

# Shannon Technology and Energy Park (STEP) Power Plant

Planning Report

**Shannon LNG Limited** 

April, 2024

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## 1. Introduction

This report has been prepared to accompany an application for planning permission made by Shannon LNG Limited, hereafter referred to as 'the applicant' to An Bord Pleanála (ABP) in respect of the proposed Shannon Technology and Energy Park (STEP) Power Plant, hereafter referred to as 'the proposed development'. The proposed development the subject of this application for permission will be located within the townlands of Kilcolgan Lower and Ralappane, between Tarbert and Ballylongford, Co. Kerry and on the Shannon Estuary.

Shannon LNG Limited, trading as Shannon LNG, having its registered address at 32 Molesworth Street, Dublin 2, D02 Y512, is a subsidiary of New Fortress Energy LLC (NASDAQ: NFE). The overall 243 hectare (ha) site, on which the proposed development is located, was purchased in December 2021 by NFE Shannon Holdings Limited, a subsidiary of New Fortress Energy (NFE).

The proposed development has been designated by ABP as Strategic Infrastructure Development (SID) following pre-application consultation between the applicant and ABP undertaken in accordance with the provisions of Section 37B of the Planning and Development Act, 2000, as amended – case ref. ABP-316518-23. The written correspondence from ABP dated 15<sup>th</sup> November, 2023 confirming the proposed development to be SID, as well as the Inspector's Report, are enclosed with the application pack.

The purpose of this planning report is to present an overview of the planning issues associated with the proposed development. It is intended to assist the Board in determining whether the proposed development is in accordance with the principles of proper planning and sustainable development, and accordingly whether planning permission should be granted for the proposed development.

The structure of this planning report is as follows:

Section 1: Introduction

Section 2: Appraisal of the Proposed development

Section 3: Planning Policy and Planning History Appraisal

Section 4: Environmental Appraisal

Section 5: Conclusions

Appendix A

# 2. Appraisal of the Proposed development

# 2.1 Proposed development Site

The proposed development site, which is illustrated in Figure 1-1, is located 4.5 km from Tarbert and 3.5 km Ballylongford in Co. Kerry. The application site boundary (red line) encloses an area of approximately 41 ha and is entirely owned by the Applicant. The Site is in pasture, comprising primarily improved grassland with some wet grassland adjacent to the Shannon Estuary. The field boundaries predominantly consist of hedgerows with small drainage ditches and a small section of the Ralappane Stream is located in the southernmost part of the Site. There are a number of derelict, ruined structures on the proposed development site. The proposed development site is generally undulating, sloping downward to the north towards the coastline, and varies in elevation from 30 to 35m OD along its southern boundary to 5 to 11m OD at the northern edge, where there is a low cliff, typically 2 to 5m in height, above a tidal rock or shingle coastline.

The Site has been identified as a Strategic Development Location (Strategic Development Location H: Tarbert-Ballylongford landbank in the Shannon Integrated Framework Plan 2013-2020 (SIFP), the Regional Spatial and Economic Strategy (RSES) for the Southern Region 2020, the Kerry CDP 2022-2028, and the Listowel Municipal District Local Area Plan 2020. The recently published, 8th July 2023, Shannon Estuary Economic Taskforce also supports the site as suitable for energy developments.

Of importance in the context of the proposed development, there are a number of significant industrial activities and existing and proposed strategic energy infrastructure in the wider area include the currently coal-fired power

station at Moneypoint on the opposite side of the estuary at a distance of approximately 3km; the oil-fired power station at Tarbert c.5km to the east, recently subject to a permission for proposed Open Cycle Gas Turbine (OCGT) power plant fuelled by Hydrotreated Vegetable Oil (HVO); and the Aughinish Alumina refinery approximately 26km to the west at Foynes, where Shannon Foynes Port is also located. In addition, the Kilpaddoge 220 kV substation and the Kelwin-2 26MW battery energy storage system are located approximately 3km to the east of the proposed development site. The 18MW Leanmore Wind Farm, which began operating in 2018, is located c. 2km to the southeast. The proposed development site is also close to national gas and electricity transmission grids, specifically 220 kV and 110 kV electrical transmission available from the Kilpaddoge 220 kV substation, and a GNI owned gas transmission pipeline located approximately 26km from the proposed development site. There is also a recent permission for the installation of 400kV electricity transmission cables between the existing Moneypoint 400kV Substation and the existing Kilpaddoge 220/110kV Substation in the townland of Kilpaddoge County Kerry.

Kerry County Council are also undertaking a widening scheme of the L1010 road in the vicinity of the proposed development site, which is to be completed prior to the start of the main construction elements but may overlap with the enabling works.

The proposed development site itself also previously had the benefit of planning permission for an LNG Terminal and a combined Heat and Power (CHP) plant (both now expired) and has also approval for a gas pipeline connection to the existing natural gas network at Leahy's Co. Limerick. A recent SID application for an LNG Terminal, Power Plant, Battery Energy Storage System (BESS) and AGI was refused planning permission by An Bord Pleanála and is currently the subject of a Judicial Review. A request for pre-application consultation was also recently issued for a proposed strategic gas emergency reserve facility at the proposed development site. There is also a foreshore licence for a drainage outfall pipe at the proposed location.



Figure 2-1 Proposed Development Site (generally outlined in red)

# 2.2 Proposed Development

**Figure 2-2 Proposed Development** 



The Climate Action Plan 2024 commits Ireland to becoming a carbon-neutral economy by no later than 2050. To reach the 2050 milestone, a series of five-year carbon budgets, setting out a carbon reduction trajectory for Ireland, are to be embedded into law. While total annual gas demand will fall under the Climate Action Plan, peak day gas demand will increase as gas will be the only backup to intermittent renewables from 2030. The Climate Action Plan 2024 notes that Ireland will require at least 2 GW of new flexible gas-fired generation by 2030.

Shannon LNG Limited (the Applicant) was awarded a capacity contract on 28<sup>th</sup> March 2023, from EirGrid, to deliver an urgently needed 353 MW of electricity generation capacity by no later than 1<sup>st</sup> October 2026, or any subsequent date approved by the regulator.

The proposed development is necessary to deliver Ireland's Climate Action Plan 2024 policies and support renewables. It will facilitate all remaining oil and coal fired power stations to be decommissioned and to be replaced with the efficient, fast responding Power Plant which is necessary to back up intermittent renewables. Over the last few years, EirGrid have consistently warned of an increasing tightness between electricity supply (i.e. generation) and electricity demand. EirGrid have noted that most new power plants that were expected to come online over the coming years to satisfy increasing demand for electricity have now abandoned their contracts with EirGrid to deliver this power generation capacity.

Specifically, in 2023, 455 MW of power plant have exited their contracts. This is in addition to 630 MW which had exited between 2018 and 2023.

The resulting capacity constraints have forced EirGrid and the Commission for Regulation of Utilities (CRU) to intervene directly in the market by procuring almost 700 megawatts (MW) of temporary emergency generation, which will cost the state more than €1 billion euros2.

EirGrid Chief Executive Officer, Mark Foley before the Oireachtas Joint Committee on Environment and Climate Change on 22<sup>nd</sup> March 2022 stated that "Ireland will need 2,000 MW of dispatchable gas generation by the end of

2026, which will backstop the system and ensure that there is sufficient security of supply, while removing old fossil-intensive plants in the system".

In this context, the Applicant is seeking planning permission for the proposed development (a CCGT gas-powered power plant capable of 600 MW of electricity generation, a 120 MWh (1-hr) BESS and associated infrastructure), on a site located between Tarbert and Ballylongford, Co. Kerry.

A pre-application consultation request was submitted to the Board (24<sup>th</sup> April 2023) for determination of SID status (ABP-316518-23), and the Board determined that the proposed development constitutes SID on 15<sup>th</sup> November 2023.

The main objectives of the proposed development are to:

- 1. Provide 600 MW of fast acting flexible thermal generation capacity to the Irish electricity market.
- 2. Provide a 120 MWh (1-hr) Battery Energy Storage System (BESS) to participate in the electricity ancillary services market.
- To ensure that Shannon LNG's award of a capacity contract on 28<sup>th</sup> March 2023 from EirGrid to deliver 353 MW of electricity generation capacity is delivered at the Site by no later than 1st October 2026, or any subsequent date extension approved by the Regulator.
- 4. To support the provisions of recent national policies with respect to security of electricity supply, including the Climate Action Plan 2024, the National Energy Security Framework 2022, the government's Policy Statement on Security of Electricity Supply 2021 and the recently published 'Energy Security in Ireland to 2030' which all point to the need for a significant uplift in the delivery of flexible gas-fired power generation capacity to 2030.

The proposed development will employ CCGT technology, and its design will comply with all relevant national and international codes. The total installed capacity of the proposed development will be up to 600 MW. Full details on the Proposed development are provided in Chapter 02 (Description of the Proposed Development) of the EIAR.

The proposed development will provide additional and flexible power generation capacity to support intermittent renewable generation and resolve a predicted generation capacity shortfall, in line with national policy goals. For example, during periods of high wind (renewable) generation, it is expected that the Power Plant would be turned down or off by the system operator (EirGrid) to give priority to renewable power.

On 10<sup>th</sup> June 2020 the Commission for Regulation of Utilities (CRU) published their decision on the Enduring Connections Policy (ECP) for generators. ECP-2, which set policy for at least three annual batches of connection offers (ECP 2.1, ECP-2.2, and ECP-2.3). An application to connect to the national electrical transmission network via this 220 kV connection was submitted to EirGrid in September 2020. A Connection Agreement for a 600 MW Maximum Export Connection (MEC) was executed with EirGrid on 14<sup>th</sup> April 2023.

The previously consented 26 km Shannon Natural Gas Pipeline (Planning Reference: PL08.GA0003), once constructed, will facilitate transport of natural gas to the Site from the national gas network at Foynes. Shannon LNG Limited obtained consent in February 2009 for Natural Gas Pipeline under Section 182C (1) of the Planning and Development (Strategic Infrastructure) Act 2006, as amended. The proposed development will also be required to maintain a secondary fuel supply, expected to only be used during an emergency scenario. Low sulphur gas oil is proposed as the secondary fuel supply.

The proposed development will generate power for its own needs and for sale to the market via the national electricity grid exported via a 220 kV connection, which will be subject to a separate planning application. The 220 kV connection will be installed prior to commencing operation of the proposed development. If the 220 kV connection is not available, a medium voltage (10/20 kV) grid connection will be used as a back-up power supply. This connection will be subject to a separate planning application.

The proposed development has a unique location and flexible design that can easily transition to alternative low carbon fuels, subject to future planning applications and once the technology and public policies are established. The modular Power Plant offers flexibility to incorporate alternative fuels.

The proposed development will consist of the following components:

 Three (3 No.) blocks of Combined Cycle Gas Turbines (CCGT), each block with a capacity of approximately 200 megawatts (MW) for a total installed capacity of up to 600 MW.

- A 120 MWh (1-hr) Battery Energy Storage System (BESS).
- Above Ground Installation (AGI) compound.
- High voltage 220 kV Gas Insulated (GIS) Substation.
- Auxiliary Boiler.
- Raw water treatment and storage.
- Structural / Architectural Buildings (various).
- Sewerage drainage system.
- Process effluent collection system and sump.
- Firewater storage tanks and fire water pumps.
- Ancillary buildings.
- Secondary Fuel Offloading storage.

An overall masterplan for the Shannon Technology and Energy Park has been prepared and is submitted for information with the planning application. The Masterplan for the Shannon Technology and Energy Park (STEP) will integrate the proposed development and a (future) Strategic Gas Reserve Facility and a (future) Data Centre Campus. The Strategic Gas Reserve Facility and Data Centre Campus is not included in this application and will therefore be subject to a separate planning application. It is important to note the STEP Power Plant (the proposed development) is not functionally dependent on the Strategic Gas Reserve Facility or the Data Centre, *i.e.* the Power Plant can and will operate without the Strategic Gas Reserve Facility or Data Centre.

As described in the public notices, Shannon LNG Limited gives notice of its intention to seek planning permission from An Bord Pleanála for a 10 year planning permission for the proposed development of the Shannon Technology and Energy Park (STEP) Power Plant, herein referred to as the 'proposed development'. The proposed development the subject of this application for permission will be located within the townlands of Kilcolgan Lower and Ralappane, between Tarbert and Ballylongford, Co. Kerry and on the Shannon Estuary. The proposed development will consist of:

- 1. A proposed Power Plant, which will comprise 3no. turbine halls (approximately 6,175m² each, and approximately 30.145m in height), each containing 1no. Combined Cycle Gas Turbine (CCGT). Each turbine hall will have a capacity of approximately 200MW for a total installed capacity of 600MW. Each turbine hall will comprise:
  - 2no. gas turbines with generators;
  - 2no. heat recovery steam generators (HRSG) with exhaust stacks exiting at approximately 35m in height;
  - 1no. steam turbine with generator and exhaust duct;
  - 1no. electrical equipment room;
  - 1no. auxiliary control room;
  - 1no. Distributed Control System (DCS) room;
  - 1no. batteries room;
  - 1no. standby diesel generator room;
  - 1no. overhead crane;
  - 1no. auxiliary transformer.

Each turbine hall will be linked via 1no. exhaust duct to 1no. Air Cooled Condenser (ACC) (approximately 2,711.9m² each, and approximately 32.605m in height). Each Air Cooled Condenser will comprise:

- 1no. single-storey air cooled condenser (ACC) electrical Power Distribution Centre (approximately 103.7m² and approximately 4.25m in height);
- 1no. condensate collection tank;
- 1no. single-storey condensate polishing equipment enclosure (approximately 103m² and approximately 5.014m in height);
- 1no. single-storey ACC air extraction and equipment enclosure (approximately 196m² and approximately 10.25m in height).

The Power Plant will also include the following ancillary structures:

- 1no. 2-storey electrical (GIS) substation building (approximately 1,096m<sup>2</sup> and approximately 13.5m in height);
- 1no. air cooled heat exchangers structure (approximately 1,292.5m² and approximately 10m in height), with sound retention wall;
- 1no. single-storey workshop/stores/canteen building (approximately 732m² and approximately 8.013m in height);
- 1no. single-storey auxiliary boiler building (approximately 204m² and approximately 13.050m in height)
   and exhaust stack (approximately 32m in height);
- 1no. single-storey central control operations building (approximately 318m² and approximately 6.41m in height);
- 1no. single-storey administration building (approximately 318m² and approximately 5.435m in height);
- 1no. single-storey water treatment building (approximately 630m² and approximately 7.445m in height);
- 1no. single-storey firewater pumps enclosure (approximately 47m² and approximately 7.185m in height);
- 1no. effluent sump;
- 2no. raw/service/fire water storage tanks (approximately 24.15m in height);
- 2no. demineralised water storage tanks (approximately 15.65m in height);
- 3no. generator step-up transformers (each approximately 104m² and approximately 6.04m in height),
   each with a sound retention wall;
- 1no. single-storey fuel gas metering enclosure (approximately 166m² and approximately 5.725m in height);
- 1no. single-storey fuel gas regulating enclosure (approximately 166m<sup>2</sup> and approximately 5.725m in height);
- 1no. single-storey security building (approximately 63.8m² and approximately 3.657m in height);
- 1no. single-storey metering & regulating area kiosk enclosure (approximately 9m² and approximately 3m in height);
- 1no. single-storey metering & regulating area analyzer enclosure (approximately 13.2m² and approximately 3m in height);
- 1no. single-storey metering & regulating area instrument enclosure (approximately 13.2m² and approximately 3m in height);
- 1no. single-storey fuel oil forwarding pump building (approximately 823m² and approximately 6.935m in height);

- 1no. centrifuge and fuel oil unloading pump building (approximately 263m² and approximately 7.185m in height);
- 1no. fuel oil truck unloading area and shelter (approximately 304m² and approximately 8.85m in height);
- 2no. fuel oil storage tanks (approximately 21.15m in height);
- 3no. fuel oil storage day tanks (approximately 15.65m in height); and
- 3no. flue gas heaters (approximately 307.8m² and approximately 5.73m in height).
- A proposed 120 megawatt hour (MWh) (1-hr) Battery Energy Storage System (BESS) (approximately 5,552.7m² and approximately 6.296m in height), which will comprise 27no. battery containers, approximately 4.5 MWh each, containing lithium ion batteries, and ancillary power conversion system (PCS) skids, as well as:
  - 1no. BESS power distribution centre (approximately 37.2m² and approximately 4.25m in height);
  - 1no. BESS step-up transformer (approximately 91.5m² and approximately 5.7m in height); and
  - 1no. BESS auxiliary transformer (approximately 25m<sup>2</sup> and approximately 3m in height) and sound retention wall.
- 3. A proposed Above Ground Installation (AGI) to include:
  - 2no. single-storey chromatograph buildings (approximately 14.19m² and approximately 2.7m in height each);
  - 1no. single-storey control & instrumentation building (approximately 186.7m<sup>2</sup> and approximately 4.29m in height);
  - 1no. single-storey metering building (approximately 480m² and approximately 5.175m in height);
  - 5no. single-storey boiler unit buildings (approximately 42.24m² and approximately 8m in height each);
  - 1no. single-storey regulator building (approximately 243.6m² and approximately 5.27m in height);
  - 1no. single-storey generator kiosk building (approximately 60.72m² and approximately 3.25m in height);
  - The following ancillary structures: heat exchangers; filtering; reverse flow valve arrangement; pig trap; and fuel gas let down units.

The AGI will facilitate the import of natural gas to the national gas transmission network via the already consented 26 km Shannon Pipeline (ABP Reg. Ref. PL08.GA0003 and PL08.DA0003).

4. All ancillary structures/works, including: the demolition of a small farm complex (in ruin), to include 2no. outhouses (in ruin) and a former habitable dwelling (in ruin), a gun emplacement structure (in ruin), a well (in ruin), and a field boundary wall structure (in ruin); 2no. oil/water separators; 1no. retaining wall; 1no. firewater retention pond; utility racks; utility sleepers; 2no. crossover platforms; water supply connection; 1no. electrical grid interface building (indicative) pre-engineered/package biological waste water treatment system and a surface water drainage network, both of which will discharge directly to the Shannon Estuary via a discharge pipe; all car parking, including mobility and EV spaces, and cycle parking; new access off the L-1010 (Coast Road); 2no. culverts; internal roadways; pre-cast concrete bridge over the Ralappane Stream; all temporary construction works, including laydown area; all site development works, including earthworks to create a level platform at +18mOD for the main footprint of the proposed development (excluding the proposed AGI), and landscaping; security fencing and gates, including 2.9m high chain link outer site perimeter fence, a 4m high inner site security fence, internal 2.4m high palisade fencing and external 2.995m high weld mesh fencing for the AGI; CCTV cameras; telecommunications connections; and all lighting.

Both an Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) have been prepared in respect of the proposed development and accompany this application for permission.

The proposed development relates to development which comprises an activity requiring an Industrial Emission Licence.

The proposed development is an establishment for the purposes of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances (COMAH)) Regulations 2015 (S.I.209 of 2015). The COMAH Regulations implement the latest version of the 'Seveso III' Directive (Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012).

The key development statistics are set out in Table 2-1 below.

**Table 2-1 Development Statistics** 

Statistic	Detail <sup>1</sup>
Site Area	41ha
Demolition	51.71m <sup>2</sup> , to include:
	Farm complex (48.67m <sup>2</sup> ) Well (3.04m <sup>2</sup> )
	(Gun Emplacement and field boundary wall structure
	also to be demolished)
Proposed development – Buildings and Enclosures	35,576.1m <sup>2</sup> relates to the Power Plant Buildings and
-	Enclosures, to include:
	3no. turbine halls (6,175m² each)
	3no. air cooled condensers (ACC) (2,711.9m² each), to
	also include 3no. electrical Power Distribution Centres
	(103.7m² each), 3no. condensate polishing equipment
	enclosures (103m² each), and 3no. ACC air extraction
	and equipment enclosures (196m² each)
	1no. electrical (GIS) substation building (1,096m²)
	1no. air cooled heat exchangers structure (1,292.5m <sup>2</sup> ) 1no. workshop/stores/canteen building (732m <sup>2</sup> )
	1no. auxiliary boiler building (752m²)
	1no. central operations building (318m²)
	1no. administration building (318m²)
	1no. water treatment building (630m²)
	1no. firewater pumps enclosure (47m²)
	3no. generator step-up transformers (104m² each)
	1no. single-storey fuel gas metering
	enclosure (approximately 166m²)
	1no. single-storey fuel gas regulating
	enclosure (approximately 166m²)
	1no. single-storey security building
	(approximately 63.8m <sup>2</sup> )
	1no. single-storey metering & regulating
	area kiosk enclosure (approximately 9m²)
	1no. single-storey metering & regulating
	area analyzer enclosure (approximately 13.2m²)
	1no. single-storey metering & regulating
	area instrument enclosure (approximately 13.2m²)
	1no. single-storey fuel oil forwarding pump
	building (approximately 823m²)
	1no. centrifuge and fuel oil unloading pump
	building (approximately 263m²)
	1no. fuel oil truck unloading area and shelter
	(approximately 304m²), and

<sup>&</sup>lt;sup>1</sup> All areas referenced are approximate

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	3no. flue gas heaters (approximately 307.8m²)
	5,706.4m² relates to the Battery Energy Storage System, to include:  1no. BESS (approximately 5,552.7m²)  1no. BESS power distribution centre (approximately 37.2m²)
	1no. BESS step-up transformer (approximately 91.5m²) 1no. BESS auxiliary transformer (approximately 25m²)
	1,210.6m <sup>2</sup> relates to the AGI, to include:
	2no. single-storey chromatograph buildings (14.19m² each)
	1no. single-storey control & instrumentation building (186.7m²)
	1no. single-storey metering building (480m²) 5no. single-storey boiler unit buildings (42.24m² each) 1no. single-storey regulator building (243.6m²) 1no. single-storey generator kiosk building (60.72m²) Ancillary structures to include: 2no. odorant tanks; heat exchangers; filtering; reverse flow valve arrangement; pig trap; and fuel gas let down units.
Proposed development - Tanks	Power Plant tanks, to include:  2no. raw/service/firewater tanks (6,107.3m³ each)  2no. demineralized water tanks (2,057.4m³ each)  2no. fuel oil storage tanks (5,343.8m³ each)  2no. fuel oil storage day tanks (2,057.4m³ each)
Proposed development – Equipment & Structures	Ancillary equipment & structures for the Power Plant relates to utility racks.
Employees	Construction – up to 1,070 no. employees at peak period Operation – 34no. employees
Car Parking Spaces	42no. spaces during operation (of which 2no. are disabled spaces and 2no. are EV spaces)
Cycle Spaces	40no. cycle spaces

The principal materials for the proposed buildings and structures are set out in Table 2-2:

**Table 2-2 Proposed Materials** 

Proposed Building/Structure	Proposed Materials/Colours
Power Plant Building and Enclosures and Tanks and Equipment	Walls: composite PVC/Plastisol laminated insulated vertical profiled modular steel cladding. Colour: Olive Green RAL 6003
	Fascias & Trims, including doors, windows, ventilation openings & services penetration frames. Colour: Traffic Grey RAL 7043
	Roof: composite PVC/Plastisol laminated insulated membrane with integral steel support decking. Colour: Chrome Green RAL 6020
	Tanks and equipment: equipment and sound walls: Colour Olive-grey RAL 606

Retaining Wall	Concrete - unpainted			
Utility racks and sleepers	Galvanised steel - unpainted			
AGI structures	Chromatograph Building: GRP Panel. Colour: Olive Green RAL 6003 Control & Instrumentation Building: Nordman Tile Sheeting Chrome Green RAL 6020 Metering Building: Corrugated Roof Sheeting. Colour: Chrome Green RAL 6020; GRP Panel. Colour: Olive Green RAL 6003 Regulator Building: Nordman Tile Sheeting Chrome Green RAL 6020; NAP Plaster finish. Colour: Olive Green RAL 6003 General Kiosk Building: Corrugated Roof Sheeting. Colour: Chrome Green RAL 6020; GRP Panel. Colour:			
	Olive Green RAL 6003			

The proposed development will be regulated by the following bodies:

- Environmental Protection Agency;
- Commission for Regulation of Utilities;
- Health and Safety Authority; and
- Kerry County Council

In addition to planning permission from An Bord Pleanála, the proposed development will require a number of permits/licences/authorisations, including:

Table 2-3 Permits/Licences/Authorisations required for the proposed development

Permit/Licence/Authorisations	Awarding Body		
Industrial Emissions Directive (IED) Licence <sup>2</sup>	Environmental Protection Agency (EPA)		
Authorisation to construct the proposed Power Plant (and back-up power generation)	Commission for Energy Regulation (CRU)		
Licence to generate electricity for the proposed Power Plant (and backup power generation)	Commission for Energy Regulation (CRU)		
A Major Accident Prevention Policy (MAPP)	Health and Safety Authority		
Pre-Construction Notice	Health and Safety Authority (HSA)		
Surface Water Drainage Discharge Licence	Kerry County Council		
Commencement Notices	Kerry County Council		
Fire Safety Certificates	Kerry County Council Fire Brigade		
Disability Access Certificates	Kerry County Council		
Section 50 Consent (Consent to construct a culvert)	Office of Public Works (OPW)		
Section 254 Road Opening Licence	Kerry County Council		
Archaeological Licences	National Monuments Service		

Subject to planning consent and other approvals an anticipated start date of January, 2026 is taken as a construction start date (however this is subject to change). It is envisaged that the initial construction phase will last approximately 32 months, with an additional 6 months' commissioning prior to operation.

The construction phase will comprise:

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Enabling, earthworks and site preparation.

<sup>&</sup>lt;sup>2</sup> The conditions of an IE licence require that the emission limit values must be based on the Best Available Techniques (BAT). A BAT assessment has been prepared, and the Proposed development will comply with the assessment findings.

- Construction of the 220 kV and medium voltage (10 / 20 kV) connections.
- Construction of the Power Plant blocks and AGI.
- Construction of the drainage outfall.

The proposed location of the construction compound will be entirely within the site of the proposed development. The construction compound will be secured with temporary fencing and will accommodate employee parking, canteens, offices, medical, changing, and welfare facilities, drying rooms and temporary services on the Site.

Construction traffic will access the site via a new priority junction and right turn pocket along the upgraded L1010 road.

During the construction phase of the proposed development, electricity will be supplied via a series of portable site units prior to the medium voltage electricity connection becoming available.

Foul water from the site offices, canteens, toilets and showers will be collected in tanks and self-contained toilet units for removal by road tanker by a licensed haulier to a licensed facility.

Water will be required for the construction personnel, for general construction works and for wheel wash facilities and dust suppression. It is anticipated that the water supply will be obtained from a water main along the L-1010 road.

A Construction Environmental Management Plan (CEMP) has been produced as part of this planning submission. A Contractor's CEMP will be prepared by the EPC Contractor.

The proposed development is expected to have a design life of 25 years, but this could be extended by maintenance, equipment replacement and upgrades or by the transition of the site to hydrogen (which will be subject to a future planning application). It is expected that it would be a condition of IED Licence for the proposed development that a closure and residuals management plan, including a detailed decommissioning plan, be submitted to the EPA for their approval.

Given the nature and extent of the proposed development, the nature and extent of the consents required to be in place to be able to construct the proposed development, if permission is granted, and the proposed construction strategy as outlined in Chapter 2 of the EIAR, a 10 year permission is being sought in this instance.

Chapter 2 of the EIAR describes the nature and extent of the proposed development in detail.

Figure 2-3 Proposed Site Layout Plan

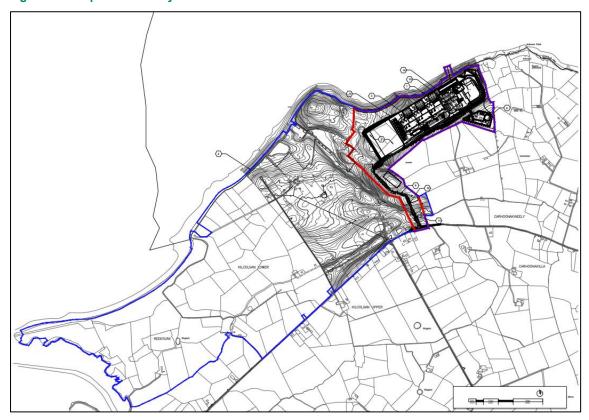


Figure 2-5 Proposed BESS and Power Plant (Part 1)

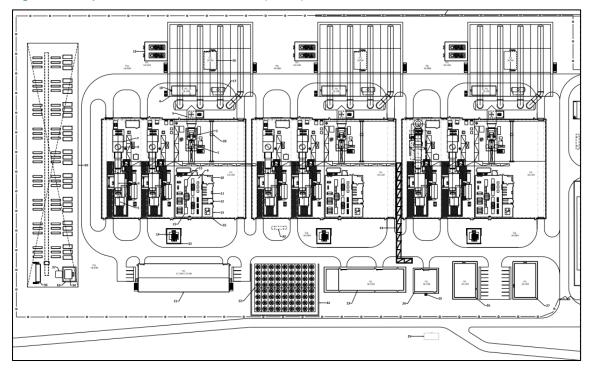


Figure 2-6 Proposed Power Plant (Part 2)

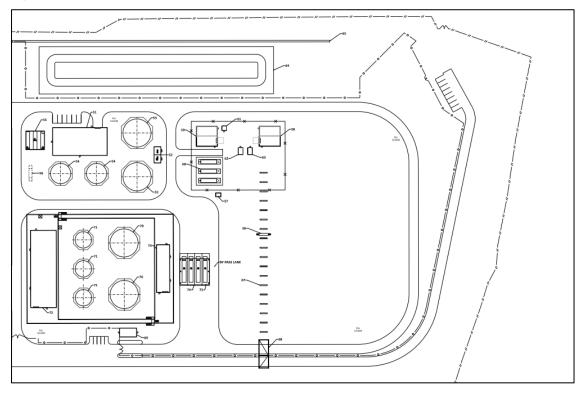
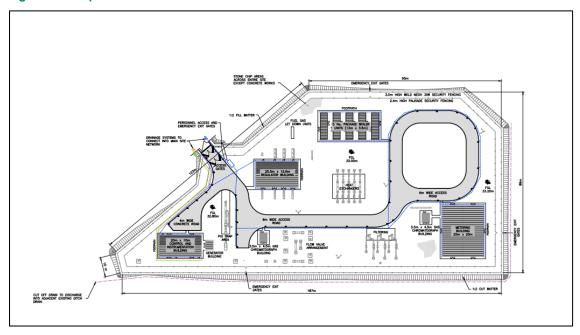


Figure 2-7 Proposed AGI



Figures 2-4 to 2-7 illustrate the nature and extent of the proposed development. It is considered that:

- The proposed development is characteristic of an industrial development of the nature and form proposed;
- The proposed development has a relatively concentrated footprint within the overall landholding;
- The proposed development is logically configured, with the power station and battery storage adjacent, and the AGI located close by, but separated from the Plant to meet Gas Networks Ireland (GNI) operational requirements.

As demonstrated in Figures 2-8 to 2-15, the proposed development can be successfully absorbed into the existing landscape, being a form of development that is contemplated by the Strategic Development Location (SDL) zoning objective of the Kerry County Development Plan 2022-2028 that applies to the site, recognised in the Development

Plan for its potential as an Energy Hub and for industrial development at a regional and national level, as also envisaged in the Regional Spatial and Economic Strategy for the Southern Region 2020, the Shannon Integrated Framework Plan 2013, and the Listowel Municipal District Local Area Plan 2020, and having regard to the planning history of the proposed development site, and the pattern of development in the vicinity.

Figure 2-8 Existing Photomontage: View 2 from the south of the proposed development site, looking northeast



Figure 2-9 Proposed Photomontage: View 2 from the south of the proposed development site, looking north-east



Figure 2-10 Existing Photomontage: View 4 from the west of the proposed development site, looking east



Figure 2-11 Proposed Photomontage: View 4 from the west of the proposed development site, looking east



Figure 2-12 Existing Photomontage: View 12 from the north of the proposed development site, looking south (night time)



Figure 2-13 Proposed Photomontage: View 12 from the north of the proposed development site, looking south (night time) (lights on)



Figure 2-14 Existing Photomontage: View 15 from the east of the proposed development site, looking west



Figure 2-15 Proposed Photomontage: View 15 from the east of the proposed development site, looking west



# 2.3 Need for the Proposed development

Chapter 3 of the EIAR explains in detail the need for the proposed development in the context of current energy policy as elaborated in Chapter 4 of the EIAR.

The need for the proposed development is set out as follows:

- The Proposed Development will address Ireland's security of energy supply risks, supports intermittent renewable generation, and resolves a predicted generation capacity shortfall.
- As electricity from renewable sources increases, a simultaneous increase in electricity demand, and closure of coal, oil and peat-fired electricity generation, means that natural gas is predicted to play an increasingly important role as a backup fuel.
- The Government's National Energy and Climate Plan 2021-2030 forecasts that natural gas demand will increase from 4.4 million tonnes of oil equivalent to between 6.38 to 8.06 million tonnes of oil from now until 2040. Renewable energy generation is weather dependent, and its output fluctuates considerably. For this reason, conventional power plants are required to fill the fluctuating gap between electricity demand and renewable generation. Natural gas is the only major energy source currently available to back-up renewable generation and thereby maintain a resilient electricity supply to the country while supporting the transition to 80% renewable generation by 2030.
- The Climate Action Plan 2024 (December 2023) commits Ireland to becoming a carbon-neutral economy by no later than 2050. A key component of meeting this reduction target is the decarbonisation of electricity generation in Ireland. To drive this change, Ireland has set a target to generate 80% of grid electricity from renewable sources by 2030, largely from wind. To allow this uptake of renewable energy to happen it is necessary to have in place back up sources of energy generation that can be efficiently dispatched when the wind is not blowing. Flexible gas-powered generation is a critical part of that strategy, given the highly variable nature of wind energy generation.

# 2.4 Alternatives Appraisal

Chapter 3 of the EIAR sets out the alternatives considered for the proposed development.

The location of the proposed development was selected to minimise overall land take and to minimise environmental impact including:

- · Reduced impacts on biodiversity by reducing the overall footprint.
- Reduced visual impact.
- Optimised platform level at 18m OD by balancing cut / fill requirements.
- Reduced impacts on Cultural Heritage assets.
- Reduction in carbon sequestration.

Alternative Power Plant technologies were also considered. Technology options considered against the proposed multi-shaft combined cycle configuration included:

- Combined heat and power.
- · Open cycle gas turbines.
- Single-shaft Combined Cycle Gas Turbine.
- Multi-shaft Combined Cycle Gas Turbine.

In determining the optimum configuration, studies and extensive consultation were carried out to identify the key functional requirements of the power generation capability to be developed:

- 1. Be capable of fast response to sudden instructions from the System Operator to support intermittent wind generation.
- 2. Enable low minimum stable generation to allow the System Operator to keep units on the system at a minimum level to ensure a sufficient level of system inertia is maintained.

- 3. Natural gas fuelled to meet with national Climate Change Policies and objectives.
- 4. Be able to accommodate faster or slower than forecast development of renewables power generation, and consequently be flexible in build out.
- 5. Support transitioning to deliver Ireland's net zero carbon emission by 2050 ambition.

In summary, the proposed Power Plant is the most efficient, flexible and reliable option with the lowest CO<sub>2</sub> emissions profile of the alternatives considered.

#### 2.5 Consultation

Chapter 1 of the EIAR sets out the extent of consultation undertaken in respect of the proposed development, to include with Kerry County Council (including the Fire Department), the NPWS, EirGrid, CRU, EPA, Shannon Foynes Port Company, the HSA, IFI, Irish Whale and Dolphin Group, National Monuments Services and the Tarbert, Ballylongford and Kilcolgan Residents Association. Feedback from this consultation has informed the planning application, EIAR and NIS.

Pre-application consultation was undertaken with Kerry County Council Planning Department on 22<sup>nd</sup> November, 2023. No issues were raised.

The applicant engaged in pre-application consultation with An Bord Pleanála on 24<sup>th</sup> April, 2023 and 28<sup>th</sup> September, 2023, (ABP Reference ABP-316518-23). The Board's Notice of 15th November 2023, which included a list of prescribed bodies which have been notified of the application for the proposed development, concluded that: 'under Section 37B(4)(a) of the Planning and Development Act 2000 (as amended) that it is of the opinion that the Proposed development falls within the scope of paragraphs 37A(2) (a), (b) and (c) of the Act. Accordingly, the Board has decided that the Proposed development would be strategic infrastructure within the meaning of Section 37A of the Planning and Development Act 2000 (as amended). Any application for permission for the Proposed development must, therefore, be made directly to An Bord Pleanála under Section 37E of the Act'.

# 3. Planning Policy and History Appraisal

# 3.1 Planning Policy Appraisal

Chapter 4 of the EIAR sets out in detail the key provisions of national, regional and local planning policy which underpin the proposed development, the key considerations of which are as follows:

#### 3.1.1 National Planning Framework 2018 (NPF)

- National Strategic Outcome (NSO) 8 Transition to a Low Carbon and Climate Resilient Society, of the NPF states:
  - "Ireland benefits from interconnection with the UK gas pipeline network and while there are two gas pipelines with two separate entry points into the island of Ireland, both pipelines are connected through a single facility in Moffat, Scotland."
- Critically, NSO 8 also notes that:
   "In addition, our gas storage capacity is limited, which poses a security of supply risk and constrains smoothing of seasonal fluctuation in gas prices."
- In this context, Ireland's energy security regarding gas is precarious in terms of the current infrastructure connecting Ireland to the UK gas pipeline network but also geo-politically, as the UK is no longer a member of the EU. Therefore, ensuring autonomous gas supply and storage separate from being reliant on the UK is of paramount importance.

The proposed development effectively responds to NSO 8 of the NPF – it will provide an alternative source of gas supply to address supply risk concerns.

#### 3.1.2 National Development Plan 2021-2030 (NDP)

The NDP states that NSO 8 is central to all other elements of spatial policy.

With regard to delivering on NSO 8 and facilitating the transition to a climate-neutral and climate-resilient society, the NDP is explicit that one of the Government's Strategic Investment Priorities regarding Commercial Sector Investment includes enhanced electricity interconnection, including the Celtic Interconnector to France and further interconnection to the UK, along with the following:

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

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

# 3.1.3 Strategic Integrated Framework for the Shannon Estuary 2013-2020 (SIFP)

- While the SIFP is not a statutory plan itself, the SIFP has since been incorporated into the Clare CDP 2023-2029 Volume 9 and the Limerick Development Plan 2022-2028 Volume 6, while the Kerry CDP 2022-2028 contains policies which support the sustainable development of the Shannon Estuary, in line with the SIFP and the recommendations of its environmental assessment, recognising the estuary's potential as an Energy Hub. The Regional Spatial and Economic Strategy for the Southern Region (Southern RSES) also contains policy and objectives which support and promote the realisation of the policies and recommendations of the SIFP.
- As illustrated in Figure 3-1, the site of the proposed development is located in one of nine strategic development locations identified in the Shannon Integrated Framework Plan: "Strategic Development Location H: Tarbert-Ballylongford land bank, Ballylongford".
- SIFP Development Objective MRI 1.2.13 relates to the Tarbert-Ballylongford Land Bank and is as follows:
  - 'To promote and facilitate the sustainable development of these lands for marine related industry, utilising the presence of deep water, existing infrastructure, natural resources, and waterside location to harness the potential of this Strategic Location. Alternative proposals for general industrial development, compatible or complementary with marine related industry, with the level of flood risk, and those creating a synergism with existing uses, and contributing to the development of a strategic energy hub at this location will also be encouraged. Development will be subject to compliance with the criteria set out in Objective SIFP MRI 1.2.'
- The criteria set out in Objective SIFP MRI 1.2, and the compliance of the proposed development with same, are as follows:

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

- The individual development objectives outlined in this Plan for the Strategic Development Locations: The proposed development is located in the Tarbert-Ballylongford Land Bank, Strategic Development Location H as identified in the SIFP;
- The objectives and requirements of the Habitats Directive specifically Article 6(3) and where necessary 6(4), Birds, Water Framework, and all other relevant EU Directives: The proposed development is subject to EIA, which has determined that there are no significant impacts, and AA, which has determined no adverse effects on either the River Shannon and River Fergus Estuaries SPA or the Lower River Shannon SAC;
- All relevant principles of proper planning, flood risk, sustainability and environmental considerations, including the mitigation measures referenced in this Plan (Volume II Appendices) the proposed development is not located in any area of the site that is at risk of flooding, is consistent with national, regional and local planning policy, has a demonstrable need in assisting with the transition to a low carbon society, can generally be successfully absorbed into the receiving environment without significant effect, and is in the interests of the proper planning and sustainable development of the area.
- Section 5.6.4 of the SIFP states:

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

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

- The SIFP is unequivocal that a strategic energy hub has become established within the Shannon Estuary by virtue of the presence of both the Moneypoint and Tarbert power stations, with this hub facilitating the growth of strategic grid infrastructure and other synergistic industries such as renewable energy and combined heat and power. The SIFP builds on existing industry connectivity, synergy and existing infrastructure to create a more sustainable and attractive network for investment.
- In this respect, and in recommending a grant of permission for the Power Plant element of the recent LNG Import Terminal & Power Plant proposal for the subject site, ABP Ref. No. 311233-21, the Inspector noted in Section 13 of his report that the proposed 600MW power generation plant is aligned with local and regional planning policy and land use objectives, and is supported by national energy and climate policy which identifies a requirement for additional conventional generation capacity as a priority.
- In addition, the Inspector noted in Section 14 of this report that:
  - The development accords with the relevant policy at a European, National, regional and local level. It will provide conventional power generation capacity in line with the provisions of the Climate Action Plan 2023, which would facilitate the transition to a more renewables based national electricity system. The proposed power generation development has been designed to provide an efficient and flexible plant in line with current design standards, which combined with the proposed battery energy storage facility, will facilitate its role as a back-up to a renewables-based electricity grid.
  - While it is acknowledged that the operational of the development would generate greenhouse gas emissions, the need for such generation capacity is recognised as a national priority in the Government Policy Statement on Security of Electricity Supply, notwithstanding an overall commitment in the Climate Action and Low Carbon Development (Amendment) Act 2021 to becoming a carbon-neutral economy by 2050. When taken in context, and noting the need and policy support for the proposed development including consistency with the relevant provisions of the Climate Action Plan 2023, significant negative impacts on the global climate receptor are not likely.
  - While there will be landscape and visual impacts associated with the proposed development, in the context of the surrounding pattern of development and the long term objectives for the development of these lands, such impacts are not considered to be significant adverse.
  - Significant ecological effects are not anticipated arising from the proposed power plant. Direct
    impacts on habitats are limited and are not considered to adversely affect the conservation
    objectives of European Sites. Low numbers of estuarine birds were recorded in the vicinity of the
    site, and there is noted to be limited intertidal foraging habitat of value along the shore, while the
    site itself provides limited foraging potential. Negative impacts on terrestrial flora and fauna, and
    habitats within the site will be localised, negative but not significant.
  - Overall, it is reasonable to conclude that the consequences for the proper planning and sustainable development of the area would be largely acceptable. While there are negative local impacts, these are not regarded as outweighing the benefits arising and it is therefore concluded that there is a clear justification in favour of granting approval for the proposed:
    - 600 MW power plant and associated structures.
    - 120 MW battery energy storage system, and ancillary development.
    - Proposed Above Ground Installation (AGI) and ancillary structures, and

- All ancillary works."
- It is noted, however, that the Board, in refusing permission for both the LNG Import Terminal & Power Plant proposal for the subject site, ABP Ref. No. 311233-21, determined that only permitting the Power Plant aspect of that proposed development would render the residual development a materially different proposal at this location adjoining the Shannon estuary and which would warrant at the least a full review in terms of compatibility with overarching policy for the area, noting for example objective MRI 1.2.13 of the 'Strategic Integrated Framework Plan for the Shannon Estuary' (SIFP) which seeks 'to promote the sustainable development of these lands for marine related industry, utilising the presence of deep water and the waterside location to harness the potential of this Strategic location.'
- In arriving at this decision, the Board only had part regard to objective MRI 1.2.13 of the SIFP. As noted above, the full objective MRI 1.2.13 goes on to state that: Alternative proposals for general industrial development, compatible or complementary with marine related industry, with the level of flood risk, and those creating a synergism with existing uses, and contributing to the development of a strategic energy hub at this location will also be encouraged. Development will be subject to compliance with the criteria set out in Objective SIFP MRI 1.2.' The Board's decision had no regard to the totality of objective MRI 1.2.13 of the SIFP. It is our submission that the proposed development is an industrial development that is compatible and complementary with marine related industry, similar in nature, scale and location to other power plants operating along the coast across the country in the vicinity of marine related activity. The proposed development is also not located in any area of the site that is at risk of flooding. It will also create a synergy with existing industrial / energy uses in the area. It is therefore considered that the proposed development aligns with the SIFP, in particular SIFP Development Objective MRI 1.2.13, in that it is either an alternative proposal for general industrial development that is compatible or complementary with marine related industry, or a synergistic use, having regard to the existing established energy infrastructure in the area, and will contribute to the further development of the Shannon Estuary strategic energy hub.

Figure 3-1: Location of the proposed development site in the Tarbert-Ballylongford land bank (generally identified in red)



 The Shannon Integrated Framework Plan (SIFP) is unequivocal in its support for the proposed development, both in terms of the suitability of the site as a Strategic Development Location, and the importance of the proposed development to the economic wellbeing of the region.

# 3.1.4 Southern Assembly Regional Spatial and Economic Strategy (RSES) January 2020

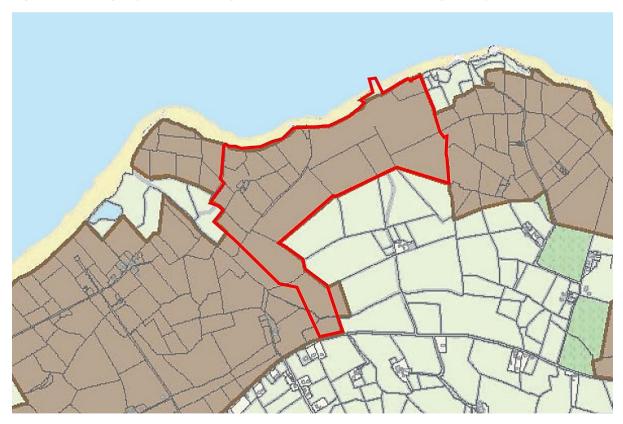
- The RSES emphasises the key significance of the previously permitted LNG regasification terminal scheme for the development and prosperity of this peripheral region. The RSES states the following:
  - "The zoned lands at Tarbert/Ballylongford in North Kerry with extant planning for strategic energy and marine related industry including the Shannon Gas LNG project are a further example of the regional and national potential of the location."
- The previously permitted LNG scheme, in combination with the associated permitted Combined Heat and Power Plant scheme, are also referenced as a nationally important project in the RSES with regard to energy hubs under the Gas Networks Ireland section of the "Water and Energy Utilities" chapter:
  - "The Tarbert-Ballylongford lands in Co Kerry comprise of 390 hectares of lands zoned for marine-related industry and compatible industries. Planning permission exists at the location to build a Liquified Natural Gas (LNG) importation and storage terminal on a portion of the site. The proposal included a 500MW Combined Heat and Power (CHP) plant, a 26km pipeline and permitted connection to the natural gas grid. It is anticipated that the project would position the area as a major National Centre for CHP and facilities requiring access to deep water with substantial requirements for electricity and natural gas."
- The RSES contains a number of Regional Planning Objectives (RPOs) of which Objective RPO 225 seeks to:
  - "e. Strengthen the gas network sustainably to service settlements and employment areas in the Region, support progress in developing the infrastructures to enable strategic energy projects in the Region. An example is the Tarbert/Ballylongford landbank in Co Kerry which is a strategic development site under the Strategic Integrated Framework Plan for the Shannon Estuary and support for the extension of the Gas Network from Listowel into the Kerry Hub and Knowledge Tri-Angle settlements of Tralee, Killarney and Killorglin."
- In relation to the potential for energy and renewable energy production in the South West Strategic Planning Area, the RSES states:
  - "Example of an opportunity: Tarbert- Ballylongford Landbank LNG and CHP Project, a key site identified in the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary."

The RSES for the Southern Region fully endorses the provisions of the SIFP with respect to the Tarbert/Ballylongford strategic landbank, and supports the development of energy infrastructure at this location.

#### 3.1.5 Kerry County Development Plan 2022-2028

- The Kerry CDP 2022-2028 is the local-level statutory plan containing development policy and objectives regarding managing the development of the Site of the Proposed development.
- Under the Development Plan, the Site is part of 430.6 hectares of land which have access to deep water *i.e.*, up to 23 m and which are zoned as a Strategic Development Location (SDL). This SDL is recognised in the Development Plan for its potential as an Energy Hub and for industrial development at a regional and national level.

Figure 3-2: Zoning Objective pertaining to the proposed development site (generally identified in red)



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

#### '3.5.1.4 North Kerry / West Limerick / Shannon Estuary / Clare Settlement Network

Kerry County Council supports the economic role and potential of the established towns of Listowel, Abbeyfeale, Newcastle West (Key Town) and Kilrush as economic drivers in a potential North Kerry/West Limerick/Clare network connected with the Shannon Estuary referred to as the North Kerry/Shannon Estuary Network. This includes the Shannon Integrated Framework Plan (SIFP) area and strategic locations identified under the SIFP as a Shannon Estuary Coastal Network. This area is viewed as a driver for economic growth within the County and Region. There is potential for innovative projects, collaboration between stakeholders and sectors, infrastructure projects (including multi-modal transport infrastructure, more frequent public transport services and digital connectivity) to/ from and within the network to unlock the strengths and opportunities. This includes the County's Regional Town of Listowel, Ballybunion and support for economic interaction with the AEC, Strategic Development Sites in the Shannon Estuary, the Kerry Hub and Knowledge Triangle and cross county boundary connectivity to other settlements in a network 11 (including Newcastle West in Limerick as a Key Town, Port of Shannon Foynes, Limerick-Shannon Metropolitan Area etc).'

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

#### 'KCDP 9-23

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

#### 'KCDP 9-24

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

#### 'KCDP 9-25

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

#### **'KCDP 12-1**

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

#### 'KCDP 12-3

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

#### **'KCDP 12-36**

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

• Section 12.1 of the Development Plan includes the following statement:

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

- Section 12.2 of the Development Plan supports the strengthening of the gas network "to progress development of infrastructure to enable strategic energy projects in the county, including the Tarbert/Ballylongford Landbank".
- Section 11.2.6 of the Development Plan states the following with regard to green and blue infrastructure and ecological corridors:

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

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

The proposed development is also supported by Development Plan objectives:

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

#### 3.1.6 Clare County Development Plan 2017-2023

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

#### 'Development Plan Objective: Shannon Estuary CDP6.10

It is an objective of Clare County Council:

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

#### 11.8.2 Energy Security

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

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

Moneypoint;

Tarbert;

Tarbert-Ballylongford land bank; and

Aughinish Alumina.'

#### 'Development Plan Objective: Energy Security CDP11.44

It is an objective of Clare County Council:

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

#### Development Plan Objective: Gas Networks CDP11.46

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

#### 'Development Plan Objective: Energy Storage CDP11.51

It is an objective of Clare County Council:

- a) To support and facilitate the development of secure, appropriately scaled energy storage facilities, particularly green hydrogen gas storage and pumped freshwater hydro energy storage, at suitable locations throughout the County, in compliance with the requirements of Objective CDP3.3 of this plan; and
- **b)** To support initiatives to develop innovation, advances in technology and pilot projects for the sustainable development of energy storage and carbon capture within the Region and to work with key stakeholders in developing sustainable forestry to support carbon sequestration and enhance biodiversity.'

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

It is an objective of Clare County Council:

- a) To support and implement the inter-jurisdictional Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary in conjunction with the other relevant local authorities and agencies. All proposed developments shall be in accordance with the SEA Directive, Birds and Habitats Directives, Water Framework Directive and Shellfish Waters Directive, Floods Directive and EIA Directive. All proposed developments shall incorporate the Mitigation Measures as contained in the SIFP (Volume 9 of this plan) for ensuring the integrity of the Natura 2000 Network.
- **b)** To proactively market the Strategic Development Locations in County Clare at Inishmurry / Cahiracon and Moneypoint as potential locations for future economic development.'

#### '12.2.1 Integrated Development of the Shannon Estuary

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

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

It is an objective of the Clare County Council:

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

#### '12.2.2 Strategic Development Locations

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

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

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

It is an objective of Clare County Council:

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

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

#### '12.4 Harnessing the Energy Resource of the Shannon Estuary

Clare County Council recognises that the Shannon Estuary is long established as a major contributor to the national energy supply market. Energy development within the Shannon Estuary must be considered in the context of the multi-functional nature of the Estuary area and the competing requirement to safeguard the nature conservation obligations of international standing. The context is also provided by national energy policy in respect of security of supply, the national requirement to transition to a climate neutral economy no later than 2050, the existing energy infrastructure in the region, the need to upgrade infrastructure for the delivery and expansion of the electricity and gas networks, and the technical capacity of the Estuary to accommodate growth in the energy sector.'

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

It is an objective of Clare County Council:

- **a)** To ensure that the Shannon Estuary fulfils its optimum role in contributing to the diversity and security of energy supply;
- **b)** To harness the potential of the Estuary for the sustainable development of renewable energy sources to assist in meeting renewable energy targets.
- c) To contribute to a working group on Research, Education and Training to map research capabilities, human capacity, national and international connections and opportunities with respect to renewable energy.
- (d) To ensure that all proposed developments shall be in accordance with the Birds and Habitats Directive, Water Framework Directive and all other relevant EC Directives.
- (e) To ensure that all development associated with the energy sector shall incorporate the sector and site-specific Mitigation Measures as contained in the SIFP (Volume 9 of this plan) for ensuring the integrity of the Natura 2000 Network.'
- Consistent with the Shannon Integrated Framework Plan, these key provisions and policies of the Clare CDP 2023-2029 endorse the strategic role and function of the Shannon Estuary in supporting marinerelated industry, and specifically reference the cluster of industrial activity in the Tarbert / Ballylongford Strategic Development Location. The important role of the Shannon Estuary in the diversity and security of energy supply in the region is also acknowledged.

#### 3.1.7 Shannon Estuary Economic Taskforce

- The Shannon Estuary Economic Taskforce was established on 21<sup>st</sup> April 2022, with the twofold objective
  to create a long-term vision for the region and to outline a practical action plan to realise it. Section 2.5
  Retaining Employment Gains by Enabling Secure, Affordable Decarbonisation of Industry states
  that:
  - In the case of natural gas, the Taskforce recognises that this is considered a green transition fuel by the EU since 2021 and its use is encouraged 'to allow us to accelerate the shift from more polluting activities, such as coal generation, towards a climate neutral future, mostly based on renewable sources'.

#### 3.1.8 Listowel Municipal District Local Area Plan 2020-2026

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

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

- In addition, section 2.3.3 of the LAP states that the previously permitted LNG regasification terminal and the permitted Combined Heat and Power Plant scheme are considered to be a solution to the established trend of rural decline in the locality of Ballylongford:
  - "The industrial land known as the Tarbert/Ballylongford Land Bank is approximately 2km to the north of [Ballylongford] village and comprises 398 hectares. On part of this site planning permission has been granted for a liquefied natural gas (LNG) import terminal. This development would, over a three year period, provide approximately 650 construction jobs and on completion 50 permanent jobs. Planning permission has also been granted for a Combined Heat & Power Plant which will, if developed result in the creation of additional employment. The Ballylongford Land Bank therefore represents enormous potential to create local employment for the village."
- Section 2.3.3 of the LAP also references the SIFP, noting that the SIFP has identified the strategic Ballylongford Land Bank 'as being critical to the future development potential of marine and energy related industry in the Estuary', and that Kerry County Council recognises 'the on-going potential of the Tarbert / Ballylongford landbank to be sustainably developed for industry in compliance with the EIA and Habitats Directives.'
- Finally, the LAP also contains infrastructure objective LS-T-01 as follows:
  - "Sustainably harness the economic potential from the provision of a secure natural gas energy supply to the region."

The Listowel LAP also endorses the strategic significance of the proposed development and the positive impact it could have on reversing rural decline in the Ballylongford area.

In summary, the proposed development is aligned with, and will assist in the delivery of key planning policy and land use objectives at national, regional and local level.

#### 3.1.9 Planning History

Table 3-1 Planning History of the Proposed development Site

Planning Reference	Location	Received Date	Decision Date	Decision	Description
ABP-319245-24	Townlands of Kilcolgan Lower and Ralappane, Ballylongford, Co. Kerry	08.03.2024	TBC	TBC	Pre-Application Consultation. Proposed development of a strategic gas emergency reserve facility, and associated development works
VC08.318119	Townlands of Ralappane, Kilcolgan Lower, Carhoonakineely, Carhoonakilla, Cockhill, Coolnanoonagh, Carhoona, Farranawana and Kilpaddoge, Tarbert, Co. Kerry	28.09.2023	TBC	TBC	Pre-Application Consultation Request. Proposed 220 kV Grid Connection and 2 no. 220 kV GIS substations.
ABP-311233-21	Ralappane and Kilcolgan Lower, Co. Kerry	27.8.2021	13.9.2023	Refused, currently subject to JR proceedings	10 year permission for proposed Shannon Technology and Energy Park consisting of power plant, battery energy storage system, floating

					storage and regasification unit, jetty, onshore receiving facilities, above ground installation and all ancillary structures/works.
PL08B. PA0002	Ralappane and Kilcolgan Lower, Co. Kerry	24.9.2007	31.3.2008	Granted	Proposed LNG regasification terminal.
PL08.PM0002	Ralappane and Kilcolgan Lower, Co. Kerry	01.11.2012	4.3.2013	Granted	Amendment to the phasing of the construction of the permitted LNG Terminal (condition no. 3) and other minor modifications
PL08.PM0014	Ralappane and Kilcolgan Lower, Co. Kerry	22.9.2017	13.7.2018	Granted	Amendment to the length of the permission for the permitted LNG Terminal (condition no. 2) from 10 years to 15 years.  This decision was quashed by the High Court in November, 2020
PL08.GA0003 <sup>3</sup>	townlands of Ralappane, Carhoonakineely, Carhoonakilla, Cockhill,etc.	14.8.2008	17.2.2009	Granted	Permission approved for a gas pipeline to connect Shannon LNG Terminal to the existing natural gas network at Leahy's Co. Limerick.
PL08. DA0003	townlands of Ralappane, Carhoonakineely, Carhoonakilla, Cockhill,etc.	1.8.2008	17.2.2009	Make acquisition order without amendments	Application for an acquisition order for the Shannon LNG Terminal at Tarbert, Co. Kerry to the Bord Gáis Eireann Network at Foynes, County Limerick
PL08. PA0028	Ralappane and Kilcolgan Lower, Co. Kerry	21.12.2012	09.7.2013	Granted	10 year permission for a combined Heat and Power (CHP) Plant

<sup>&</sup>lt;sup>3</sup> The 26km gas pipeline that will connect the proposed development to the existing natural gas network is already permitted. By decision dated 17 February 2009, An Bord Pleanála granted approval for this gas pipeline under section 182D of the Planning and Development Act, 2000 (as amended) (Board ref. PL08.GA0003). It follows that the permitted pipeline is an "approved project", to which Annex IV(5)(e) of the EIA Directive applies. This means the EIA of the proposed development must include effects resulting from the cumulation of effects with the permitted pipeline. Similarly, the permitted pipeline is a project for the purposes of the "in combination" assessment under the Habitats Directive. A revised assessment of the permitted pipeline will be included within the required future application for consent under section 39A of the Gas Act 1976 (as amended). We are advised that no such revised assessment is necessary to complete necessary cumulative and in combination assessments. The necessary cumulative and in combination assessments have been completed, on the basis that the permitted pipeline is built in accordance with its existing approval.

	_1010 Road upgrade	N/A	N/A		Kerry County Council are undertaking a widening scheme of the L1010 road which is to be completed prior to the start of the main construction elements but may overlap with the enabling works.
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The most recent substantive application pertaining to the proposed development site, ABP-311233-21, was refused by the Board on 13<sup>th</sup> September, 2023, and is currently subject to JR proceedings.

The Board refused permission for the following reason:

"It is Government policy, as set out in the Policy Statement on the Importation of Fracked Gas (May 2021), that it would not be appropriate to permit or proceed with the development of any Liquified Natural Gas terminals in Ireland pending completion of the review of the security of energy supply of Ireland's electricity and natural gas systems. Other policy statements, including Project Ireland 2040 National Marine Planning Framework, National Energy Security Framework (2022) and the National Energy and Climate Action Plan 2021-2030 confirm that completion of the review is a key priority in considering risks to energy supply, and the need for energy storage, fuel diversification and additional capacity to import energy.

The Review of The Security of Energy Supply of Ireland's Electricity and Natural Gas Systems (Department of the Environment, Climate and Communications Sept 2022) has been subject to public consultation and the initial technical analysis does not support the development of a commercially operated Liquified Natural Gas Floating Storage and Regasification Unit. The review has not yet been completed.

Having regard to the above and to the nature and form of the proposed development which constitutes an overall integrated facility incorporating an Liquified Natural Gas terminal and with a clear focus on the use of Liquified Natural Gas as the primary fuel source for related elements such as the proposed power station, it is considered that the development at this time would be contrary to current government policy, and in the absence of such policy support, such development would be contrary to the proper planning and sustainable development of the area.

In deciding not to accept the Inspector's recommendation to issue a split decision, to refuse permission for the proposed Floating Storage and Regasification Unit, with a Liquified Natural Gas storage capacity of 170,000 cubic metres (up to 180,000 cubic metres), 292.6 metres long and 43.4 metres wide, with a scantling draft water line of 12.9 metres, the proposed jetty, the deck of which will be set at +9 metres OD (Malin Head), and ancillary structures and proposed onshore receiving facilities and to grant permission for the 600MW power plant and associated structures, 120MW battery energy storage system, and ancillary development, proposed Above Ground Installation and ancillary structures and all ancillary works, the Board first off agreed in full with the assessment and recommendation of the Inspector that Government policy does not support the provision of an Liquified Natural Gas terminal at this time.

The Board noted the assessment of the Inspector that certain elements of the overall proposed development would warrant a grant of permission by reason of amongst others, relevant European, national, regional and local policy, the location, nature, scale and layout of these elements of the proposed development and the range of mitigation measures set out in the Environmental Impact Assessment Report, Natura Impact and Navigation Risk Assessment. However, the Board determined that these elements of the overall proposed development, recommended for a grant of permission, constitute integral components of the overall proposal as set out in the application documentation, and would be primarily served and enabled for use by the specific functioning of the core Liquified Natural Gas terminal elements.

Furthermore, the Board considered that the significance of the change to the original proposed development, (by reason of the Inspector's recommendation to refuse permission for certain elements, with which the Board agreed in full), would render the residual development a materially different proposal at this location adjoining the Shannon estuary and which would warrant at the least a full review in terms of compatibility with overarching policy for the area, noting for example objective MRI 1.2.13 of the 'Strategic Integrated Framework Plan for the Shannon Estuary' (SIFP) which seeks 'to promote the sustainable development of these lands for marine related industry, utilising the presence of deep water and the waterside location to harness the potential of this Strategic location.' The SIFP

is directly referenced and supported in the Regional Spatial Economic Strategy for the Southern Region and is also incorporated into the current Kerry County Development Plan. In the absence of the core Liquified Natural Gas elements of the original permitted development and which are directly linked to the estuary location of the site by their specific form and water based access needs, the Board is not satisfied on the basis of the information submitted with the application, that the residual development as recommended for permission by the inspector, would be consistent with this objective, or that an assessment of such consistency is available with the documentation on file. In addition, the Board considered that this concern as to the appropriateness or otherwise of granting permission for the residual elements of the original proposed development, would also extend to broader matters of necessary environmental assessment such as the consideration of alternatives. Having regard to these factors, the Board determined that a split decision (part refusal of permission and part grant of permission) would not on the basis of the information on file, be in accordance with the proper planning and sustainable development of the area."

As noted in section 3.1.3 above, the Inspector stated in his report that:

The development accords with the relevant policy at a European, National, regional and local level. It will provide conventional power generation capacity in line with the provisions of the Climate Action Plan 2023, which would facilitate the transition to a more renewables based national electricity system. The proposed power generation development has been designed to provide an efficient and flexible plant in line with current design standards, which combined with the proposed battery energy storage facility, will facilitate its role as a back-up to a renewables-based electricity grid. While it is acknowledged that the operational of the development would generate greenhouse gas emissions, the need for such generation capacity is recognised as a national priority in the Government Policy Statement on Security of Electricity Supply, notwithstanding an overall commitment in the Climate Action and Low Carbon Development (Amendment) Act 2021 to becoming a carbon-neutral economy by 2050. When taken in context, and noting the need and policy support for the proposed development including consistency with the relevant provisions of the Climate Action Plan 2023, significant negative impacts on the global climate receptor are not likely.

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

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

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

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

The Inspector's rationale for recommending a grant of permission for the power plant, BESS, AGI and associated infrastructure is equally pertinent for, and applicable to, the proposed development:

- As set out in Chapter 4 of the EIAR, the proposed development also accords with the relevant policy at a European, national, regional and local level.
- It will also provide conventional power generation capacity in line with the provisions of the Climate Action Plan 2024, A key component of meeting this reduction target is the decarbonisation of electricity generation in Ireland. To drive this change, Ireland has set a target to generate 80% of grid electricity from renewable sources by 2030, largely from wind. To allow this uptake of renewable energy to happen it is necessary to have in place back up sources of energy generation that can be efficiently dispatched when the wind is not blowing. Flexible gas-powered generation is a critical part of that strategy, given the highly variable nature of wind energy generation.

- The proposed power plant has also been designed to provide an efficient and flexible plant in line with current design standards, which combined with the proposed battery energy storage facility, will facilitate its role as a back-up to a renewables-based electricity grid.
- While it is also acknowledged that the operational of the development would generate greenhouse gas emissions, the need for such generation capacity is recognised as a national priority in the Government Policy Statement on Security of Electricity Supply, notwithstanding an overall commitment in the Climate Action and Low Carbon Development (Amendment) Act 2021 to becoming a carbon-neutral economy by 2050. When taken in context, and noting the need and policy support for the proposed development including consistency with the relevant provisions of the Climate Action Plan 2023, significant negative impacts on the global climate receptor are also not likely.
- While there will also be landscape and visual impacts associated with the proposed development, in the
  context of the surrounding pattern of development and the long term objectives for the development of
  these lands, such impacts are not considered to be significant adverse.
- Significant ecological effects are also not anticipated arising from the proposed power plant. Direct impacts on habitats are also limited and are not considered to adversely affect the conservation objectives of European Sites. In this context, we note the Inspector's Report on case reference ABP-311233-21, stated that "The loss of Annex I habitats 1130 Estuaries and 1170 Reefs, arising from the development will not give rise to negative impacts to the functioning of the habitats, and will not result in adverse effects on the integrity of the cSAC or the SPA. Low numbers of estuarine birds continue to be recorded in the vicinity of the site, and there is also noted to be limited intertidal foraging habitat of value along the shore, while the site itself also provides limited foraging potential. Negative impacts on terrestrial flora and fauna, and habitats within the site will also localised, negative but not significant.

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

An analysis of the planning history of the proposed development site and of the area in the vicinity, as set out in Volume 4 Appendix A1.2 of the EIAR (Planning History and Cumulative list), clearly illustrates that, having regard to the pattern of development in the vicinity, the development of energy infrastructure such as that proposed in this instance, is generally considered to be consistent with, and envisaged by, national, regional and local planning policy.

The proposed development site itself was also previously subject to a positive planning decision for a CHP.

There are established power stations in the vicinity of the proposed development site. More recently, the planning history of the area in the vicinity of the proposed development site reveals multiple permissions for energy-related infrastructure to support the emerging renewable energy developments in the area, including an upgrade to the existing 220 kV substation at Kilpaddoge, a battery energy storage facility at Kilpaddoge, and the installation of 400kV electricity transmission cables between Kilpaddoge substation and the Moneypoint substation.

# 4. Environmental Appraisal

#### 4.1 Need for EIA

The proposed development falls under the Seventh Schedule of the Planning and Development Act 2000, as amended, as:

'A thermal power station or other combustion installation with a total energy output of 300 megawatts or more'.

In accordance with sections 37A and 37B of the Act, the proposed development has been determined by An Bord Pleanála to fulfil the criteria requiring the application for permission to be made directly to the Board instead of the local planning authority. Section 37E of the Act provides that such an application shall be accompanied by an EIAR.

An EIAR is also mandatory for the proposed development in line with paragraph 2(a) of Annex I and paragraph 3(a) of Annex II of the EIA Directive, as transposed, respectively, by paragraph 2(a) of Part 1 of Schedule 7 to the 2001 Regulations and paragraph 3(a) of Part 2 of Schedule 7 to the 2001 Regulations, as amended.

An EIAR has been prepared by AECOM and is included with the planning application.

The key conclusions of the EIAR, which has also considered the cumulative effects of the Strategic Gas Reserve Facility currently subject to pre-application consultation with the Board, Data Centre Campus, and the 220 kV and the medium voltage (10 / 20 kV) cables, are set out below.

#### 4.1.1 Land and Soils

The construction phase, without mitigation, may give rise effects which range from Imperceptible to Slight.

The operational phase, without mitigation, may also give rise to effects which range from Imperceptible to Slight.

Mitigation measures associated with both the construction and operational phases of the proposed development have been embedded within the design.

A Construction Environmental Management Plan (CEMP) has been produced as part of the planning submission (Volume 4 of the EIAR). A detailed CEMP will be produced by the successful Contractor prior to the main construction works and will take account of the measures included in the CEMP and any commitments included within the statutory approvals.

The residual impact of the Proposed development on the surrounding land and geological environment is considered to be Imperceptible at the construction phase and Imperceptible to Slight at the operational phase.

Cumulative impacts arising from the related to proposed future Strategic Gas Reserve, SLNG Pipeline, Data Centre and medium voltage (10 / 20 kV) / 220 kV power supply are considered to be Imperceptible to Slight.

#### 4.1.2 Water

Mitigation measures associated with both the construction and operational phases of the proposed development have been embedded within the design.

The residual effect of the proposed development on the surrounding groundwater and surface water environments is considered to be imperceptible during both the construction and operational phases.

#### 4.1.3 Biodiversity

#### 4.1.3.1 Marine Ecology

Construction impacts which were considered included the release of sediment and pollutants and impacts on underwater noise from onshore blasting during construction. The impact on underwater noise from onshore blasting is temporary and restricted to a narrow bang along the shoreline.

Operational impacts which were considered included the discharge of wastewater and heated effluent during the operation of the proposed development and finally the loss of habitat due to the installation of an outfall pipe across the shoreline. Discharges from the proposed development would not result in significant environmental impacts on the highly dynamic environment of the Shannon Estuary. The area of habitat lost resulting from the installation of the outfall pipe is small and negligible. The extent of habitat loss will not impact on the functioning and structure of habitats or the integrity of the Lower River Shannon SAC.

The risk of pollutants being discharged during the construction phase of the project is low and the implementation of the construction best practice measures in the CEMP will further reduce this risk. Following implementation of mitigation measures there will be no adverse impacts on designated sites overlapping with the elements of the proposed development.

The potential impact of noise pollution is greatly reduced in the current proposal with the main source of noise pollution coming from onshore blasting during the construction phase of the proposed development.

The loss of habitat due to the installation of the trenched water outfall is negligible.

#### 4.1.3.2 Terrestrial Ecology

The majority of ecological impacts will arise during the construction phase as a result of disturbance to badger, bats, otter, birds, fish and common frog, damage to and loss of small areas of habitats (including 1 outlier Badger sett), hedgerows / treelines, scrub, woodland and wet grassland and potential water pollution incidents. In the absence of mitigation these impacts range from not significant to moderate.

In the absence of mitigation measures, significant operation phase impacts could include light spill onto retained vegetation outside the site boundary (it is assumed that all habitats within the site would be removed) used for feeding or breeding by protected species. Disturbance to protected species could occur from noise associated with human use of the site.

Following the implementation of mitigation measures, impacts will be not significant above a local geographic scale of significance.

#### 4.1.4 Air Quality

During the construction phase, the risk of dust emissions occurring at the nearest residential dwellings, including those located within 25 m of the site access, are considered to be not significant.

The operational phase assessment considered a normal operational scenario, based on the proposed development operating on natural gas and operating continuously on natural gas constantly throughout the year, and startup and backup plant is operational for 52 hours per year for testing and maintenance. An alternative scenario has also been considered, whereby the proposed development is operating on liquid-fuel in the event of a gas supply shortage.

With mitigation, the effect of the proposed development is considered not significant overall.

#### 4.1.5 Airborne Noise and Ground Vibration

During the construction and operational phase, without mitigation, effects are predicted to range from not significant to significant.

Residual impacts are those arising from changes in traffic flows on existing roads during the construction phase. However, the spatial extent of this impact is small, being restricted to one road link; the L1010 between the site entrance and Tarbert. However, absolute levels are not high therefore the impact may be less than indicated No impacts are predicted during the operational phase.

#### 4.1.6 Landscape & Visual

Landscape and visual effects and their significance at construction stage will be Temporary to Short-Term Adverse.

The introduction of large industrial buildings will lead to a long-term change in character at the site and an intensification of the industrial character along the shores of the Shannon Estuary. In the context of the wider study area, the proposed development will be seen in conjunction with other existing large-scale industrial developments along the Shannon Estuary, which define already the overall character of estuary and its shorelines within the study area. The proposed development will therefore not be seen as uncharacteristic and can integrate into the wider landscape and seascape character.

The main operational visual effects will relate to the introduction of a new large industrial facility onshore. The proposed development will introduce another prominent industrial facility in available views within the Co. Kerry section of the study area. It will often be seen in conjunction with the existing Tarbert Power Station, and Moneypoint Power Station with associated wind farm. The majority of open views of the proposed development will be experienced from the Co. Clare side of the Shannon Estuary, where middle to long distance open views of the

proposal will be possible. Visibility is generally considered middle to long distance in nature (beyond 1 km) due to the width of the estuary. The proposed development will be a new component on often panoramic views across the estuary into Co. Kerry. It will be seen in conjunction with existing wind turbines and Moneypoint Power Station and its chimney stacks in Co. Clare. The proposed development will therefore not be totally out of character. It will nevertheless industrialise additional areas further west along the shoreline, which are currently rural and natural in appearance.

The proposed development has been designed, as far as practicable, to avoid negative effects on the landscape and views. Modifications made to the design of the proposed development to avoid and reduce negative effects include mainly limiting the extent of land-take, siting of components, and, where possible, minimise impacts on established vegetation and features that contribute to landscape character and visual amenity.

The cumulative effects from future developments will not significantly change the overall landscape and seascape character. Views across the Shannon Estuary from County Clare will, depending on clear weather conditions' result in a clear increase in industrial facilities along the shoreline in generally wide panoramic views.

#### 4.1.7 Traffic and Transport

Without mitigation, the proposed development will result in a slight impact in terms of the operating capacity of the junctions, however all of the junctions continue to operate well within capacity with the addition of the construction traffic.

The residual impact of the proposed development on traffic and transportation is considered to be slight at the construction phase and imperceptible during the operation phase. Cumulative impacts arising from related projects such as Tarbert Power Station and the L1010 Road Works are considered to be minimal and insignificant.

#### 4.1.8 Cultural Heritage

There is one recorded archaeological site partially located within the boundaries of the proposed development. This is a ringfort (KE003-004) which is located on the east boundary. There were 6no. cultural Heritage sites previously identified in 2008– CHS4 Farm Complex, CHS5 Possible Archaeological Feature, CHS6 well, CHS7 gun emplacement, CHS14 Mass Rock and CHS15 a two-bay ruined structure. The archaeological testing in 2008 also revealed 31 Areas of Archaeological Potential within the footprint of the current proposed development.

An intertidal and subtidal survey was undertaken in 2024 in response to a request by the National Monuments Service. Nothing of significance was found during the survey.

The Cultural Heritage assets and 31 Areas of Archaeological Potential are located within the footprint of the proposed development and will be impacted by groundworks associated with the construction of the proposed development.

There will be residual impacts on 26 assets of moderate effect and residual impacts on two assets of no effect.

Mitigation has been proposed to reduce this impact which will ensure any archaeological and architectural assets are identified and recorded to best practice thereby enriching the known heritage of County Kerry.

### 4.1.9 Population and Human Health

Construction of the proposed development will lead to a slight positive impact on the local employment workforce due to the number of construction workers required. It will also lead to an imperceptible negative impact on severance between the local population and the services which they frequently use due to construction traffic travelling to and from the site.

The proposed development will also lead to the following impacts on human health during the construction phase:

- A negative human health impact due to the presence of construction traffic leading to nuisance and noise level increases at residential properties on the L1010 road and Church Street in Tarbert.
- A positive human health impact due to the workforce required to construct the Proposed development leading to increased accessibility to employment opportunities and training for the employment workforce in the local and wider community.

The operation of the proposed development will lead to a slight positive impact on the local employment workforce due to the number of workers required.

The proposed development will also lead to the following impacts on human health during the operation phase:

- A negative human health impact due to the impact of the proposed development on GHG emissions and climate change.
- A positive human health impact due to workforce required to operate the proposed development leading
  to increased accessibility to employment opportunities and training for the employment workforce in the
  local and wider community.

No significant cumulative effects have been identified.

Overall, during the construction and operational phases, the overall impact on Population and Human Health will be low.

#### 4.1.10 Major Accidents and Disasters

Operators of power generation and natural gas industries incorporate the highest standards of safety and environmental protection measures throughout the design, construction and operation of their facilities.

Safety and environmental protection measures are incorporated at all stages in the lifecycle of the proposed development. From the extensive number of engineering codes and standards which are used in the design of facilities, from the construction of infrastructure to the specification of pipework and instruments to monitor and control the process. Detailed safety and environmental risk assessments will be carried out during design and on a regular basis during the operating phase of the proposed development to identify and analyse hazards.

A number of fire prevention and protection measures are included in the design of the proposed development.

Overall, the construction, operation and decommissioning phases of the proposed development is considered not significant.

#### 4.1.11 Climate

The GHG assessment has considered the proposed development to have a major adverse residual effect and is therefore considered significant.

However, the proposed development must be considered in relation to the Irish Government's low-carbon energy strategy. The proposed development will assist in displacing higher carbon intensity, fossil-fuelled power plants. The proposed development will result in significant reductions in carbon emissions for the Irish energy sector and aid in the transition to a renewable-based energy network.

The Climate Change Resilience Assessment has been qualitative and provides commentary on how the proposed development will be resilient to climate change within the context of current and predicted future climate conditions. No significant climate change impacts were identified for the proposed development.

#### 4.1.12 Waste

All management of waste will be in accordance with the relevant regulations. Waste will be transported by licensed waste carriers to waste management sites which hold the necessary regulatory authorisation and / or permits for those wastes consigned to them.

No significant effects are expected during construction. The construction of the Proposed development will be subject to measures and procedures defined within a detailed Construction Environmental Management Plan (CEMP), refer to Volume 4 of the EIAR. A RWMP has been prepared for the proposed development, also in Volume 4 of the EIAR

All operational wastes are expected to be not significant in the context of national waste arisings.

The implementation of the mitigation and monitoring measures will ensure that high rates of reuse, recovery and recycling are achieved at the site of the proposed development.

Therefore, the residual effect significance on national waste plans and policies, and national capacity as a result of the waste generated from the proposed development is considered to remain not significant.

#### 4.1.13 Material Assets

With the implementation of best practice mitigation measures the proposed development could still require a temporary suspension of services to facilitate the connection works to the utilities network during the construction phase. However, the residual effect on the existing utilities network will likely be imperceptible during the construction phase.

During operations, the proposed development will operate off natural gas as the primary fuel and will use approximately 25.5 GWh/d2 of natural gas when operating at full capacity.

The residual effect on the existing electricity transmission network will be positive and very significant, as the Proposed Development will export up to 600 MW of power to the electricity transmission system.

# 4.2 Appropriate Assessment

The proposed project is located within the Lower River Shannon SAC (Site code: 002165). The development area also overlaps the River Shannon and River Fergus Estuaries SPA (Site code: 004077).

The Screening Report for Appropriate Assessment has determined, in light of best available scientific data, that there is potential for significant effects on the conservation features of the Lower Shannon River SAC and, the River Shannon and River Fergus Estuaries SPA from the proposed project. The likelihood of significant effects on all other European sites has been ruled out. The assessment also determined that there is the potential likelihood for significant effects from the proposed project in combination with other plans or projects.

A Natura Impact Statement (NIS) has been produced in support of the Appropriate Assessment of the proposed project to be undertaken by the competent authority. The NIS considers in greater detail the aspects of the proposed project with potential for significant effects and further examines the impacts of the proposed project on the integrity of the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA with respect to the Conservation Objectives established for the sites. Where potential significant adverse effects are identified, mitigation measures are identified to prevent adverse effects on the integrity of the sites.

Where possible, mitigation measures have been developed and proposed, with the purpose of avoiding impacts on the conservation features (i.e. QIs and SCIs) and the Conservation Objective of SACs and SPAs. The likely success of the measures identified was also considered and no difficulties in their effective implementation were identified.

The provisions of Article 6 of the 'Habitats' Directive 92/43/EC (2000) defines 'integrity' as the 'coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and / or population of species for which the site is or will be classified'. The European Commission publication Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018), states that the integrity of the site can be usefully defined as the coherent sum of the site's ecological structure, function and ecological processes, across its whole area, which enables it to sustain the habitats, complex of habitats and/or populations of species for which the site is designated.

Following a comprehensive evaluation of the potential direct, indirect and in-combination impacts on the conservation features in light of their Conservation Objectives, it has been concluded that with the construction and operation of the STEP Power Plant development will have no adverse effect on the Lower River Shannon SAC or the River Shannon and River Fergus Estuaries SPA and the authors have no reasonable scientific doubt as to this conclusion.

## 5. Conclusions

In conclusion, and having regard to:

- National Strategic Outcome (NSO) 8 Transition to a Low Carbon and Climate Resilient Society of the National Planning Framework (NPF), 2018, which states that our gas storage capacity is limited, which poses a security of supply risk and constrains smoothing of seasonal fluctuation in gas prices.
- The provisions of the National Development Plan (NDP) 2021 in respect of the need to provide for natural gas and for such provision to be delivered by the commercial/private sector.
- The provisions of the National Energy and Climate Change Plan 2021 which forecasts that natural gas demand will increase from current demand levels of 4.69 to 6.38 million tonnes of oil equivalent by 2040.
- The Climate Action Plan 2024, which sets a target of 80% of electricity to be generated from renewable sources by 2030. Flexible gas-powered generation is a critical part of that strategy, given the highly variable nature of wind energy generation.
- EirGrid's All-Island Generation Capacity Statement 2020 which has forecast a shortfall in generation capacity of up to 570MW by 2026 and advised that new additional gas fired conventional power plants are urgently required.
- The provisions of the Shannon Integrated Framework Plan (SIFP) 2013 in terms of the suitability of the site as the Tarbert/Ballylongford Strategic Development Location for the intended power generation use, and the importance of the proposed development to the economic wellbeing of the region.
- The Regional Spatial and Economic Strategy for the Southern Region which fully endorses the provisions
  of the SIFP with respect to the Tarbert/Ballylongford strategic landbank.
- The provisions of the Kerry County Development Plan 2022, specifically the Strategic Development Location (SDL) zoning objective, recognised for its potential as an Energy Hub and for industrial development at a regional and national level, as well as objectives KCSP 9-23, KCDP 9-25, KCDP 12-1, KCDP 12-3, and KCDP 12-36, which, collectively, seek to promote and facilitate the sustainable development of the Tarbert-Ballylongford landbank. The proposed development will contribute towards the development of energy supply infrastructure in the county, and a strategic energy hub along the southern shore of the Shannon estuary in north county Kerry.
- The provisions of the Listowel Municipal District Local Area Plan 2020, which is aligned with the provisions
  of the Kerry County Development Plan, and also includes infrastructure objective LS-T-01 which seeks to
  "Sustainably harness the economic potential from the provision of a secure natural gas energy supply to
  the region."
- The overriding need, in energy policy terms, for the proposed development in terms of energy security, addressing electricity capacity shortfalls and supporting intermittent renewable generation.
- The conclusions of the alternatives assessment which concludes that the proposed Power Plant is the
  most efficient, flexible and reliable option with the lowest CO<sub>2</sub> emissions profile of the alternatives
  considered.
- The nature of the receiving environment, about which the EIAR generally concludes that there are no significant effects. It is noted that the GHG assessment has considered the proposed development to have a major adverse residual effect and is therefore considered significant. However, the proposed development must be considered in relation to the Irish Government's low-carbon energy strategy. The proposed development will assist in displacing higher carbon intensity, fossil-fuelled power plants. The proposed development will result in significant reductions in carbon emissions for the Irish energy sector and aid in the transition to a renewable-based energy network. It is also noted that the proposed development includes a trenched water outfall in the Shannon Estuary, and while these works will result in the loss of habitat, the area lost is small and negligible, and the extent of habitat loss will not impact on the functioning and structure of habitats or the integrity of the Lower River Shannon SAC
- The flexibility of the proposed development, with an ability to transition to hydrogen when the required
  policies and supply chains are implemented.

• The conclusions of the NIS, which concludes that with the construction and operation of the proposed project will have no adverse effects on either the River Shannon and River Fergus Estuaries SPA or the Lower River Shannon SAC.

It is the conclusion of this report that the proposed development is consistent with national, regional and local planning policy, has a demonstrable need in assisting with the transition to a low carbon society, can generally be successfully absorbed into the receiving environment without significant effect, and is in the interests of the proper planning and sustainable development of the area.