groundwater and surface water during construction were identified which include spillages, contaminated and sediment laden site runoff, groundwater flooding and changes to overland flow. The oCEMP has detailed the mitigation measures to be employed before, during and after development works to mitigate any potential adverse effects. The EIAR did not predict any significant adverse impacts during the construction, operational or decommissioning phases subject to the implementation of the EIAR and final CEMP mitigation measures and compliance with the EPA IE Licence requirements for the facility (as reviewed and/or amended).

The applicant in their response to the concerns raised by third parties in relation to historical contaminated land and ground disturbance has pointed out that comprehensive site investigations were undertaken and are detailed in Appendix 13A (Ground Investigation Report) and Appendix 13B (Generic Quantitative Risk Assessment Report) of the EIAR and that the existing ground conditions are therefore understood and have informed the design of the development. Development will be constructed in accordance with current engineering standards and no excavation material will be exported off site. During operation, the development will follow the conditions of its IE Licence (to be applied for in due course).

Water quality monitoring will be undertaken at all stages of the development. A CEMP will be prepared by the contractor to be approved by the Planning Authority, which will detail the measures necessary to prevent adverse effects on the local surface and groundwater environment. This will be monitored before, during and after the works. The applicant is committed to ongoing community consultation and liaison throughout the construction period. (See Appendix 5A of the EIAR).

The site comprises predominantly brownfield land adjacent to and on the existing Tynagh Power Station site. The site is not located in a fluvial floodplain and groundwater flooding is considered unlikely based on topography, groundwater depths and flow direction.

It is noted that the site contains a small pond which is inhabited by the nationally protected Smooth Newt. A detailed list of mitigation measures are included in the accompanying oCEMP to protect the Newt population. If mitigation measures outlined in the EIAR and final CEMP are adhered to, I am satisfied that the smooth Newt population will be protected. (See Section 10.0 Biodiversity above for further detail).

The site is hydrologically connected to Lough Derg (SAC & SPA), c. 11km to the south. Refer to section 10.0 of this report for more detailed assessment of biodiversity impacts and section 22.0 of this report which provides an Appropriate Assessment Screening for European sites, screening out any potential adverse impact on any protected European site.

During the construction phase, water pollution could potentially occur directly from spillages of polluting substances into waterbodies, or indirectly in runoff from hard standing, other sealed surfaces or from construction machinery. Fine sediment may also be distributed into waterbodies directly or also wash off working areas and hard standing (including roads) into waterbodies indirectly via existing drainage systems or overland. This sediment may potentially contain heavy metals or other contaminants. Having reviewed the Mitigation and Enhancement Measures contained in Section 12.6 of the EIAR, I am satisfied that there would be no significant adverse impacts subject to compliance with relevant legislation, implementation of the EIAR and final CEMP mitigation measures and compliance with the EPA IE Licence requirements for the facility (as reviewed and/or amended) and compliance with recommended conditions.

During the operational phase**,** there is potential for pollution of surface watercourses, surface water runoff and accidental spillages. The surface water drainage will tie into the existing system at the Tynagh Power Station. Surface water run-off will be routed via oil and silt interceptors into the attenuation tank and then discharge to the former open pit mine using the existing outfall, so no new structures are required. To ensure longevity in performance, the existing Tynagh Power Station wastewater treatment system will be replaced. The Planning Authority raised a query in relation to the adequacy of the percolation in this area. The development will not lead to an increase in staff and therefore there will be no additional foul water generated and as a result there will be no requirement for increased foul water management at the site over and above existing capabilities. Having reviewed the EIAR and submitted percolation tests, I am satisfied that the existing and upgraded wastewater treatment and surface water drainage arrangements would adequately deal with any risks to water quality.

The power plant will be regulated and monitored by an EPA IE Licence. I am satisfied that there would be no significant adverse impacts on water quality or Water Framework Directive status for the nearby or downstream waterbodies during the construction, operational and decommissioning phases subject to compliance with relevant legislation, implementation of the EIAR and final

CEMP mitigation measures and compliance with the EPA IE Licence requirements for the facility has reviewed and/or amended) and compliance with recommended conditions.

**Flood Risk** - In the Galway County Council Strategic Flood Risk Assessment (SFRA) which forms part of the Development Plan, the site lies in Flood Zone C. The Flood Risk Drainage Assessment report contained in the EIAR (Appendix 12A) confirms that the site is not in the fluvial flood zone of Kilcrow River or near the vicinity of any other river or watercourse, including the Shannon River located c. 17km to the east of the site. The report also confirms that the site would be at a very low risk from groundwater flooding. I note third parties concerns regarding potential flooding. Surface water runoff will be routed to the existing surface water drainage infrastructure of the CCGT Power Station and will be discharged at the greenfield runoff rate to the former enclosed mine lagoon under conditions of an IE licence, hence, there will be a negligible impact on surface water flooding. The EIAR confirmed that there will be no increase in upstream or downstream flood risk.

The applicant responded to the third-party concern regarding flooding stating that mitigation measures have been implemented since previous historical floods at the Tynagh Power Station site to overcome flooding from prolonged periods of rainfall.

I am satisfied that the proposed development would not give rise to or contribute to a risk of flooding.

### 13.8 Conclusion (Water Environment)

I have considered the observations made in relation to the water environment and am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise on the Water Environment.

## 14.0 Soils and Geology

### 14.1 Issues Raised

The Planning Authority requested further detail on excavations of soil on the northern portion of the site with both existing and proposed levels demonstrated and confirmation of what will happen with the excavated soil. In addition, the Planning Authority requested that details of imported soils should be assessed including justification for the quantity, source etc.

A number of observers and Elected Members raised concerns in relation to potential impacts on the water environment, including potential impacts resulting from disturbance to and release of historic heavy metal pollutants and potential contamination of waterways and dust monitoring.

Third parties raised concern about the stability of the land above the mine to hold the weight of the proposed development. Original power station began to sink following construction as it was built on an old mine with numerous tunnels under the site.

### 14.2 Context

EIAR Chapter 13 with associated Figures (13.1 – 13.4) and Appendices (including Ground Investigation Report and Risk Assessment), has assessed the potential impacts from the development on Soil and Geology during the construction, operational and decommissioning phases. The EIAR describes the legislative and policy framework, methodology used, the baseline ground conditions, the predicted impacts and the mitigation and enhancement measures proposed. The assessment was based on desk studies and site surveys.

### 14.3 Baseline

The site lies fully within the boundary of the former Tynagh Mine site, which is a County Geological Site (CGS) (Site Code: GUY133). The southern portion of the site is relatively flat and slopes eastwards from 66.5m AOD in the west

to 62.5m AOD in the east. The northern extent of the site consists of a mound of mining soil to height of 72m AOD, on top of which are foundations of a number of previous structures. This 10m high mound is comprised of spoil material and demolition waste material, which is believed to have originated from the previous Tynagh mine working buildings and structures. The EIAR confirms the mound appears to be stable with no indication of slope failure. Based on Teagasc maps, all of the development site and works is located on existing made ground, while the study area of c. 1km is underlain by till derived chiefly from limestone, with alluvium to the north and north-east. Mining spoil waste from the former historic Tynagh mine operations, which are contaminated by heavy metals from the former mining activities are found within the development site. No works are proposed on agricultural/greenfield lands. Under Teagasc soil classification the GSI subsoil classification is 'Urban' across the entire former mine site. No historic mine shafts or mines are located within the site.

The construction phase, which will take between 18 – 24 months, would comprise excavation works involving below ground elements including foundations for the proposed OCGT, development of AGI, fire water storage tank, underground cabling and surface drainage to join into existing and above ground works including raising of site levels, building construction etc.

## 14.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 14.1 below;

| **Table 14.1: Summary of Potential Effects (Soils & Geology)** |
|---|
| **Do Nothing Scenario (See Ch 13.5.1 of EIAR)** |
| • In the absence of the proposed development, no significant changes to soil and geological resource receptors, and indirectly to surface water, groundwater, and human health receptors, are likely to occur under the current regime (operation of the existing Tynagh Power station to the south of the site). The potential scientific value of the study area (in terms of geological exposures) would continue unchanged. |
| **Construction (See Ch 13.5 of EIAR)** |
| • Potential impacts identified from the construction phase without mitigation include impacts to soil structure, soil chemistry as a result of spillages of oils, fuels etc., impacts on surface and groundwater water quality due to deposition or spillage of soils or through uncontrolled site run-off, potential increase in volume and rate to surface water runoff from new impervious |

| |
|---|
| areas during construction leading to flood risk, increased risk of groundwater flooding or recharge from below ground excavations, alteration in fluvial and overland flow paths, temporary impacts on off-site receptors, such as urban/industrial land users, residents and construction workers through the inhalation of contaminated dust and dermal contact with contamination soil following ground disturbance. |
| **Operational Impacts (See Ch 13.5 of EIAR)** |
| • During the operational phase, the following likely predicted impacts on soils and geology receptors are likely to occur, without the proposed mitigation: Impacts on soil chemistry as a result of accidental spillages or leakages from stored backup fuel (distillate fuel or Hydrotreated Vegetable Oil (HVO)) into the subsurface.<br>• Impacts on surface and groundwater quality through the migration of introduced contamination as a result of accidental spillages or leakages from the underground pipework and/ or locally stored distillate fuel into surface and groundwater receptors; and<br>• Impacts on groundwater quality as a result of the removal/ treatment/ mitigation of encountered contamination. |
| **Decommissioning Impacts (See Ch 13.5.14 of EIAR)** |
| • The predicted impacts are anticipated to be similar to those likely to occur during the construction phase with the exception of the impacts relating to unidentified contamination. The likely predicted impacts are as follows without the proposed mitigation: Temporary impacts of soil structure due to soil stripping, smearing and compaction; Temporary impacts on soil chemistry as a result of spillages of oils, fuels, or other construction chemicals, or through the mobilisation of contamination following ground disturbance; and Temporary impacts on surface and groundwater quality through the migration of introduced contaminants as a result of spillages. |
| **Cumulative Impacts (See Ch 13.8 of EIAR)** |
| • No predicted cumulative impacts to soils or geology at the site and surrounding area at either the construction or operational phase. See Table 13.9 of EIAR (Assessment of Significant Residual Effects) |

## 14.5 Mitigation

Mitigation and enhancement measures associated with both the construction and operational phases have been embedded within the design

An oCEMP is provided in Appendix 5A (refer to EIAR Volume II). A final CEMP will be prepared by the contractor to reduce potential environmental impact. The final CEMP will detail the measures necessary to avoid, prevent and reduce adverse effects where possible upon soil and geological receptors.

To minimise the potential for adverse impacts to soil chemistry and to water quality during construction, mitigation measures are outlined in the EIAR (see EIAR Appendix 5A and Chapter 12: Water Environment).

Water quality monitoring will be undertaken post-construction, details of which will be included in the IE Licence. This will be based on a combination of visual observations, in-situ testing using handheld water quality probes, and periodic sampling for laboratory analysis.

## 14.6 Residual Effects

No significant residual impacts are predicted. (See Ch. 13.7 of EIAR)

## 14.7 Assessment: Direct and Indirect Effects (Soils and Geology)

Predicted construction phase impacts without mitigation include temporary impacts on soil structure and soil chemistry following ground disturbance and possible spillages. The works involve the excavation and removal of made ground as well as underlying soil and subsoil during the construction phase. This could give rise to the unmitigated release and mobilisation of contaminated sediments, along with accidental spills or leakage of hydrocarbons from works vehicles. Spillages could pollute nearby surface watercourses or underlying aquifers if their use or removal is not carefully controlled. In addition, there could be impacts on surface and groundwater due to movement of soils following disturbance of contaminated ground or through uncontrolled run-off and potential flood risks of surface and ground water. The EIAR has confirmed that no excavated material will be brought off site.

Operational phase impacts without mitigation would include impacts on soil chemistry and surface and groundwater as a result of accidental spillages or leakages from stored backup fuel into the subsurface, impact on groundwater quality as a result of the removal/treatment or mitigation of encountered contamination.

Further to the queries raised by the planning authority in relation to excavations on the northern portion of the site with both existing and proposed levels demonstrated and confirmation of what will happen with the excavated soil and details of imported soils, the applicant has confirmed that a partial cut into the existing 7m high bank (65m AOC to a height of 72m AOD) for the section in question at the north-western part of the site. The western and northern

sections of the bank will remain unchanged and the cut into the earth bank will be required primarily to accommodate and provide screening to the secondary fuel storage tank and bund and associated fuel off-loading facility and vehicle circulation (at a formation level of 67.5 AOD). I consider that further detail in relation to cut and fill can be dealt as part of the final CEMP by way of condition. It was confirmed by the applicant that the imported soil will not be imported soil material but engineered fill. It is intended to raise ground levels using clean imported fill (crushed aggregate 21,000m3 of imported material) in the south-eastern portion of the site. The volume of fill has been calculated from a volumetric assessment undertaken between the existing site levels and the proposed development formation level of 67.5 AOD, which is required to achieve elevations similar to the existing Tynagh Power Station. I am satisfied that the import of clean fill material to raise the levels of the ground will break any potential direct human contact pathway with subsoils containing elevated heavy metals.

Land within the site is 'Made Ground' derived from the former and current industrial land use and is not used for agricultural purposes. Construction phase activities such as earthworks, excavations, site preparation, levelling and grading operations result in the disturbance of potentially contaminated soils. In relation to third-party concerns concerning impact of disturbing contaminated soils on the water environment, I am satisfied that potential construction phase risks from elevated metals in the soils will be managed through the implementation of the mitigation and enhancement measures outlined in the EIAR, the implementation of the oCEMP which will form the basis for the Final CEMP (to include a Waste Management Plan (WMP), a Construction Traffic Management Plan (CTMP) and a Dust Management Plan (DMP), the IE Licence, standard construction and operational practices and compliance with recommended planning conditions relating to the construction works. I consider the construction works should be subject to a series of site-specific risk assessments, method statements and environmental oversight in line with current guidance, which could be incorporated in the final CEMP by way of a planning condition.

In relation to third party concerns regarding ground stability and potentially old mine tunnels under the site, the applicant has responded by stating that a Soils & Geology Impact Assessment was carried out as part of the EIAR (See Chapter 13). The ground conditions are fully understood and have informed the siting and layout of the proposed development. Figure 13.4 in Volume 3 of the EIAR shows that the OCGT power plant will not sit on historic mine shafts and tunnels. I am satisfied that a robust assessment of ground conditions has been undertaken and that there is no issue in relation to ground stability as the proposed construction will not sit on historic mine shafts or tunnels.

For the operational phase, the proposed development will follow the standards set out in the IE Directive (IED) under its IE Licence. Potential impacts relate to accidental spills and leakages to soil from fuel storage areas, which would be managed by EIAR mitigation measures. I am satisfied that this will limit and minimise any significant impacts relating to soil, surface and groundwater. I am satisfied that any adverse impacts at decommissioning phase will be mitigated, if carried out in accordance with the IE Licence Decommissioning Plan which will be agreed with the EPA.

### 14.8 Conclusion (Soils and Geology)

I have considered the written submissions made in relation to the soils and geology environment and I have considered the applicants assessment, which in my opinion has identified the relevant issues in relation to Soils and Geology. Following the implementation of mitigation and compliance with the IE Licence and final CEMP, I consider that no significant adverse effects are likely to arise.

## 15.0 Traffic

### 15.1 Issues Raised

Transport Infrastructure Ireland (TII) requested further detail on proposed haul routes and details in relation to abnormal weight loads.

Third parties raised concerns about an increase in traffic due to the development.

## 15.2 Context

EIAR Chapter 14 with associated Figures (14.1 – 14.3) and Appendices 14A – 14H (including a Road Pavement Assessment, Falling Weight Deflectometer (FWD) Traffic Surveys, Autotracking, CTMP, Bridge Condition Survey, Project Overlap) has assessed the traffic and transportation impacts. The EIAR describes the methodology used, the regulatory and policy framework, the existing traffic conditions, the additional traffic generated and the impact on the surrounding road network.

## 15.3 Baseline

To inform the EIAR, Traffic surveys were carried out within the study area, including Junction Turning Counts surveys and Automatic Traffic Count Surveys. The EIAR notes that traffic surveys may not show typical flows due to COVID-19 pandemic, hence historic traffic data was collected and compared to ensure a robust and accurate traffic count.

The roads that are predicted to have the highest impacts resulting from the proposals are the LP4310 Gurtymadden (note – some public documents refer to this road as Gortymadden) to Tynagh Road; and the N65.

During Construction all HGV's and staff 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.

A visual pavement (road surface) assessment was carried out on LP4310 Tynagh Road to identify the current state of the local road network. A Bridge Condition survey was undertaken on 8th February 2022 of bridges along the L4310 road between the site entrance (onto the L4310) and the junction of the L4310 and the N65 national secondary road (Gurtymadden Cross).

## 15.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 15.1 below.

| Table 15.1: Summary of Potential Effects (Traffic) |
|---|
| **Do Nothing Scenario** |
| • Without the proposed development, as there are no significant committed developments within the area, even with high traffic growth, the traffic flows remain low and well within the design link capacities, as shown in Table 14.9 of the EIAR. |
| **Construction Impacts** |
| • The construction phase of the development is expected to take between 18-24 months. The development programme will be in the following phases commencing with Site Surveys and delivery of inert fill – Months 1-5; Design update – Months 1-8; Civil works and delivery of equipment – Months 6-14; Installation of mechanical equipment – Months 12-18; and Testing and commissioning – Months 18-22.<br>• Peak HGV traffic will be during Months 1-3. During these months a maximum of 39 HGVS will arrive to the site each day (78 two-way trips). This includes trips associated with equipment/goods delivery and also trips associated with the delivery of 21,000t of fill.<br>• All HGVs will be directed to only use the section of LP4310 Tynagh Road north of the site to travel to/ from the site.<br>• The impact of the traffic will be temporary/ time limited. Therefore, for this development temporary mitigation measures are proposed, i.e., the installation of temporary convex mirrors and construction traffic warning signs at site entrance junction. These would aid visibility and encourage driver awareness of the presence of construction vehicles at the junction.<br>• The road capacity assessment set out in Table 14.16 of the EIAR assesses the proposed AADT against the road capacity for both N65 and LP4310 Tynagh Road. This daily traffic therefore considers both staff and HGV traffic. As shown in Table 14.17 of the EIAR, LP4310 Tynagh Road operates with ample spare capacity even in a worst-case scenario where all staff and HGV traffic is on the network during peak periods. It should be reminded that this scenario is very worst case and will never happen.<br>• To account for the potential for an outage during the construction phase of the development, the combined construction traffic and outage traffic has been assessed against the road capacity. This is set out in Table 14.18 of the EIAR. The results of this assessment in Table 14.18 show that traffic remains within the road capacity even with the addition of outage traffic.<br>• It is considered that there will be three abnormal loads arriving to the site during the construction phase. Two of these deliveries are expected to arrive in Month 14, with the third scheduled to arrive during Month 15. For abnormal traffic loads, a special permit must be applied for. The contractor will undertake a detailed review of the routes prior to construction. |
| **Operational Impacts (Ch 14.5.69 of EIAR)** |
| • The potential impacts associated with the operational phase 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.<br>• Emergency situations may occur during the operational phase, i.e., in the exceptional event of a loss of pressure in the gas transmission system when other generation sources on the transmission grid cannot meet demand. In these scenarios, 60 no. vehicles would deliver back up fuel to the site. However, it is to be noted that this is an unlikely occurrence and will therefore not happen frequently. |

| |
|---|
| **Decommissioning Impacts** |
| • Full details of the decommissioning works would be presented in a Decommissioning Plan be produced and agreed with EPA as part of the IEL and site surrender process at the end of the design life.<br>• Effects arising from the process of decommissioning are considered to be of a similar nature and duration to those arising from the construction process and therefore decommissioning has not been considered separately. |
| **Cumulative Impacts (Ch 14.8 of EIAR)** |
| • The results of the assessment showed that traffic remains within road capacity and therefore no significant cumulative impact is expected. |

## 15.5 Mitigation

The following mitigation and enhancement measures have been discussed in Ch 14.6 of the EIAR;

**Pavement Assessment** - Tynagh Road, north of the site access, forms part of the haulage route for HGVs travelling to and from the site. As this is a local road, it is built to allow for HGV travel, however, not in large volumes. A pavement assessment (visual and FWD assessment) was therefore completed along this road between the N65/ Gurtymadden crossroads and the site access. The results of the Pavement Assessment are set out in Appendix 14A and Appendix 14F, EIAR Vol II.

**A Bridge Condition Survey** - Was completed on bridges along the L4310 road between the site entrance (onto the L4310) and the junction of the L4310 and the N65 national secondary road (Gurtymadden Cross). The results of the Bridge Condition Assessment are set out in Appendix 14G, EIAR Vol II.

**Construction Traffic Management Plan (CTMP) –** A final (CTMP) will be prepared to ensure work activities in, near, or having impact upon the public highway, are undertaken safely and with minimal impact on traffic movement and existing infrastructure throughout the works programme. The final CTMP will be provided by the contractors once appointed. An outline CTMP is included in Appendix 14E (EIAR Vol II).

## 15.6 Residual Effects (See Ch 14.7 of EIAR)

The short-term increase in traffic is considered insignificant and is therefore likely to result in minimal residual environmental effects in terms of temporary construction traffic. No residual effects identified for the operational phase.

## 15.7 Assessment: Direct and Indirect Effects

The road traffic assessment was based on the worst-case scenario, and I am satisfied that the assessment is robust. I note the third parties concern regarding increased levels of traffic on the local roads. There is potential for minor localised impacts on the road network and traffic safety during construction and decommissioning phases. The construction phase is expected to take between 18-24 months in duration, with peak HGV traffic of 78 two-way trips expected during Months 1-3. The link capacity assessment verified that LP4310 Tynagh Road will continue to operate with ample space capacity during peak periods.

The potential impacts associated with the operational phase are not considered significant on any typical day with between 5 – 10 LGV arrival trips per day or less predicted. In the event of an emergency, up to 60 no. vehicles would deliver back-up fuel to the site. It is noted that this is an unlikely occurrence and would occur infrequently.

The national, regional and local road network has sufficient capacity to cater for this increase in traffic volumes for all phases of the development. I am satisfied that the additional traffic movements for all stages of development will not give rise to any significant traffic hazards or disruptions along any of the roads or main junctions. I am satisfied that there will be no significant adverse impacts in relation to traffic during the operational phase due to the small daily traffic flow generation (5-10 LGV trips).

I note TIIs request for further detail on proposed haul routes and details in relation to abnormal weight loads. Tynagh Road, north of the site access, forms part of the haulage route for HGVs travelling to and from the site. As this is a local road, it is built to allow for HGV travel, however, not in large volumes. A Pavement Assessment and Bridge Condition Survey was completed along this

road between the N65/ Gurtymadden crossroads and the site access. These assessments allow for the road surface and bridges to be assessed and acts as a baseline for monitoring changes as a result of the proposed development.

I consider that significant adverse impacts relating to the construction and decommissioning stages can be minimised by conditioning the preparation of a CTMP and conditioning the reinstatement of impacted road surfaces or bridges due to the proposed works.

### 15.8 Conclusion (Traffic)

I have considered the written submissions made in relation to traffic and am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise, subject to compliance with relevant legislation and guidance, implementation of the EIAR and final CTMP mitigation measures and monitoring and compliance with recommended conditions. The proposed development will not give rise to any significant residual or cumulative impacts with other developments in the surrounding area.

## 16.0 Land Use

### 16.1 Issues Raised

No specific issues raised in relation to Land Use.

### 16.2 Context

EIAR Chapter 15 with associated Figure 15.1 has assessed the Land Use impacts. The EIAR describes the regulatory and policy framework, the methodology used, the principal issues considered including planning policy land use zonings, identification of private property and housing, community land use, industry and business, relevant planning applications, loss or severance of agricultural land and relevant consultation responses.

## 16.3 Baseline

The site is located on lands bordered to the north and east by the former Tynagh Mine and to the immediate south by the existing Tynagh Power Station. Sperrin Galvanisers Ltd., an IPPC licensed facility, is located adjacent to the southwestern corner of the site boundary. The site sits in a predominantly pastureland agricultural landscape with poorly developed hedgerows, stone walls, and undulating terrain. The area is undeveloped apart from the existing Tynagh Power Station which consists of power station buildings, a gas Above Ground Installation (AGI), existing substation, internal roads, car parking and fencing, and Sperrin Galvanisers Ltd.

The new OCGT power plant would be operated adjacent to the existing Tynagh Power Station which is operated by Tynagh Energy Limited. That plant has been operational for over 15 years and stores approximately 8,000 tonnes of distillate fuel and therefore is regulated as a Lower Tier Installation in accordance with the Chemicals Act (Control of Major Accident Hazards (COMAH) involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015). The Chemical Act Regulations 2015 implement the Seveso III Directive (2012/18/EU). Installations subject to these Regulations are commonly referred to as either COMAH or Seveso Sites.

There are few residential properties near to the site. The closest residential properties are located on the LP4310 Gurytmadden to Tynagh Road. A number of rural residential properties are located within 500m of the site. There are no areas of community land zoned or designated walking or cycling routes within the site or within 100m of the site. There are no Natural Heritage Areas, proposed Natural Heritage Areas or Architectural Conservation Areas within 1km of the site.

The site is identified in Appendix 4 of the GCDP 2022-2028: Landscape Character Assessment as part of the Kilcrow Basin Unit, which falls within the wider '*Central Galway Complex Landscape'*. 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'*.

In terms of Landscape Sensitivity, the site is designated 'Low', which is defined as an area which is '*unlikely to be adversely affected by change'*.

In terms of Renewable Energy Policy, the development is in line with Key National Policy Objectives 21, 23 and 25 of the National Planning Framework (NPF) and is complementary to the broad objectives of the National Development Plan (NDP) and Regional Guidelines (RSES) to decarbonise Irelands energy generation.

## 16.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR, Ch. 15.5 are summarised in Table 16.1 below.

| **Table 16.1: Summary of Potential Effects (Land Use)** |
|---|
| **Do Nothing Scenario (Ch 15.5.1 of EIAR)** |
| • In the absence of the development, it is likely that the land will continue under the same land use. |
| **Construction Impacts** |
| • The construction is expected to take place over a period of approximately 18-24 months. There will be ground preparation works, establishment of site facilities, materials storage, and the erection of plant and buildings.<br>• The assessment has determined that because the site lies in the Central Galway Complex Landscape Type which has been afforded a landscape sensitivity principally of Low, the site's sensitivity will not be impacted during construction.<br>• The existing Tynagh Power Station site is within a lower tier SEVESO site designated by The European Communities 'SEVESO II Directive 96/82/EC', however as the proposed development will be located within and immediately adjoining the lands of the existing CCGT Power Station site the impact will be neutral.<br>• Planning policy land use zonings have a low sensitivity due to their regional importance as planning designated areas as outlined in Table 15.1, areas designated for future usage with a developer interest. The magnitude of impact during construction is unchanged (no impact) resulting in neutral significance of impact.<br>• 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 as a result of the proposed development.<br>• There are no indirect impacts on residential areas during the construction phase associated with air and noise.<br>• Residential land use has a high sensitivity as they are areas of active residential land use as outlined in Table 15.1 of the EIAR, existing beneficial land uses (i.e. Active property, agricultural land, private land associated with active property, community lands and woodlands). The magnitude of impact during construction is unchanged (no impact) resulting in a neutral significance of impact.<br>• From an air quality perspective predicted pollutant concentrations in the construction scenario show that concentrations of all pollutants are below |

| |
|---|
| all environmental standard values for all pollutants, indicating that air quality in the vicinity of the site remains of a good quality.<br>• Community land has a high sensitivity due to its beneficial importance in the wider area. The magnitude of impact during construction is unchanged (no impact) resulting in a neutral significance of impact.<br>• 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. Most activities by this business are logistics or manufacturing and would be considered of low sensitivity but there also are some aspects such as traffic and noise that could be considered of medium sensitivity. The sensitivity of the area can be considered "low" both for dust soiling impacts and for human health impacts.<br>• Additionally, the site is adjacent to the footprint of the existing Tynagh Power Station site. Activities by this business are power generation and would be considered of low sensitivity to the proposed development, also power generation.<br>• No other pending or permitted planning applications (received or approved within the last 5 years) within the vicinity of the site (as per Table 15.5 of the EIAR), including that of the Approved Development Ref: 21/2192, will be impacted directly or indirectly by the construction phase. The magnitude of impact during construction is unchanged (no impact) resulting in a neutral significance of impact. |
| **Operational Impacts** |
| • No Landscape Character Assessment's will be directly impacted in the operational phase.<br>• The total inventory of the existing Tynagh Power Station CCGT (8,000 tonnes), the Approved Development OCGT (5,120 tonnes) and the Proposed Development OCGT (Tynagh North OCGT) (5,400 tonnes) is less than 25,000 tonnes and therefore the overall complex is maintained within the Lower Tier COMAH threshold.<br>• There are no residential land use areas directly or indirectly impacted by the operational phase.<br>• The residual effects of noise emissions from the operation are assessed to be not significant.<br>• 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.<br>• No other proposed planning applications (received or approved within the last 5 years as shown in Figure 15.1 in Volume III of the EIAR) will be impacted directly or indirectly within the operational phase. |
| **Decommissioning** |
| • 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 will be identified through due process and documented in a Demolition Environmental Management Plan (DEMP). 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. |
| **Cumulative Impacts** |
| • The total inventory of distillate fuel for the existing Tynagh Power Station CCGT (8,000 tonnes), the Approved Development OCGT, 299MW (5,120 tonnes) and the Proposed Development OCGT (Tynagh North OCGT) (5,400 tonnes) is less than 25,000 tonnes and therefore the overall complex |

| | |
|---|---|
| | is maintained within the Lower Tier COMAH threshold. There will be no significant cumulative impacts expected. |

## 16.5 Mitigation

**Construction Phase**

In terms of residential land use, community land use, and industry and business development land, there will be no direct or indirect impacts, therefore no mitigation measures are required. The construction phase timing of the proposed Tynagh North OCGT is 18-24 months and are expected to commence in 2024. Mitigation measures will involve engagement by the contractor to ensure construction impacts are minimised as much as possible (refer to oCEMP, Appendix 5A, EIAR Volume II).

**Operational Phase**

In terms of residential land use, community land use, and industry and business development land, no direct or indirect impacts have been identified, therefore no mitigation measures are required. There will be no impacts associated with the proposed development with respect to nearby planning applications, therefore no mitigation measures are proposed.

## 16.6 Residual Effects

No significant direct or indirect residual impacts are predicted for the construction and operational phases.

## 16.7 The Assessment: Direct and Indirect Effects

Construction phase works will include ground preparation works, establishment of site facilities, materials storage and the erection of plant and buildings. I am satisfied that there will be no significant adverse impact on the Landscape Character due to the sites classification of 'Low' sensitivity.

In terms of impact on residential land use, I have reviewed the various chapters of the EIAR and consider that due to the separation distances between the site and sensitive residential receptors, no significant adverse impacts will occur due to construction works.

The site lies adjacent to the existing Tynagh Power Station site, which is a similar power generation facility and adjacent to Sperrin Galvanisers Ltd., which specialises in galvanising. I am satisfied that no significant adverse impacts will occur during construction due to the nature of the businesses and the distance to the site.

Effects arising from the process of decommissioning are considered to be a similar nature and duration to those arising from the construction process. A Decommissioning Plan (DEMP) would be prepared and agreed with the relevant authority at that time.

During the operational phase, I am satisfied that there will be no significant adverse impacts either directly or indirectly on residential land use areas, community use or business development land due to an overall change in Air Quality from emissions or in relation to Noise and Vibration from the development. These issues have already been discussed in this assessment under the relevant chapters.

### 16.8 Conclusion (Land Use)

Having reviewed the EIAR and planning documentation, based on the inherent design, the existing industrial character of the baseline environment and the mitigation proposed in the EIAR, I am satisfied that no significant adverse effects are likely to arise in relation to Land Use.

## 17.0 Population & Human Health

### 17.1 Issues Raised

A number of observers have raised concerns in relation to population and human health in their written submissions. The concerns raised and the applicant's response to them are summarised in Section 4.0 of this report and include impact on air quality and climate including dust, concern CO2 and sulphur emissions will double from two power stations running at the same time. Sulphur concentrates from cleaning the chimney and concern it will be doubled. Concern that the amount of carbon and other materials emitted from the towers

to be harmful to human health. Fumes and yellow discharge coming from the current plant, potential adverse impact on water including impacts resulting from disturbance to and release of historic heavy metal pollutants into nearby waterways and water supply, impact on human health and illness due to toxicity levels on the site and impacts on animal welfare due to disturbance from noise and vibration.

## 17.2 Context

EIAR Chapters 7 (Air Quality and Climate), 11 (Noise and Vibration), 12 (Water Environment), 13 (Soils and Geology) and associated technical appendices relate to Population & Human Health, which is contained in Chapter 16 of the EIAR.

The EIAR describes legislative and policy background and the receiving environment (baseline). It identified impacts for the construction and operational phases of the development in relation to Chapters 7, 11, 12 and 13, employment, population, residual and cumulative impacts. The health effects that have been considered in the EIAR primarily relate to those arising from emissions to air (Chapter 7), noise and vibration (Chapter 11), land quality/contamination (Chapter 13) and emissions to water (Chapter 13).

## 17.3 Baseline

The relevant Local, European, National and Regional policies are set out in Section 3.0 of this report. The GCDP 2022 – 2028 contains a variety of policies for the protection of residential and visual amenity, human health and air quality along with traffic management.

The baseline environment is represented by the rural fringe of Galway City and for the most part, the landscape is dominated by low intensity grazing and uncultivated, undulating lands and bog and areas zoned for built residential, commercial, industrial and amenity development.

## 17.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 17.1;

| **Table 17.1: Summary of Potential Effects (Population and Human Health)** |
|---|
| **Do-Nothing Scenario** |
| • Not examined in Chapter 17. Reviewed under separate chapters. |
| **Construction Impacts** |
| • **Air Quality** - The risk of impact from dust and particulates upon human receptors during construction has been classed as low for the following activities: earthworks; construction; and track-out.<br>• **Noise and Vibration** - The impacts on residential (human) receptors from construction noise and vibration are assessed (in EIAR Chapter 11) to be negligible due to the predicted construction sound pressure level being below the assessment criteria as defined in EIAR Chapter 11. Impacts on human health from construction phase traffic on the 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 only having a 0.3dB increase.<br>• **Water Environment** - No direct adverse impacts to human health were identified in Chapter 12: Water Environment. However, it is acknowledged there could be indirect impacts from the contamination of groundwater and surface water which may occur during construction in the absence of mitigation measures. These include: spillages; contaminated and sediment laden site runoff; groundwater flooding; and changes to overland flow.<br>• **Soil and Geology** - In terms of adverse human health impacts related to soils and geology, temporary adverse impacts could exist for off-site receptors (e.g., impacts on urban/ industrial land users, residents, and construction workers, through the inhalation of contaminated dust and dermal contact with contaminated soil following ground disturbance).<br>• **Employment** - Levels of employment will vary throughout the construction period. Local businesses will also benefit from the opportunity to supply materials, plant, and equipment during the construction phase which will represent a significant capital investment. The impact would therefore likely be moderate beneficial during construction.<br>• **Population** - The development would have a negligible impact upon the regional population of Galway. However, a temporary increase in the number of workers during construction phase (potentially up to 200 at peak time) may require employees to stay at suitable accommodation (e.g. hotels, B&B's, etc.) 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. |
| **Operational Impacts** |
| • **Air Quality** - The impact upon human receptors from NO2 or CO has been assessed (refer to EIAR Chapter 7: Air Quality and Climate, and EIAR Volume II Appendix 7A: Air Quality Assessment). The impacts have been identified as negligible due to not exceeding any AQS.<br>• **Noise and Vibration** - Operational phase noise emissions were predicted with a 3D sound model developed using the CadnaA sound modelling software package and assessed in accordance with the criteria contained in the document 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities' (NG4) (EPA, 2016) |

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|---|
| (NG4). Initial modelling indicated that, without mitigation, the development would exceed the relevant noise criteria at nearby sensitive receptor locations.<br>• **Water Environment** - Adverse impacts were identified in Chapter 12: Water Environment that could indirectly impact human health in particularly, contamination of ground water (through sub-surface contaminant migration), surface water from spills, and flooding due to a change in impermeable surfaces.<br>• **Soil and Geology** - Adverse impacts relating to contamination of groundwater which could indirectly impact human receptors through sub-surface contaminant migration has been identified in the Water Environment Chapter 12: Soils and Geology of this EIAR.<br>• **Employment** - There will be a high degree of automation in the proposed development with all processes controlled from a central control room. During the operational phase, the power plant will be operated, maintained, and managed by suitably qualified and trained personnel. The impact would therefore likely be minor beneficial during operation.<br>• **Population** - The development would not have an impact upon the local or regional population during operation. Due to a projected increase in population, the power plant 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 RSES Plan for compact growth in urbanised areas of Galway and the wider towns in the Northern and Western Regional Area. |
| **Decommissioning Impacts** |
| • Decommissioning is addressed in each of the individual chapters. |
| **Cumulative Impacts** |
| • Cumulative Impacts – No cumulative impacts have been identified in terms of air quality and climate, noise and vibration, soils and geology and the water environment which would produce a significant effect upon human health receptors. |

## 17.5 Mitigation

Mitigation measures are set out in the relevant technical chapters of the applicants EIAR and will not be repeated here. The relevant Chapters include EIAR Chapter 7: Air Quality and Climate, Section 8; EIAR Chapter 11: Noise and Vibration, Section 7; EIAR Chapter 12: Water Environment, Section 6; and EIAR Chapter 13: Soils and Geology, Section 6.

Relevant mitigation measures have been discussed in the assessment of Direct and Indirect Effects in Section 17.7 of this report below and will not be repeated here.

## 17.6 Residual Effects

The applicants EIAR did not predict any significant adverse impacts on human beings, human health, population or employment during the construction and

operational phases subject to the implementation of mitigation measures related to the management of construction and the operation of the facility.

EIAR Chapter 7: Air Quality and Climate, Chapter 11: Noise and Vibration, Chapter 12: Water Environment, Chapter 13: Soils and Geology, and Chapter 14: Traffic do not identify any significant adverse human health related effects. In terms of the local and regional population, no significant adverse effects are expected.

## 17.7 The Assessment: Direct and Indirect Effects

### 17.7.1 Air Quality (EIAR, Chapter 7)

**Construction and Decommissioning Phases -** Predicted impacts on air quality during the construction and decommissioning phase for earthworks, construction and track-out has been classed as low due to the distance between the site and the sensitive receptors. I acknowledge third party concerns in relation to the adverse impact of contaminated dust due to construction activities. For construction, mitigation measures outlined in the Outline Construction Environmental Management Plan (oCEMP) will prevent any adverse impact on human health arising from dust and particulates from construction activities. The development site is removed from existing residential areas, with the nearest sensitive receptor (Equestrian Centre) being located c. 260m to the north. There would be potentially dusty activities carried out between c. 330 and 380m from two residential properties and adjacent to a galvanising company. Due to the nature of the work undertaken in the galvanising process, dust soiling would not have any economic impacts at that site. The construction phase will be between 18-24 months. Hence, any adverse construction impacts on local air quality and public amenity will be temporary and short-term. In terms of mitigation, the appointed contractor will be required to prepare a Dust Management Plan (DMP) to minimise the amount of dust produced during construction. The contractor will produce a Construction Traffic Management Plan (CTMP) which will manage construction traffic to and from the site. I am satisfied that these plans will manage dust impacts and construction traffic. I am satisfied that adherence to the mitigation

indicated in the oCEMP and the Final CEMP will minimise adverse impacts on sensitive nearby receptors and residential properties. Decommissioning will be undertaken following a Demolition Environmental Management Plan (DEMP) as part of the IE Licence. I am satisfied that predicted air quality effects of decommissioning will be satisfactorily managed through the implementation of the DEMP.

**Operational Phase -** The impact from NO2 or CO on human receptors from the proposed development emissions during the operational phase has been identified as negligible due to not exceeding any air quality standards. Predicted pollutant concentrations in the '2024 Construction Scenario' in the EIAR show that concentrations of all pollutants are below all environmental standard values for all pollutants. This indicates that air quality in the vicinity of the site will remain of a good quality for the construction stage. The installed aggregated thermal capacity of the OCGT power plant will exceed 50MW. As such, its operations will fall within the remit of the EU's Industrial Emissions Directive (2010/75/EU) (IED). Any operational phase emission impacts arising from the combustion of natural gas and the generation of electricity will be managed and monitored by the EPA Industrial Emissions Licence (as reviewed and/or amended). The Environmental Protection Agency (EPA) is the statutory body for the regulation of an Industrial Emissions Licence (IEL).

The emissions stack height for the proposed development has been determined at 40m (above finished ground level of 67.5m AOD) in order to provide appropriate dispersion of the emitted pollutants from the OCGT. Natural gas will be the primary fuel source for all non-emergency plant at the site. Emissions from natural gas-fired plant predominantly include the pollutants NOx and CO. A backup fuel (distillate or HVO) will also be stored on site, for emergency use only.

The development is a peaking plant that will have the ability to operate 24 hours a day, seven days week. However, the plant is only really expected to operate during peak periods for a limited number of hours per year. On a precautionary basis, a full load continuous operation running on natural gas fuel has been modelled for the purposes of emissions in the EIAR.

The EIAR states the air quality assessment of operational impacts has assumed that the ELVs will be met for the operational plant as required under the IED as amended by the revised BREF (the European Commission produces best available technique reference documents or BREF notes) and in accordance with use of Best Available Techniques (BAT) under the environmental permitting regime.

Given the worst-case assumptions made in the assessment, the magnitude of the predicted impacts and the predicted NO2 and CO concentrations is considered to be not significant. The development will not give rise to significant adverse effects on air or on effects on sensitive habitats within local SPA, SAC, Ramsar sites and NHAs.

I am satisfied that no significant impact for human health, no exceedance of air quality standards or adverse impacts on local air quality is anticipated. The air quality dispersion modelling undertaken under Chapter 7 of the EIAR assumed a worse-case scenario and concluded that there would be a small increase in ground-level concentrations of NO2 and CO and that operational concentrations of the modelled pollutants would be well within current environmental standards. Refer to section 8.0 of this report for a detailed analysis of climate impacts (inc. GHG emissions).

I am satisfied that the models and the resultant conclusions are robust and I am satisfied that no significant impacts for human health, or that exceedance of air quality standards or adverse impacts on local air quality is anticipated.

### 17.7.2 Noise & Vibration (EIAR, Chapter 11)

Predicted Impacts on residential (human) receptors from construction noise and vibration are identified as negligible in the applicants EIAR. Impacts on human health from the construction phase traffic on the Tynagh Road are identified as minor due to a 1.5dB increase in road traffic noise. The N65 would experience a negligible impact due to only having a 0.3dB increase. The mitigation outlined within the applicants oCEMP (Appendix 5A of EIAR) will prevent any adverse impact upon human health arising from noise and vibration as a result of construction activities. I am satisfied that no vibration impacts will

occur due to the intervening distances between the works and sensitive receptors.

During the operational phase, noise modelling concluded that without mitigation, noise emissions would exceed the relevant noise criteria at nearby sensitive receptor locations. Therefore, mitigation in the form of acoustic barriers have been included in the design of the OCGT, so that no significant adverse impact will be experienced at sensitive residential noise receptors. There will be no significant additional noise during the operational phase having regard to the acoustic barriers proposed within the design of the OCGT and through the procurement of appropriate plant.

Guidance on permissible noise emission limits for licensed facilities is contained in the document '*Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities* (NG4)' (EPA, 2016). Having examined the noise modelling which has been carried out in line with relevant guidance (incl. EPA guidance notes), I am satisfied that the model utilised and the resultant conclusions are robust.

There is potential for minor disturbance during all phases of development. However, having regard to the existing industrial nature of the location of the development site within the former Tynagh Mines complex, which includes the existing Tynagh Power Station and Sperrin Galvanisers, the substantial separation distances to the nearest residential properties, the mitigation measures contained within the applicants oCEMP (Appendix 5A of the EIAR) and the final CEMP and the acoustic barriers proposed within the design of the OCGT, I am satisfied that the proposed development would not have any significant noise or vibration effects at sensitive receptors during all phases of the development.

### 17.7.3 Water Environment (EIAR, Chapter 12)

Predicted impacts on the Water Environment were assessed in Chapter 12 of the EIAR. No direct adverse impacts to human health were identified during the construction phase. In the absence of mitigation measures, indirect impacts from contamination of groundwater and surface water during construction were

identified which include spillages, contaminated and sediment laden site runoff, groundwater flooding and changes to overland flow. The oCEMP has detailed the mitigation measures to be employed before, during and after development works to mitigate any potential adverse effects.

During the operational phase, measures to prevent the risk of fire, flooding, spillages, or other potentially major incidents will be imbedded in the design of the development. Mitigation measures to prevent potentially major incidents are outlined in Section 16.6.9 – 16.6.13 of the EIAR. Indirect impacts on human health were identified in the absence of mitigation. With mitigation and the implementation of standard construction methods, the risk is effectively minimised.

A number of observers have raised concerns in relation to potential adverse impact on water including impacts resulting from disturbance to and release of historic heavy metal pollutants into nearby waterways and water supply.

The site and immediate environs do not contain any sensitive habitats or waterbodies. However, several nearby small streams ultimately discharge to Lough Derg (SAC & SPA). Refer to sections 10.0 (Biodiversity) and 13.0 (Water) of this report for a more detailed assessment of water quality and biodiversity impacts and section 22.0 which provides an Appropriate Assessment screening for European sites. There is potential for adverse impacts during all phases as a result of the proposed demolition, excavation and construction works including wastewater and surface water drainage arrangements, without mitigation.

The EIAR indicates that if mitigation measures are implemented as outlined, 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.

I am satisfied that with the implementation of proposed mitigation measures contained within the application documentation and the implementation of standard construction methods, the risk to groundwater and surface water quality is effectively minimised.

### 17.7.4 Soils & Geology (EIAR, Chapter 13)

Predicted Impacts on human health for the construction phase relate to temporary adverse impacts for off-site receptors (e.g. impacts on urban/industrial land users, residents, and construction workers, through the inhalation of contaminated dust and dermal contact with contaminated soil following ground disturbance. Mitigation outlined in the oCEMP (Appendix 5A of EIAR) will prevent any adverse impact upon human health arising from spillages and contaminated groundwater during construction.

Predicted impacts for the operational phase relate to indirect impact on human receptors from contamination of groundwater if mitigation were not implemented or standard construction practices not adhered to. The power plant will be operated in line with appropriate standards and the operator will implement and maintain an Environment Management System (EMS) which will be certified to International Standards Organisation (ISO) 14001. The EMS will outline requirements and procedures required to ensure that the power plant is operating to the appropriate standard. This will include dealing with events such as spillages that could impact groundwater quality.

**Employment** – The predicted impact is described as being moderate beneficial during construction and minor beneficial for the operational phase**.** No mitigation required to prevent significant impacts.

**Population** – During the construction phase, the development would have a Negligible Impact on the regional population of Galway. During the operational phase, there would be no impact on local or regional population. Due to a projected increase in population, the development would have a beneficial impact in terms of a reliable power supply during periods of high demand in the future. No mitigation required to prevent significant impacts.

### 17.8 Conclusion (Population & Human Health)

I am satisfied that the proposed development would not have an adverse impact on Population and Human Health, subject to compliance with relevant legislation and guidance, implementation of the EIAR and final CEMP mitigation measures, compliance with recommended conditions and adherence to the

terms of the EPA IE Licence (as reviewed and/or amended). The development will not give rise to any significant residual or cumulative impacts with other developments in the surrounding area.

## 18.0 Material Assets

### 18.1 Issues Raised

No specific issues were raised in relation to Material Assets.

### 18.2 Context

EIAR Chapter 17 has assessed the likely significant effects on Material Assets which are defined as Waste and Material Assets (Electrical and Gas Supply). Waste has been assessed with reference to waste arising during construction and operational phase. Material Assets are defined as substances used in each lifecycle stage of a development. The EIAR describes the regulatory and policy framework, the methodology used, predicted quantities of waste during construction and operation.

Waste management in Ireland is subject to EU, national and regional waste legislation which defines how waste materials must be managed, transported, and treated. Waste Management Policy Objective WM 5 of the County Development Plan relates to Construction and Environmental Management Plans (CEMP's).

### 18.3 Baseline

During construction of the OCGT power plant, waste arising will be generated from general construction waste. Waste will also be generated during the operation and maintenance of the development. Operational waste will include consideration of fuels from the secondary fuel storage facility, which will be managed in accordance with the revised Waste Framework Directive (2008). Waste from general maintenance activities would consist of general industrial waste, both hazardous and non-hazardous.

It is estimated that site clearance and levelling of the site layout will require a fill importation requirement of 21,000sqm. The volume of excavation and cut on the brownfield site will be limited and exportation of any excavated soil is not proposed, as confirmed in Section 17.2.8 of the EIAR. Different waste streams will be managed through the implementation of a Waste Management Plan (WMP) for construction and decommissioning and an Operational Waste Management Plan (OWMP) for the operational phase. This will be developed as part of the Industrial Emissions (IE) Licence. Operational waste will include fuels from secondary fuel storage facility, waste from general maintenance including a small amount of waste oil.

The development will have separate connections to electrical and gas supply by way of a new Above Ground Installation (AGI) to connect to the existing high pressure gas pipeline to the west and a new bay within the existing electricity substation to the south. This will allow plant to export electricity to the electricity network. It is proposed to maintain a secondary fuel supply in on-site storage tanks which will contain up to 5,400 tonnes (c. 6,600m3 of distillate fuel). This will ensure that power can still be supplied to the network in the event of an interruption to supply from the gas connection.

## 18.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 18.1 below;

| **Table 18.1: Summary of Potential Effects (Material Assets)** |
|---|
| **Do Nothing Scenario** |
| • In the do-nothing scenario there will be no generation of waste products as a result of the development and no impacts with regard to the upgrade and/ or connection of utilities proposed as part of the development. |
| **Construction Impacts** |
| **Waste**<br>• The total estimated waste arisings will be approximately 30 tonnes. It is expected that a significant proportion of the waste will be suitable for re-use or recycling (See Table 17.7 of EIAR)<br>• The estimates of waste generated during construction as shown in Table 17.7 demonstrate that the estimated tonnage produced for the would be negligible (Not significant) in line with the stated methodology in Table 17.2 of the EIAR (less than 0.1% of the remaining landfill capacity of the CUR Region).<br>• Based on the topographical data of the existing site and the development layout and floor levels it is calculated that the site preparation will require a |

clean fill importation requirement of 21,000m3. The site design and layout has been designed to ensure that the volume of excavation and cut on the brownfield site will be limited to minimise earthworks and any excavated material will not be exported off site.

**Electrical and gas utilities**

- The proposed development will have separate connections to this infrastructure, by way of a new Above Ground Installation (AGI) to connect to the existing high pressure gas pipeline to the west, and a new bay within the existing electricity substation to the south.
- An additional electrical bay will be located within the existing electrical substation compound to allow the plant to export electricity to the electricity network. This ancillary infrastructure is assessed in the EIAR and will be constructed by ESB Networks. A short-term power connection outage will be required to facilitate substation connection works.
- A new gas AGI will be created to deliver the required gas capacity for the development.
- In terms of significance, there will be a low sensitivity associated with these material assets. The magnitude of impact will be minor as there will be a minor change in utilities required. As a result, for this material asset, the significance of impact without mitigation will be neutral or slight.

**Operational Impacts**

**Waste – Secondary fuel storage and transfer facility**

- The proposed plant 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 proposed 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 plant will be required to remove any contaminants from the secondary fuel that may accumulate during storage, which will be collected in a (fuel treatment) tank contained within the bunded area prior to its safe removal and disposal off site at a suitably licenced facility. 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.
- This would represent a negligible impact (no waste arisings) and thus is considered not significant.

**Chemicals and liquid effluents**

- In terms of other waste used as part of the operation and running of the power plant, small quantities of other chemicals (i.e. lubrication oils, propane, CO2 cleaning agents and glycol/ antifreeze) will also delivered to and from the site and stored in existing stores on site. In a worst-case scenario for a development of this type, the consumable wastes produced are considered negligible.

**Electrical and gas utilities**

- The development will have separate connections to this infrastructure, by way of a new Above Ground Installation (AGI) to connect to the existing high pressure gas pipeline to the west, and a new bay within the existing electricity substation to the south.

| |
|---|
| • A gas AGI will be constructed and a gas pipeline (internal to the site) will connect the AGI to the proposed OCGT.<br>• The development will have an underground electrical connection to the existing substation. An additional electrical bay will be located within the existing electrical substation compound to allow the plant to export electricity to the electricity network. This new infrastructure will be maintained by ESB Networks. The OCGT will be connected (within the site) to this new electrical bay via buried cables.<br>• The existing grid infrastructure has a low sensitivity as the substation already exists and only a connection is required. The magnitude of impact will be moderate as there will be additional power generation created. As a result for this material asset change, the significance of impact without mitigation will be slight beneficial. (Table 17.6 of EIAR) |
| **Decommissioning** |
| • Full details of the decommissioning works would be presented in a DEMP to be produced and agreed with EPA as part of the IE Licence and site surrender process for the facility at the end of the design life. Effects arising from the process of decommissioning 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 considered likely to be recycled rather than being disposed of. |
| **Cumulative Impacts** |
| • Based on a review of planning applications and permitted developments, as presented in EIAR Chapter 15: Land use, there are no significant projects proposed that are likely to give rise to cumulative effects in conjunction with the proposed development.<br>• There will be no cumulative impacts during the operational phase on material assets or waste. |

## 18.5 Mitigation

Mitigation and enhancement measures are outlined for construction and operational phases in Ch 17.6 of the EIAR.

As good practice, an up-to-date utilities plan should be produced and submitted to GCC prior to construction showing all utilities present on the existing site before construction begins.

An oCEMP is provided in Appendix 5A, Vol II of the EIAR. A final CEMP will be prepared by the contractor prior to construction. The oCEMP sets out a waste management framework.

The site design and layout has been designed to ensure that the volume of excavation and cut on the brownfield site will be limited to minimise earthworks and any excavated material will not be exported off-site. A series of other

waste management measures will be implemented in order to reduce the likelihood of any localised impacts of waste on the surrounding environment.

For the operational phase, The Environmental Management System (EMS) that will be developed and maintained as required by the EPA and will include procedures for the management of waste in accordance with relevant legislation. A Waste Management Plan will be developed as part of the IE Licence for the proposed power plant.

## 18.6 Residual Effects

The residual effects after mitigation are outlined in Table 17.8. of the EIAR. All Material Assets after mitigation will have a negligible or slight beneficial residual effect once mitigation measures including those within the oCEMP (Appendix 5A, refer to EIAR Volume II) are taken into account.

## 18.7 The Assessment: Direct and Indirect Effects

A separate electrical and gas connection by way of a new Above Ground Installation (AGI) to connect to the existing high pressure gas pipeline to the west, and a new bay within the existing electricity substation to the south is proposed. A gas AGI will be constructed and a gas pipeline (internal to the site) will connect the AGI to the proposed OCGT. I consider that no significant adverse impacts will arise as the substation already exists and only a connection is required.

Waste will be generated during all phases of the development as described in Section 18.4 above. The total estimated construction waste arising will be c. 30 tonnes, a significant proportion of which will be suitable for re-use or recycling. This accounts for less than 0.1% of the remaining landfill capacity of the CUR Region. I consider the impact in terms of waste generation will not be significant.

The site preparation will require a clean fill importation requirement of 21,000m3. The site design and layout has been designed to ensure that the volume of excavation and cut on the brownfield site will be limited to minimise

earthworks and any excavated material will not be exported off-site. I consider this to be an appropriate re-use of excavated material.

A condition in relation to a Construction and Demolition Waste Management Plan (C&DWMP) and CEMP will ensure the inclusion of design and construction measures that apply the waste hierarchy principles and minimise effects on waste. These measures will be implemented in full to achieve the recovery rates noted.

During operation, 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. I consider the impact of the disposal of contaminants from the secondary fuel supply will not be significant and will be infrequent.

Small amounts of operational waste will be generated during operation and running of the development including small quantities of chemicals. I consider that this will not have any significant adverse impacts.

I am satisfied that significant adverse impacts in relation to waste will be mitigated through the preparation and implementation of a Construction and Demolition Waste Management Plan (C&DWMP), an Operational Waste Management Plan, compliance with Mitigation and Enhancements Measures contained within the EIAR (Section 17.6), compliance with the final CEMP for the site and compliance with the terms of any IE Licence.

## 18.8 Conclusion (Material Assets)

Waste arising would be managed in accordance with all relevant waste management regulations. I am satisfied that Waste and Material Assets including Gas and Electrical Utilities have been appropriately addressed and no significant adverse effect is likely to arise.

## 19.0 Major Accidents & Disasters

### 19.1 Issues Raised

The HSA has noted that on the basis of the information supplied, the Authority doesn't advise against the granting of planning permission in the context of major accident hazards. (See Section 4.2.1 of this report for details)

### 19.2 Context

EIAR Chapter 18 including Appendix 18A – Technical Land Use Planning Assessment (TLUP), addresses Major Accidents and Disasters (MA&D). The EIAR describes the regulatory and policy framework, the methodology utilised, the receptors including ground and groundwater and surface waterbodies and provides a TLUP. It describes the baseline, predicted impacts and provides details of the dangerous substances to be utilised on the site (Table 18.1 of EIAR) and a summary of major accidents (Table 18.2 of EIAR) and mitigation measures proposed.

### 19.3 Baseline

The development site is located on land within and to the immediate north of the existing Tynagh Power Station, which has been operational since 2006. The proposed OCGT power plant will operate as a "peaking plant", spending most of its time on standby, and will be run to complement renewable power generation technology. The proposed OCGT would be operated adjacent but separate to the existing Tynagh Power Station, with separate diesel offloading and storage (for when required in the event of an outage or interruption to the gas supply). The existing Tynagh Power Station has been operational for over 15 years and stores c. 8,000 tonnes of distillate fuel and is therefore regulated as a Lower Tier Installation in accordance with the Chemicals Act (Control of Major Accident hazards (COMAH) involving Dangerous Substances) Regulations 2015 (S.I. No 209 of 2015). The Chemical Act Regulations 2015 implement the Seveso III Directive (2012/18/EU). There will be no storage of natural gas at the site (as it will be piped directly), but there will be storage of

5,400 tonnes (c. 6,600m3) of distillate duel as a backup power supply, and therefore is within the Lower Tier COMAH threshold. In combination, the three power plant stations (Tynagh Power Station, Approved 299MW Power Plant and Proposed Development) would have a total inventory of 18,520 tonnes of distillate fuel. The overall complex is maintained within the Lower Tier COMAH threshold (below 25,000 tonnes).

Dangerous substances on site include Natural gas, Distillate fuel, Diesel and Construction Materials as well as substances which are subject to confirmation during the detailed engineering design phase. Firewater runoff is also considered. The conclusions of the substance review are that the only substances with the potential to initiate a major accident hazard scenario are natural gas and distillate fuel.

The site is located within the footprint of the former Tynagh mines site so the underlying ground and subsurface have historically undergone substantial disturbance as part of the previous mining activities. The current groundwater classification in the area ranges from poor and unproductive to locally important which is moderately productive. The aquifer has an extreme (E) vulnerability rating due to the limited overburden cover in some areas of the site. Investigations have detected localised elevated levels of some metals in soil and groundwater samples taken from the site. Localised elevated levels of hydrocarbons were also detected in some of the soil samples. These were attributed to the past mining activities on the site.

The proposed treatment and disposal of storm water will be the same as the existing Tynagh Power Station. Storm water will be routed through treatment screens and an interceptor to remove any trace oils prior to discharge to surface water within the flooded Open Pit of the former Tynagh mine to the south.

The flooded Open Pit is located adjacent to the south-eastern boundary of the existing Tynagh Power Station site. Upon closure of the mine, the underground section of the mine and Open Pit were allowed to flood. The Open Pit covers an area of 10ha, is up to 70m deep and contains approximately 10 million m3 of water. Analysis of the water quality in the Open Pit carried out as part of a previous EIA and IPC (Integrated Pollution Control) application for the existing

Tynagh Power Station development, indicated elevated concentrations of heavy metals and sulphates in the water. Some individual polyaromatic hydrocarbons (PAHs) were also elevated, similar to the groundwater samples taken from the site at the same time.

The tailings pond associated with the former mine covers an area of approximately 48.5ha and contains non-ore grade residual material generated during the processing of ore at the former mines site. The tailings ponds have been subject to different levels of remediation (dredging, seeding with vegetation etc.) by the owners of the former mine site. Therefore, the Open Pit and tailings pond of the former mines site have limited environmental sensitivity, ecological or amenity value.

## 19.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 19.1;

| **Table 19.1: Summary of Potential Effects (Major Accidents and Disasters)** |
|---|
| **Do Nothing Scenario** |
| • In the absence of the development, credible major accident and disaster scenarios would remain in this geographic location due to the presence of the existing Tynagh Power Station and the Approved Development Ref: 21/2192 and the associated infrastructure. However, the likelihood of these scenarios is very low. |
| **Assessment of Major Accidents (Table 18.2 of EIAR)** |
| • The assessment of potential Major Accidents initially considers the substances present at the site, identifying those which are potentially dangerous, such as combustible and flammable materials. These include natural gas, distillate fuel, emergency diesel generator (EDG) and construction materials, compressed gas cylinders containing LPG etc., acetylene contained in compressed gas cylinders, hydraulic and lubrication oils, firewater runoff.<br>• Table 18.1 of the EIAR contains a review of the potential accident scenarios which involve the substances described above.<br>• The conclusions of the substance review are that the only substances with the potential to initiate a major accident hazard scenario are natural gas and distillate fuel. For the accident scenarios associated with these substances, the likelihood and risk of significant effects are described in Table 18.2 of the EIAR, along with mitigating measures. |
| **Assessment of Potential Disasters (Table 18.3 of EIAR)** |
| • This is primarily based on geographical location and the potential impact of climate change effects, such as increased ambient temperatures, rising river and sea levels.<br>• The potential disaster scenarios which have been identified as being credible for the development are listed in Table 18.3. These are low |

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| probability events, and their potential impacts are mitigated during the engineering design and construction of the development.<br>• The overall risk of disasters occurring is very low but cannot be entirely eliminated; therefore, management measures such as operating systems and procedures, the Accident Prevention Plan, and Emergency Response Procedures will be developed. These measures further reduce the risk and impacts of disasters, with key procedures summarised in Table 18.3. |
| **Decommissioning** |
| • Effects arising from the process of decommissioning are considered to be of a similar nature and duration to those arising from the construction process which have been assessed and therefore have not been considered separately in this chapter. A DEMP will be produced and agreed as part of the Industrial Emissions (IE) Licence of the site and site surrender process. |
| **Cumulative Impacts** |
| • No cumulative impacts expected during construction phase.<br>• It is assumed in the EIAR that for the operational phase both the Approved Development Ref: 21/2192 and the proposed OCGT may operate concurrently in the future. The proposed development, the Tynagh Power Station and the Approved Development Ref: 21/2192 will be managed by experienced operating personnel to ensure communication and cooperation in activities thus reducing risk and the potential for accidents. In addition to implementing the mitigation measures outlined in Tables 18.1 – 18.2 and those in Section 18.11, risk assessment reviews such as HAZID will be conducted at an appropriate stage of the process to capture any potential cumulative effects or impacts from proposed development, the Approved Development Ref: 21/2192 and the existing Tynagh Power Station site operating adjacent to each other. |

## 19.5 Mitigation

Measures to prevent other potentially major incidents include compliance with all relevant health, safety and environmental legislation including COMAH / Seveso, the design, construction, and operation of the proposed development in accordance with international, national, and established industry codes, standards, and practice, a site-specific Health and Safety Plan produced by the engineering and construction contractor covering the works and commissioning of the OCGT power plant to ensure compliance with relevant health and safety legislation, a Site Emergency Response Plan (ERP) to cover the development in accordance with legislative requirements including COMAH / Seveso and IE Licence, which will include a fire strategy and appropriate training procedures, regular maintenance and inspection of all facilities to reduce the potential for equipment failures which could lead to a loss of containment, procedures in place to clearly detail the responsibilities, actions and communication channels for operational staff and personnel on how to deal with emergencies should

they occur. Staff to receive the level of training required for their role and position. This includes dealing with events such as fires, spillages, flooding etc. Such measures will be included in the site operating and management system and regulated by EPA through the IE Licence.

The mitigation measures described in Table 18.2 and Table 18.3 of the EIAR contain references to the ERP for the site. This document will be developed and reviewed by the regulatory authorities.

## 19.6 Residual Effects

The overall risk of disasters occurring is very low but cannot be entirely eliminated, therefore management measures such as operating systems and procedures, the Accident Prevention Plan, and Emergency Response Procedures will be developed.

The potential impact of natural disasters including climate change effects, such as rising temperatures, storms and flooding has been considered. No significant adverse residual or cumulative impacts are predicted.

## 19.7 The Assessment: Direct and Indirect Effects

Under the COMAH Regulations, where a new development is planned which qualifies as an upper or a lower tier establishment, the Health & Safety Authority (HSA) will advise on whether the risks associated with the proposed development are in accordance with the Authority's criteria for individual risk and for societal risk. In this regard, the application including the Further Information received from the applicant was issued to the HSA for comment. The response from the HSA is summarised in Section 4.2.1 of this report. The HSA has confirmed that, the Authority doesn't advise against the granting of planning permission in the context of major accident hazards.

I have considered the updated COMAH Land Use Planning Assessment Report prepared by Bryne Ó Cléirigh Consulting dated 24th May 2024, which was prepared by the applicant following a series of further information requests by the HSA. I am satisfied that the report is robust and that major accident hazards

have been appropriately addressed and no significant adverse effect is likely to arise.

I acknowledge the concerns of the third parties relating to the boundary of the COMAH establishment. In this regard, I note that the HSA is satisfied with the approach taken by the applicant in their assessment of the site on the basis that all three plants (existing, approved (ABP-313538-22) and proposed) will form a single COMAH establishment rather than it being a new establishment. In this regard, a single COMAH boundary is shown within Appendix 1 of the Land Use Planning Assessment Report. The applicant has clarified that the site location plan identifies the location of the proposed development, however for assessment purposes the Land Use Planning Assessment has identified a single boundary which includes the existing, approved and proposed schemes.

The assessment has identified a loss of containment and subsequent fire and/ or explosion within the natural gas and distillate fuel systems as the most likely cause of a major accident. The likelihood of a loss of containment of natural gas or distillate fuel is low, however, the consequences of such an event would be significant in terms of harm to people and the environment.

The proposed power plant will be developed with installed safety systems to prevent a loss of containment and subsequent fire and/or explosion. I consider that the installed safety systems along with the Mitigation and Enhancement Measures described in Tables 18.1, 18.2 and in Section 18.5 of the EIAR will prevent potentially major incidents from occurring.

A decommissioning plan will be produced and agreed as part of the Industrial Emissions (IE) Licence of the site and site surrender process, which will include the safe removal of substances including natural gas and distillate fuel.

### 19.8 Conclusion (Major Accidents and Disasters)

Any additional risks associated with Major Accidents and Disasters (MA&D) at the Seveso site have been identified and the potential impacts associated with climate change, such as rising temperatures, storms and flooding have been factored into the consideration of the development in the EIAR and Further Information responses. The proposed energy generating facility would operate

in accordance with the terms and conditions of the EPA Industrial Emissions Licence, as amended and/or reviewed. The proposed development relates to a Lower Tier COMAH site, it falls under the requirements of the Chemicals Act (Control of Major Accident hazards (COMAH) involving Dangerous Substances) Regulations 2015 (S.I. No 209 of 2015).

The Health and Safety Authority (HSA) is satisfied that the project comprises a change to an existing COMAH site rather than the creation of a new installation. The applicant's Land Use Planning Risk Assessment report (submitted as Further Information) determined the level of risk that would be presented by the new development in the context of a Major Accident scenario (incl. the impact on the surrounding environs). It concluded that the project satisfies the risk-based criteria that are set out in the relevant HSA guidance. The HSA had no objection to the proposed development following the receipt of this Further Information.

Based on the above, I am satisfied that the overall risk of Major Accidents and Disasters has been adequately addressed and the risk of MA&D is low.

## 20.0 Cumulative & Combined Effects and Interactions

Several projects are relevant in relation to cumulative impacts including energy projects such as the 299MW Power Plant which was approved by An Bord Pleanála in May 2023 and the existing Tynagh Power Station. It has been stated in the application documentation that the applicant is unable to implement the 299MW Power Plant permission for the foreseeable future due to a range of viability constraints. For robust EIA assessment purposes, it is nonetheless assumed that the Approved Development may proceed, in amended form, at some point in the future and it is assumed that the construction phase could be before or after the construction of the development (i.e. not concurrent and the peak periods would not overlap). Other developments approved in the area include small scale single dwelling applications and Industrial projects including amendments to the adjacent Sperrin Galvanisers site (Ref 19633, and Ref 18221).

Having regard to the nature and scale of these projects and their expected construction programmes and the intermittent nature of the development as a 'peaking plant', which will spend most of its time on standby, I am satisfied having reviewed and assessed Chapter 19 of the EIAR and the other relevant Chapters of the EIAR (Chapters 7 to 18), that the issue of significant cumulative or combined effects does not arise.

I have also considered the interactions and interrelationships between environmental effects. In particular these would include;

- Combined effects of air quality, water environment, noise, traffic and visual amenity impacts on human receptors;
- Combined effects of air quality/dust, noise, water quality impacts on ecological receptors.

I am satisfied that significant impacts in relation to interactions can be avoided, managed and mitigated by the measures contained within the EIAR and any recommended planning conditions.

## 21.0 Reasoned Conclusion

Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the applicant, the submission from the planning authority, prescribed bodies and observers in the course of the application, I consider that the main significant direct and indirect effects of the proposed development on the environment are, and will be mitigated as follows;

- The proposed development would give rise to an increase in greenhouse gas (GHG) emissions during the operational stage with resulting climate impacts. The expected emissions from the facility is c. 368,158 tCO2e annually. However, it is acknowledged that gas fired peaking plant power stations are required as an important part of the overall transition to ensure Irelands energy security. I am satisfied that the proposed development is in accordance with The Climate Act 2024, which specifically provides a target for the delivery of at least 2GW from new

flexible gas fire power generation by 2030 to ensure security of electricity supply and reduce emissions. The impact on the environment would not be significant in the long-term having regard to the transitionary nature of the facility, which would only operate 'as and when needed' to provide backup electricity generation to the national grid by responding rapidly to fluctuations in supply (e.g., when the wind is not blowing/ adding to power generation). Negative impacts on **air and climate** during the operation stage will be mitigated by adherence to the emission limit levels set by the EPA Industrial Emissions Licence.

- Negative impacts on **human health and population, air and climate** and **biodiversity** arising from construction and decommissioning activities. The proposed development would give rise to minor localised impacts on the surrounding environment and road network due to HGV construction traffic and dust and noise associated with construction activities. The construction phase of the development is 18-24 months in duration. These impacts will be temporary in nature with HGV peak for 12 weeks. These impacts will be mitigated through the adherence to best practice construction measures and the implementation of a final CEMP and C&DWMP. I consider that the construction phase will not have a permanent significant adverse impact on the surrounding road network. Noise disturbance from the operation of the proposed facility has been mitigated with the inclusion of acoustic barriers to protect noise sensitive receptors. I consider that a robust noise assessment has been completed in the EIAR and that the proposed design mitigation to be appropriate.
- Negative impacts on **hydrology** could arise as a result of the release of sediments, which may potentially contain heavy metals or other contaminants. During all phases, water pollution could potentially occur directly from spillages of polluting substances into waterbodies, or indirectly in runoff from hard standing, other sealed surfaces or from construction machinery. Fine sediment may also be distributed into waterbodies directly or also wash off working areas and hard standing (including roads) into waterbodies indirectly via existing drainage

systems or overland. This will be mitigated by implementation of the EIAR and final CEMP mitigation measures and compliance with the EPA IE Licence requirements for the facility as reviewed and/or amended and compliance with recommended conditions. The surface water drainage will tie into the existing system at the Tynagh Power Station. Surface water run-off will be routed via oil and silt interceptors into the attenuation tank and then discharge to the former open pit mine using the existing outfall, so no new structures are required.

- In terms of **biodiversity** and **hydrology**, the site contains a small pond which is inhabited by the nationally protected Smooth Newt. If mitigation measures outlined in the EIAR and final CEMP are adhered to, the smooth Newt population will be protected.

In conclusion, having regard to the above identified significant impacts, I am satisfied that the proposed development would not have any unacceptable direct or indirect impacts on the environment, subject to the implementation of the mitigation and enhancement measures outlined in the EIAR, any recommended conditions and adherence to the terms and conditions of the EPA Industrial Emission Licence, should it be granted.

## 22.0 The Likely Significant Effects on a European Site

### 22.1 Introduction

The areas addressed in this section are as follows;

- Compliance with Articles 6(3) of the EU Habitats Directive
- Appropriate Assessment Screening Determination
- Appropriate Assessment Conclusions

### 22.2 Compliance with Articles 6(3) of the EU Habitats Directive

Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must

be satisfied that the proposal will not adversely affect the integrity of the European site.

### 22.3 The Applicants AA Screening Report

The planning application was accompanied by an AA Screening Report. The applicants AA Screening report describes the site, the receiving environment and ecological baseline. It describes all the main elements of the proposed development. The assessment was informed by a desk study and ecological surveys carried out between 2021-2023. Surveys included Preliminary Ecological Appraisal, Habitats and Plants, Bat Preliminary Roost Assessment, Otter and Badger, Amphibians, Breeding Birds and Wintering Birds. It summarised the legislative requirements and relevant case law, described the AA screening methodology, identified the relevant European sites within a 15km buffer of the site, and described the likely sources of impact arising from the development. The assessment screened out all of these European sites due to the distances between the European site and the proposed development (the closest of which is 6.1km) and concluded no significant effects are likely to any European site either alone or in-combination with other plans and projects. No source-pathway-receptor links were identified to any of the qualifying interests of the European sites in the vicinity or mobile qualifying interest from sites further afield. Hence, the report concluded that there was no requirement to proceed to Stage 2, Appropriate Assessment.

### 22.4 Appropriate Assessment Screening

I have considered the proposed OCGT (350MW) plant in light of the requirements of S177U of the Planning and Development Act 2000, as amended.

The proposed development is not located within a European site and is not required for the management of any European site. 13 no. European sites are located within 15km of the proposed development/ zone of influence (ZOI). This comprises 9 no. SACs and 4 no. SPA’s.

The nearest European sites include Ardgraigue Bog SAC [2356] located 8.3km east, Barroughter Bog SAC [0231] 10.1km southeast & 17.5km downstream of Cloonprask/Barnaculia Stream and Lisduff Stream, Pollnaknockaun Wood Nature Reserve SAC[0319], located 11.0km south, Rosturra Wood SAC [1313] located 11.2km south, Lough Derg, North-east Shore SAC [2241], located 11.1km southeast & 19km downstream of Cloonprask/Barnaculia Stream and Lisduff Stream, Lough Rea SAC [0304] located 11.5km west, Cloonmoylan Bog SAC [0248] located 11.7km south, Derrycrag Wood Nature Reserve SAC [0261] located 13.3km south, River Shannon Callows SAC [0216} located 14.4km east, Slieve Aughty Mountains SPA [4168] located 6.1km southwest, Lough Derg (Shannon) [4058] located 11.1km southeast & 19.2km downstream of Cloonprask/Barnaculia Stream and Lisduff Stream, Lough Rea SPA [4134] located 11.5km west, Middle Shannon Callows SPA [4096] located 14.4km east.

The proposed development will comprise the following main components:

- Open Cycle Gas Turbine (OCGT) unit, 40m emissions stack and balance of plant;
- Acoustic barriers;
- Secondary fuel storage and unloading facility;
- Distillate fuel gantry;
- Water Storage Tanks;
- Gas AGI and electrical substation infrastructure; and
- Surface water drainage system.

The proposed development will have separate connections to this infrastructure, by way of a new Above Ground Installation (AGI) to connect to the existing high pressure gas pipeline to the west, and a new bay within the existing electricity substation to the south.

No nature conservation concerns were raised in submissions received.

The Qualifying Interests (Qis), Special Conservation Interests (SCIs) and distance from the development site on the following table;

| Table 22.1 Appropriate Assessment Screening (SACs) | | | | |
|---|---|---|---|---|
| **No.** | **European Site, Site Code Name and Distance** | **Qualifying Interest (QI)** | **Conservation Objective** | **Connectivity-Source-Pathway-Receptor** |
| 1 | Ardgraigue Bog SAC [2356]<br>8.3km east | Active raised bogs [7110]<br>Degraded raised bogs still capable of natural regeneration [7120]<br>Depressions on peat substrates of the Rhynchosporion [7150] | To restore the favourable conservation condition of Active raised bogs in Ardgraigue Bog SAC | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |
| 2 | Barroughter Bog SAC [0231]<br>10.1km southeast & 17.5km downstream of Cloonprask / Barnacullia Stream & Lisduff Stream | Degraded raised bogs still capable of natural regeneration [7120]<br>Depressions on peat substrates of the Rhynchosporion [7150] | To restore the favourable conservation condition of Active raised bogs in Barroughter Bog SAC. | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |
| 3 | Pollnaknockaun Wood Nature Reserve SAC [0319]<br>11.0km south | Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] | To maintain the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Pollnaknockaun Wood Nature Reserve SAC. | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |
| 4 | Rosturra Wood SAC [1313]<br>11.2km south | Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] | To maintain the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Rosturra Wood Nature Reserve SAC. | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |
| 5 | Lough Derg, North-east Shore SAC [2241]<br>11.1km southeast & 19 km downstream of Cloonprask / Barnacullia Stream and Lisduff Stream | Juniperus communis formations on heaths or calcareous grasslands [5130]<br>Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]<br>Alkaline fens [7230]<br>Limestone pavements [8240] | To restore the favourable conservation condition of Juniperus communis formations on heaths or calcareous grasslands, Calcareous fens with Cladium mariscus and species of the Caricion davallianae, Alkaline fens, Limestone | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |

| | | | | |
|---|---|---|---|---|
| | | Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]<br>Taxus baccata woods of the British Isles [91J0] | pavements, Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae), and Taxus baccata woods of the British Isles in Lough Derg, North-east Shore SAC. | |
| 6 | Lough Rea SAC [0304]<br>11.5km west | Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] | To maintain the favourable conservation condition of Hard oligo mesotrophic waters with benthic vegetation of Chara spp. in Lough Rea SAC. | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |
| 7 | Cloonmoylan Bog SAC [0248]<br>11.7km south | Active raised bogs [7110]<br>Degraded raised bogs still capable of natural regeneration [7120]<br>Depressions on peat substrates of the Rhynchosporion [7150]<br>Bog woodland [91D0] | To restore the favourable conservation condition of Active raised bogs in Cloonmoylan Bog SAC. | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |
| 8 | Derrycrag Wood Nature Reserve SAC [0261]<br>13.3km south | Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] | To maintain the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Derrycrag Wood Nature Reserve SAC. | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |
| 9 | River Shannon Callows SAC [0216]<br>14.4km east | Molinia meadows on calcareous, peaty or clayey-silt-laden soils Molinion caeruleae [6410]<br>Lowland hay meadows Alopecurus pratensis, Sanguisorba officinalis [6510]<br>Alkaline fens [7230]<br>Limestone pavements [8240]<br>Alluvial forests with Alnus glutinosa and Fraxinus excelsior | To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/ or the Annex II species for which the SAC has been selected. | No<br><br>**Screened out. No hydrological impact and distance sufficient from SAC for no impacts.** |

| | | | | |
|---|---|---|---|---|
| | | (Alno-Padion, Alnion incanae, Salicion albae) [91E0]<br>Otter Lutra lutra [1355] | | |

| Table 22.2 Appropriate Assessment Screening (SPAs) | | | | |
|---|---|---|---|---|
| **No.** | **European Site, Site Code Name and Distance** | **Special Conservation Interests (SCIs)** | **Conservation Objective** | **Connectivity-Source-Pathway-Receptor** |
| 1 | Slieve Aughty Mountains SPA [4168] 6.1km southwest | Hen harrier Circus cyaneus [A082]<br>Merlin Falco columbarius [A098] | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA | No<br><br>**Screened out. Unsuitability of site for Mobile QI and distance from SPA** |
| 2 | Lough Derg (Shannon) SPA [4058] 11.1km southeast & 19.2km downstream of Cloonprask / Barnacullia Stream and Lisduff Stream | Cormorant Phalacrocorax carbo [A017]<br>Tufted duck Aythya fuligula [A061]<br>Goldeneye Bucephala clangula [A067]<br>Common tern Sterna hirundo [A193]<br>Wetland and waterbirds [A999] | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.<br>To maintain or restore the favourable conservation condition of the wetland habitat at Lough Derg (Shannon) SPA as a resource for the regularly occurring migratory waterbirds that utilise it. | No<br><br>**Screened out. Unsuitability of site for Mobile QI and distance from SPA** |
| 3 | Lough Rea SPA [4134] 11.5km west | Shoveler Anas clypeata [A056]<br>Coot Fulica atra [A125]<br>Wetland and waterbirds [A999] | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.<br>To maintain or restore the favourable conservation condition of the wetland habitat at Lough Rea SPA as a resource for the regularly occurring migratory waterbirds that utilise it. | No<br><br>**Screened out. Unsuitability of site for Mobile QI and distance from SPA** |
| 4 | Middle Shannon Callows SPA [4096] 14.4km east | Whooper swan Cygnus cygnus [A038]<br>Wigeon Anas penelope [A050]<br>Corncrake Crex crex [A122] | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.<br>To maintain or restore the favourable conservation condition of the wetland habitat at Middle Shannon | No<br><br>**Screened out. Unsuitability of site for Mobile QI and distance from SPA** |

| | | | | |
|---|---|---|---|---|
| | | Golden plover Pluvialis apricaria [A140]<br>Lapwing Vanellus vanellus [A142]<br>Black-tailed godwit Limosa limosa [A156]<br>Black-headed gull Chroicocephalus ridibundus [A179]<br>Wetland and waterbirds [A999] | Callows SPA as a resource for the regularly occurring migratory waterbirds that utilise it. | |

## 22.5 Potential Impacts

Potential Effects of the Proposed Development relate to:

- Air Quality - Airbourne pollution of QI or SCI habitats/species, or habitats supporting QU/SCI via chimney stacks and traffic related emissions.
- Water Quality - Waterborne pollution of QI or SCI habitats/species, or habitats supporting QI/SCI via the surface water drainage system.
- Disturbance due to increased noise, artificial lighting and/or the increased presence of personnel, plant and machinery during construction and operation.
- Direct loss of or damage to QI or supporting habitat(s).

Potential effects relate to the following European Sites:

Ardgraigue Bog SAC [2356], Barroughter Bog SAC [0231], Pollnaknockaun Wood Nature Reserve SAC [0319], Rosturra Wood SAC [1313], Lough Derg, North-east Shore SAC [2241], Lough Rea SAC [0304], Cloonmoylan Bog SAC [0248], Derrycrag Wood Nature Reserve SAC [0261], River Shannon Callows SAC [0216], Slieve Aughty Mountains SPA [4168], Lough Derg (Shannon) [4058], Lough Rea SPA [4134] Middle Shannon Callows SPA [4096].

These SACs are located between c. 8.3km and 14.4km from the site and are designated for a variety of habitats including Bogs, Oak Woods, Heaths, Limestone Pavements, Meadows & Waterbodies) and one species (Otter), which are outlined in the table above (QI's).

The air quality assessment carried out to inform the EIAR has resulted in a finding of no significant effects to any ecological receptors, as the critical threshold will not be exceeded. Hence, no likely significant effects are predicted on any European site in relation to air quality.

A potential hydrological pathway comprises three small streams, the Cloonprask/Barnacullia Stream (c. 13km NE), the Mill Stream (c.250m from the site), and the Lisduff Stream (c. 470m S) all of which flow into the Kilcrow River and then into Lough Derg (c. 18km).

The power station surface water management system is a closed system with stormwater passing into a lagoon following passing through an existing treatment system. The construction of the development will be at a distance of over 130m from any water course. It is considered that due to the nature of the works and the design of the closed drainage system, the likelihood of any pollutants reaching the nearby watercourses via runoff is unlikely. Furthermore, due to the hydrological distance between the development site and the European sites downstream including Barroughter Bog SAC (c. 17.5km) and Lough Derg SAC/SPA (11.1km), the likelihood of pollutants reaching the European sites in high enough concentration to affect the Qualifying Interests or Conservation Objectives for each site is highly unlikely.

Slieve Aughty Mountains, Lough Derg Shannon, Lough Rea, Middle Shannon Callows SPAs are located between c. 6.1km and 14.4km from the development site and are designated for a variety of different birds and wetland, as outlined on the preceding Table (SCI's).

Due to the nature of the site, which contains negligible habitat of use to species identified in the European sites noted above and the results of the bird surveys, the separation distance between the proposed development and the European sites and the Special Conservation Interests for each site, it is highly unlikely that the proposed development would have an adverse effect on these SPAs, their SCI species or their Conservation Objectives.

## 22.6 In-combination Impacts

Having regard to the scale and nature of the proposed development, I am satisfied that the proposed OCGT would not act in combination with any other plans or projects (other than the existing CCGT and 299MW OCGT plant) in a way that would give rise to an adverse impact on any European site.

## 22.7 AA Screening Conclusion

The project is not directly connected with or necessary to the management of a European site. The proposed development is examined in relation to possible interaction with European sites designated Special Conservation Areas (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European site in view of the conservation objectives of those sites. The conservation objectives and qualifying interests and special conservation interests are outlined in Tables 22.1 and 22.2 on the previous pages.

Having considered the nature, scale and location of the proposed development, I am satisfied that it can be eliminated from further assessment because there is no conceivable risk to any European site. The reason for this conclusion is as follows;

- the nature and scale of the proposed development and works and the nature of potential likely significant effects,
- the substantial separation distances and the lack of connections between the proposed development site and the European sites examined in this assessment,
- the nature of the qualifying interests, special conservation interests and conservation objectives of the European sites,
- the available information as presented in the submitted documents regarding habitats, species, ground and surface water pathways between the application site and the European sites and other information available, (incl. the desktop studies and field surveys), NPWS website and aerial imagery,

- Taking into account the screening report/determination by the Planning Authority.

No measures intended to avoid or reduce harmful effects on European sites were taken into account in reaching this conclusion.

It is my opinion that the proposed development does not have the potential to affect any European sites having regard to the conservation objectives of the relevant site. I conclude that on the basis of objective information, that the proposed development would not have a likely significant effect on any European site either alone or in combination with other plans or projects.

Likely significant effects are excluded and therefore Appropriate Assessment (Stage 2) (under Section 177V of the Planning and Development Act 2000) is not required.

## 23.0 Recommendation

Having regard to the foregoing, I recommend that permission for the construction of the Open Cycle Gas Turbine power plant (350MW) and associated infrastructure should be **GRANTED** permission for the following reasons and considerations subject to conditions.

### 23.1 Reasons and Considerations

Having regard to;

County, European, National, Regional, and other support for renewable energy development as follows:

- Policies set out in the Galway County Development Plan 2022 – 2028,
- RED III (European Renewable Energy Directive (EU/2023/2413)),
- REPowerEU Plan 2022 and Directive EU 2018/2001, as amended 18.05.2022,
- The European Green Deal 2020,
- The National Planning Framework 2018-2040 (NPF),
- The National Development Plan 2021-2030,
- The Climate Action and Low Carbon Development (Amendment) Act 2021,
- The Climate Action Plan 2024 (CAP 2024),
- The Energy Security in Ireland to 2030, Energy Security Package, Nov. 2023,

- The National Energy Security Framework, April 2022,
- The Policy Statement on Security of Electricity Supply, November 2021,
- The Long-Term Strategy on Greenhouse Gas Emissions Reductions (April 2023),
- The National Climate and Energy Plan 2021-2030 (NCEP),
- The National Biodiversity Action Plan,
- The Regional Spatial & Economic Strategy for the North and West Region (2020 –2032),
- The All-Island Generation Capacity Statement 2022 – 2031,

- The documentation submitted with the planning application including the Environmental Impact Assessment Report (EIAR) and the Appropriate Assessment Screening,
- The submissions made in connection with the application,
- Mitigation measures proposed for the construction, operation and decommissioning of the site,
- The topography of the area,
- The pattern of development in the area,
- The separation distances between the proposed development and dwellings or other sensitive receptors,
- The likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the absence of likely significant effects of the proposed development on European sites.

### 23.2 Proper Planning and Sustainable Development

It is considered that, subject to compliance with the conditions set out below, the proposed development would be in accordance with European, National, and Regional renewable energy policies and with the provisions of the Galway County Development Plan 2022-2028, be consistent with the obligations of the Climate Action Plan 2024, would not seriously injure the visual amenities of the area or have an unacceptable impact on the character of the landscape or archaeological heritage, would not have a significant adverse impact on ecology, would be acceptable in terms of traffic safety and would make a

positive contribution to Ireland's renewable energy and security of energy supply requirements. The proposed development would therefore be in accordance with the proper planning and sustainable development of the area.

### 23.3 Likely Effects on the Environment/Environmental Impact Assessment

The Board completed an environmental impact assessment of the proposed development taking account of:

a) the transitionary nature of the proposed development which will operate as and when needed to ensure security of electricity supply,

b) the scale and location of the proposed development within a long established industrial and energy generating site, which occupies a former mining complex,

c) the Environmental Impact Assessment Report (EIAR) and associated documentation submitted in support of the application,

d) the Screening for Appropriate Assessment and associated documentation submitted in support of the application,

e) the planning authority reports, and the submissions received from the Observers and Prescribed Bodies, and

f) the Inspector's report.

The Board considered that the environmental impact assessment report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development, and identifies and describes adequately the direct, indirect, residual and cumulative effects of the proposed development on the environment. The Board agreed with the examination, set out in the Inspector's report, of the information contained in the environmental impact assessment report and associated documentation submitted by the applicant and submissions made in the course of the application.

The Board considered that the main significant direct and indirect effects of the proposed development on the environment are, and would be mitigated as follows:

- The proposed development would give rise to an increase in greenhouse gas (GHG) emissions during the operational stage with resulting climate impacts. The expected emissions from the facility is c. 368,158 tCO2e annually. However, it is acknowledged that gas fired peaking plant power stations are required as an important part of the overall transition to ensure Irelands energy security. I am satisfied that the proposed development is in accordance with The Climate Act 2024, which specifically provides a target for the delivery of at least 2GW from new flexible gas fire power generation by 2030 to ensure security of electricity supply and reduce emissions. The impact on the environment would not be significant in the long-term having regard to the transitionary nature of the facility, which would only operate 'as and when needed' to provide backup electricity generation to the national grid by responding rapidly to fluctuations in supply (e.g., when the wind is not blowing/ adding to power generation). Negative impacts on **air and climate** during the operation stage will be mitigated by adherence to the emission limit levels set by the EPA Industrial Emissions Licence.
- Negative impacts on **human health and population, air and climate** and **biodiversity** arising from construction and decommissioning activities. The proposed development would give rise to minor localised impacts on the surrounding environment and road network due to HGV construction traffic and dust and noise associated with construction activities. The construction phase of the development is 18-24 months in duration. These impacts will be temporary in nature with HGV peak for 12 weeks. These impacts will be mitigated through the adherence to best practice construction measures and the implementation of a final CEMP and C&DWMP. I consider that the construction phase will not have a permanent significant adverse impact on the surrounding road network. Noise disturbance from the operation of the proposed facility has been mitigated with the inclusion of acoustic barriers to protect noise sensitive receptors. I consider that a robust noise assessment has been completed in the EIAR and that the proposed design mitigation to be appropriate.

- Negative impacts on **hydrology** could arise as a result of the release of sediments, which may potentially contain heavy metals or other contaminants. During all phases, water pollution could potentially occur directly from spillages of polluting substances into waterbodies, or indirectly in runoff from hard standing, other sealed surfaces or from construction machinery. Fine sediment may also be distributed into waterbodies directly or also wash off working areas and hard standing (including roads) into waterbodies indirectly via existing drainage systems or overland. This will be mitigated by implementation of the EIAR and final CEMP mitigation measures and compliance with the EPA IE Licence requirements for the facility as reviewed and/or amended and compliance with recommended conditions. The surface water drainage will tie into the existing system at the Tynagh Power Station. Surface water run-off will be routed via oil and silt interceptors into the attenuation tank and then discharge to the former open pit mine using the existing outfall, so no new structures are required.
- In terms of **biodiversity** and **hydrology**, the site contains a small pond which is inhabited by the nationally protected Smooth Newt. If mitigation measures outlined in the EIAR and final CEMP are adhered to, the smooth Newt population will be protected.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures proposed, and subject to compliance with the conditions set out below, the effects of the proposed development on the environment, by itself and in combination with other plans and projects in the vicinity would be acceptable. In doing so, the Board adopted the report and conclusions of the Inspector.

### 23.4 Appropriate Assessment: Stage 1

The Board completed an Appropriate Assessment screening exercise in relation to the potential effects of the proposed development on European sites, taking into account the nature and scale of the proposed development, the

nature of the receiving environment which comprises an industrial area and former mine, the distances to the nearest European sites and the hydrological pathway considerations, submissions on file, the information submitted as part of the applicant's Appropriate Assessment screening documentation and the Inspector's report. In completing the screening exercise, the Board agreed with and adopted the report of the Inspector and that, by itself or in combination with other development, plans and projects in the vicinity, the proposed development would not be likely to have a significant effect on any European site in view of the conservation objectives of such sites, and that a Stage 2 Appropriate Assessment is not, therefore, required.

## 24.0 Conditions

### 24.1 Comments on Conditions

I note that Galway County Council submitted conditions to be considered in the event of a grant of planning permission. I have reviewed the conditions and many come within the scope of the mitigation measures as set out in the EIAR, which is subject to a single condition. However, I have included some additional suggested conditions below.

Please note that in relation to conditions, the operation of the OCGT will be subject to an IE Licence from the EPA. I note the Office of the Planning Regulators (OPR) Practice Note on Planning Conditions (Oct 2022), Section 3.12 which states;

> *'In general, conditions should not be imposed covering issues for which another consent or licence is required e.g., conditions controlling emissions from activities for which an Industrial Emissions Licence, an Integrated Pollution Control (IPC) Licence or a Waste Licence from the Environmental Protection Agency (EPA) is required.'*

Therefore, the conditions set out below reflect this and do not include GCC suggested conditions relating to operational matters, which I consider come under the remit of the IE Licence.

## 24.2 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

   **Reason:** In the interest of clarity.

2. For the avoidance of doubt: -

   (a) The output from the proposed Open Cycle Gas Turbine shall be a maximum of 350MW.

   (b) The operational lifespan the proposed Open Cycle Gas Turbine shall be 25 years, after which the facility shall be decommissioned.

   **Reason:** In the interest of clarity and the proper planning and sustainable development of the area.

3. The mitigation measures identified in the EIAR and other plans and particulars submitted with the planning application, shall be implemented in full by the developer, except as may otherwise be required in order to comply with the conditions of this permission.

   **Reason:** In the interest of clarity and protection of the environment during all phases of the proposed development.

4. The services of a suitably qualified and experienced Ecological Clerk of Works shall be retained to oversee and supervise the entirety of the construction works, and to provide monthly electronic reports to the planning authority

(Planning and Environment Sections) detailing the stage of the works, and compliance with EIAR and CEMP mitigation measures.

**Reason:** In the interest of protecting ecology and wildlife in the area.

5. No removal of vegetation during the breeding bird nest season (March 1st to August 31st).

**Reason:** In the interest of breeding bird protection and biodiversity.

6. The applicant shall maintain and make available for inspection an environmental complaints register for the construction and operational phases of the development.

**Reason:** In the interests of proper planning and sustainable development of the area.

7. All plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

**Reason:** In the interest of the proper planning and sustainable development of the area, and to prohibit the spread of invasive species.

8. Water supply and drainage arrangements, including the treatment of wastewater, attenuation and disposal of surface water and connection to the existing drainage system, shall comply with the requirements of Irish Water and the planning authority for such works and services as appropriate.

**Reason:** In the interest of public health and to ensure a proper standard of development.

9. The construction of the development shall be managed in accordance with a Construction and Environmental Management Plan, which shall be submitted

to, and agreed in writing with, the planning authority prior to commencement of development. The CEMP shall incorporate all of the mitigation measures specified in the Environmental Impact Assessment Report and shall include details and a proposed timeline for any surveys, all monitoring and mitigation measures proposed in the EIAR. It shall also specifically include a method statement in respect of the management of any contaminated soils on site, intended construction practices, including hours of working, noise, vibration and dust management measures, storage of hydrocarbons, chemicals and liquids; site specific risk assessments, details of cut and fill proposals, site specific testing and monitoring for heavy metal contaminants; and off-site disposal of construction, demolition and contaminated waste, which shall be managed in accordance with an agreed Construction and Demolition Waste Management Plan and an up-to-date utilities plan.

**Reason:** In the interests of public safety and residential amenity.

10. The site development and construction works shall be carried out in such a manner as to ensure that the adjoining roads are kept clear of debris, soil and other material and cleaning works shall be carried out on the adjoining public roads by the developer and at the developer's expense on a daily basis.

**Reason:** To protect the residential amenities of property in the vicinity.

11. Prior to commencement of development, a Construction Transport Management Plan for the construction stage shall be submitted to, and agreed in writing with, the planning authority. The traffic management plan shall incorporate details of the road network to be used by construction traffic, including over-sized loads, and detailed arrangements for the protection of bridges, culverts or other structures to be traversed, as may be required. The plan shall incorporate demonstration of sightlines onto public road (L-4310), details of wheel wash facilities, an Up-to-date Road and Bridge Condition Survey, a Falling Weight Deflectometer Survey which indicates all culverts and structures crossed over by HGV's or abnormal weight loads, details for the rectification of any construction damage that may arise, arrangements for the

protection of bridges to be crossed, details of temporary traffic arrangements, details of a phasing programme for construction. The plan should also contain details of how the developer intends to engage with and notify the local community in advance of the delivery of oversized loads. Within 3 months of the cessation of the use of public roads/haul routes, the developer shall complete a road survey and scheme of repair works to be submitted to the Planning Authority for agreement, with works to be completed within 12 months at the developers expense.

**Reason:** In the interest of traffic safety**.**

12. The applicant shall submit details to the planning authority for written agreement to provide and implement a community gain proposal, including any the financial commitments set out therein, which is considered a community gain in accordance with section 37 (G)(7)(d) of the Planning and Development Act 2000, as amended. In default of agreement on any of these commitments, the matter shall be referred to An Bord Pleanála for determination.

**Reason:** To offset the impacts on the local community in the construction phase and to maximise the long-term benefits of the proposed facilities to local residents.

13. Prior to commencement of development, the developer shall lodge with the planning authority a one hundred thousand euro (100,000) bond of an insurance company, a cash deposit, or other security to secure the reinstatement of the affected road which may be damaged by the transport of materials to the site (i.e. from the junction of the L-4310 local road and the N65 national secondary road to the site entrance), coupled with an agreement empowering the relevant planning authority to apply such security or part thereof to the satisfactory reinstatement of the public road.

**Reason:** To ensure the satisfactory completion of the development.

14. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000. The contribution shall be paid prior to the commencement of development or in such phased payments as the planning authorities may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board to determine the proper application of the terms of the Scheme.

**Reason:** It is a requirement of the Planning and Development Act 2000 that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Laura Finn
Senior Planning Inspector

4th September 2024

## Appendix 1 - Form 1 – EIA Pre-Screening

| | |
|---|---|
| **An Bord Pleanála Case Reference** | ABP-317810-23 |
| **Proposed Development Summary** | Open Cycle Gas turbine power plant (350MW) and associated infrastructure |
| **Development Address** | Located on land to the north of Tynagh Power Station, Derryfrench, Tynagh, Loughrea, Co. Galway |

| | | |
|---|---|---|
| **1.** Does the proposed development come within the definition of a 'project' for the purposes of EIA?<br>(that is involving construction works, demolition, or interventions in the natural surroundings) | **Yes** | X |
| | **No** | |

**2.** Is the proposed development of a class specified in Part 1 or Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) and does it equal or exceed any relevant quantity, area or limit where specified for that class?

| | | | |
|---|---|---|---|
| **Yes** | X | Class 2 (a) under Part 1 Schedule 5 of the Planning and Development Regulations 2001 (as amended) '*a thermal power station or other combustion installation with a heat output of 300 megawatts or more'*. | EIA Mandatory |
| **No** | | | Proceed to Q.3 |

**3.** Is the proposed development of a class specified in Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) but does not equal or exceed a relevant quantity, area or other limit specified [sub-threshold development]?

- 

| | | **Threshold** | **Comment (if relevant)** | **Conclusion** |
|---|---|---|---|---|
| **No** | | N/A | | N/A |
| **Yes** | | Class/Threshold….. | | N/A |

**4. Has Schedule 7A information been submitted?**

| | | |
|---|---|---|
| **No** | N/A | **Preliminary Examination required** |
| **Yes** | N/A | **Screening Determination required** |

**Inspector:** **Laura Finn** **Date:** **4th September 2024**