An Bord Pleanála

Inspector's Report ABP-315838-23

Development	Application received under Section 4 of the Development (Emergency Electricity Generation) Act 2022 for a designated development at Tarbert Power Station.
Location	In the townland of Tarbert Island, Co. Kerry
Applicant(s)	SSE Generation Ireland Limited
Type of Application	Application to the Minister for approval under s.7 of the Development (Emergency Electricity Generation) Act 2022.
Submissions Received:	• New Fortress Energy (STEP) • Health and Safety Authority • Transport Infrastructure Ireland (TII) • Dept. of Housing, Local Government and Heritage - Development Applications Unit • Environmental Protection Agency (EPA)
Date of Site Inspection	28/02/2023
Inspector	Conor McGrath

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1.0 Background Information and Context to the Current Application

In September 2021, the Commission for Regulations of Utilities (CRU) published an Information Note entitled: Security of Electricity Supply Programme of Actions. The Information Note describes the projected shortfall in electricity generation capacity to meet future demand alongside a number of mitigation measures. Subsequently, the Government Policy Statement on Security of Electricity Supply (November 2021) approved, amongst other matters, that "the development of new conventional generation (including gas-fired and gasoil/distillate-fired generation) is a national priority and should be permitted and supported in order to ensure security of electricity supply and support the growth of renewable electricity generation".

Following a recommendation from Eirgrid, the CRU obtained the consent of the Minister for the Environment, Climate and Communications (the Minister) under Article 28(10) of the European Communities (Internal Market in Electricity) Regulations 2005 S.I. 60/2005, to direct Eirgrid to procure the delivery of additional temporary emergency generation capacity to provide system security. Eirgrid is seeking the delivery of circa 450MW of additional temporary emergency generation capacity for the period of winter 2023-24 to winter 2025- 26.

The Board should note the following aspects of the procurement and operation of the temporary emergency generation:

- The emergency generation is temporary in nature.
- The capacity will only be brought online when existing, market-based generation capacity has failed or is imminently likely to fail to meet the system requirements.
- The temporary emergency generation capacity will not be an active participant in the wholesale electricity market.
- In calculating future capacity requirements in EirGrid's Generation Capacity Statements (GCS) and the National Resource Adequacy Assessment, temporary emergency generation capacity will not be accounted for or calculated in the GCS or as being available to provide such service in the future.
- Similarly, temporary emergency generation capacity will not be included in calculating capacity requirements for auctions under the Capacity Remuneration Mechanism or as being available to provide such service in the future.

- When new enduring capacity has been provided, these temporary units will cease operation and will be decommissioned and removed from their sites.

This application for approval for Emergency Electricity Generation plant within the existing Tarbert Power Generation site at Tarbert Island, was lodged with the Minister for the Environment Climate and Communications (The Minister) on February 17th 2023. The designated development will involve works for the installation, subsequent operation and final decommissioning of three Open Cycle Gas Turbines (OCGT) with a total output capacity (net output) of 150 MW. An environmental assessment of the Designated Development will be carried out by the Board to ensure that the objectives of the EIA Directive are met.

2.0 Legislative Basis for the Application

This report relates to an application to the Minister from SSE Generation Ireland Limited under section 4 of the Development (Emergency Electricity Generation) Act 2022 for approval to carry out development at Tarbert Power Station, Co. Kerry under section 7 of the Act. The application was accompanied by an Environmental Report, an Appropriate Assessment Screening Report and a Natura Impact Statement.

In accordance with section 5(2) and section 6(1) of the Development (Emergency Electricity Generation) Act 2022, and Articles 8 and 9 of the Development (Emergency Electricity Generation) Regulations 2022, this report provides an assessment of the designated development for the purposes of ensuring that the objectives of the EIA Directive are met, and an appropriate assessment of the development in accordance with Part 5 of the European Communities (Birds and natural Habitats) Regulations 2011.

In accordance with section 7(1) of the Act of 2022, the Minister may, having taken into account the assessments carried out by the Board under sections 5(2) and 6(1) and any conditions recommended by the Board arising from those assessments, decide to approve the development, without or without conditions, or refuse to approve the development

3.0 Site Location and Description

The designated development is located on Tarbert Island, which is occupied by the Tarbert Power Generating Station, approx. 2km north of the town of Tarbert, adjacent to the operational pier of the Tarbert-Killimer ferry. The overall site is bounded by the Shannon Estuary to the north, east and west and by a tidal lagoon and causeway to the mainland to the south. The existing primary access to the overall site is from the N67 (ferry road) to the east, north the ferry terminus, while there is a secondary entrance from the N67 in the southeastern corner of the lands. There are a number of dwellings located to the east of the site off the N67.

The existing oil-fired electricity generation station, located centrally on the lands, was constructed originally in the 1960's and has an overall generating capacity of 626MW. A heavy fuel oil (HFO) tank farm lies on the western part of the island with a fuel import jetty projecting into the estuary to the northwest. There is a 220kV AIS substation and a 110kV GIS substation and other supporting infrastructure to the south of the main power station. Condensed cooling water from the power station is discharged to the lagoon to the south.

The development site boundary (red line) encloses a stated area of 13.55ha and includes construction laydown areas, the large 220kV substation and existing access routes in and around the Tarbert Power Station Site. The existing power station buildings and a small, capped landfill area, to the east of the tankfarm on the northern shore, are excluded from the site.

The main development site comprises a level area at the southwestern end of the overall generation campus. It includes large areas of made ground and artificial surfaces, recolonising areas, scrub and grass verges. The site is bounded to the north by the HFO tank farm. The 220kv substation is located to the east, with an internal road providing secondary access to the N67. Intervening lands between the site and the estuary to the west and northwest, include internal roads and fuel pipelines from the adjacent jetty. To the south, the site is bounded by the shore of the coastal lagoon / creek.

To the southwest of Tarbert Island is a National Oil Reserve Agency (NORA) strategic storage site. The wider estuary is characterised by energy generation and transmission infrastructure, including the Moneypoint Power Plant approximately 3km

to the north-west. Tarbert generating station is widely visible in the area, notably on the approach along the N69 from the east and from County Clare, as well as from the Killimer ferry.

The Shannon estuary and associated bays are designated as European Sites, including the Lower Shannon Estuary candidate Special Area of Conservation (cSAC), the Shannon and River Fergus Estuaries Special Protection Areas (SPA) and the proposed Natural Heritage Area at Tarbert Bay.

4.0 Designated Development

The development is designated under section 2(1) of the Development (Emergency Electricity Generation) Act 2022. The development will consist of three open cycle gas turbine units each with capacity of 50MWe (150MW in total) which will run on distillate fuel, and ancillary infrastructure and development, site works and services. The development will operate as an emergency plant, to meet emergency security of supply needs, with a maximum annual running time of 500 hours per annum, spending the majority of time on standby. The development will comprise the following main components:

- 3 no. 50 MW Gas Turbine generators and 30m high exhaust stacks, and fin fan coolers and control modules
- 6 no. containerised switchgear and control modules.
- 3 no. fuel oil storage tanks (1000m3).
- 6 no. fuel oil tanks (80m3) (containerised).
- 1 no. fuel oil drain tank for filter change over.
- 2 no. demineralisation treatment units and a water storage tank (1320m3).
- 1 no. raw and fire water storage tank (2500m3).
- 2 no. generator step-up transformers.
- Administration building.
- A 220kV substation, and
- Underground cable connection to existing onsite 220kV AIS substation.

Associated development includes internal roads, external lighting, security fencing and gates, and utilities, pipes, cables and connection to existing drainage systems.

Construction will require temporary facilities and works including construction and laydown areas, open storage areas, materials and plant storage, contractor compound, site office and welfare facilities, parking and signage. During the construction phase the western, southern and northern perimeter of the site will be bounded by an acoustic barrier, to mitigate noise emissions and provide visual screening to ecological receptors.

Distillate fuel will be transported to site by HGV tanker and stored in 3 no. above ground tanks on the northern section of the site and six smaller adjacent containerised tanks. The turbines will use forced air-cooling radiators to dissipate heat when operational and no wet cooling system is required. It is stated that the turbines will comply with current best available techniques for NOx limits. An acoustic wall will bound each generating unit to the southeast (8m high and 18m in length) and a further 45m acoustic wall will be provided on the southernmost part of the site (5m high).

Surface water will be directed into the existing surface water management system on the wider site and will pass through oil interceptors prior to discharge to the estuary. There will be segregated and bunded areas for fuel offloading and storage. It is proposed that the administrative / staff building will connect to the existing adjacent wastewater treatment plant.

Proposed construction hours reflect the emergency nature of the development, with two or three 8-hr shifts per day, seven days a week. The Environmental Report envisages that the development will be operational for up to five years, after which it will be decommissioned, dismantled, and removed from site. Decommissioning would be expected to commence during 2027 - 2028.

The electricity generation plant shall be dispatched only in the circumstances and the manner set out in the risk preparedness plan and in accordance with Article 16(2) of the Risk Preparedness Regulations. The EirGrid, Electricity and Turf (Amendment) Act 2022 indicates that these projects must cease operation in 2027, with an option of a further year if required.

The designated development would be subject to a licence from the EPA under Class 2.1 of the First Schedule of the EPA Act 1992, as amended: Combustion of fuels in installations with a total rated thermal input of 50 MW or more, as set out in Part IV of

that Act. Any licence granted will incorporate conditions to ensure that operational emissions comply with appropriate National and EU standards. Where the activities cannot be carried on or effectively regulated under a licence, then the Agency cannot grant a licence. S.2 of the EPA Act provides a definition of emissions in this regard.

5.0 Documentation Submitted with the Planning Application

The application was lodged in electronic form on February 17th 2023 and was accompanied by the following documentation.

- A Covering Letter which states that the application is made under S4 of the (Electricity Emergency Generation Act) 2022.
- A newspaper notice published in the Irish Independent dated 17/02/23.
- An Environmental Report prepared in accordance with the provisions Article 7(2)(d) of the Development (Emergency Electricity Generation) Regulations 2022. The Environmental Report also contains 3 figures to meet the requirements of Article 3(4) of SI 719 0f 2022.
    - Figure 1 – Site Location Map
    - Figure 2 – Site Layout Map
    - Figure 3 – Designated Development Detailed Site Layout Plan

  Appendices to the Environmental Report include:
    - Appendix A –Technical Team Details.
    - Appendix B – Framework Construction and Environmental Management Plan (CEMP).
    - Appendix C – Framework Construction Traffic Management Plan (CTMP).
    - Appendix D - A Statement of Compliance with the provisions of Article 3(4) of SI 719 of 2022.
- A Stage 1 Appropriate Assessment Screening Report.
- A Natura Impact Statement. Appendices to the NIS include:
    - Information on European sites within the ZoI of the Development.
    - A Framework Construction Environmental Management Plan.
    - Details of Projects Assessed for In-Combination Effects.

- An Air Quality Modelling Assessment.
- Predicted Construction Noise Levels of the Temporary Emergency Generator.

6.0 Planning History

Tarbert:

- PA ref. 18/392: A ten-year planning permission was granted to SSE Renewables for a battery storage facility on the subject site, to include 50 no. self-contained battery container units, a single-storey substation / control building, a cable route grid connection to the existing substation and associated infrastructure. This development was subject to Screening for EIA and AA.
- PA ref. 13/477: Permission granted for alterations to the existing 220kv substation. An extension of duration was granted under PA ref. 13/9477.
- ABP ref. PA08.PA0017: A ten-year permission was granted on 06/12/2010 for a 450MW Gas-Fired Combined Cycle Power Plant within the proposed laydown area on the western side of the existing generation station. Conditions included:

  5. No development to take place prior to the implementation of an agreed traffic management plan including provision for signalised junctions and parking management at Bridewell St.
  12. Prior to the commencement of any other works, the proposed flood defence measures shall be completed. An emergency plan shall make provision for maintenance of access along the Ferry Road during seasonal and extreme flood events.
  16. Measures to facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site.
  20,21. A community gain fund to be managed by a Community Liaison Committee.

- PA ref. 05/3882: Permission granted for plant and facilities to abate dust emissions to comply with the conditions of the station's EPA licence.
- ABP-313661-22: SID Pre-application consultation request in respect of the proposed upgrading of the Prospect -Tarbert 220 kV Underground Cable across

the estuary, and associated infrastructure. The Board determined that the development was not strategic infrastructure.

Current Relevant Applications:

- ABP-311233-21: Current SID application for a proposed LNG import terminal and 600MW power plant at of Kilcolgan Lower and Ralappane, Ballylongford, Co. Kerry approx. 4.5km west of the Designated Development. This application is subject to EIA and AA.
- ABP-315836-23: Concurrent application for temporary emergency electricity generation at the ESB site at Shannonbridge, Co. Offaly, designated under the Development (Emergency Electricity Generation) Act 2022.

Kilpaddoge (approx. 2km southwest of the designated development):

- ABP ref. ABP-307798-20: Permission granted for a 400kV transmission cable across the estuary between Moneypoint, Co. Clare and Kilpaddoge Substation, Co. Kerry, including foreshore work and extension to Kilpaddoge Substation.
- PA ref. 13/1318: Permission granted for an electricity peaking plant, subsequently amended by PA ref. 20/850.
- PA ref. 18/878: 10-year permission granted for a Battery Energy Storage Project.
- PA ref. 19/115: Permission granted for a grid stabilisation facility adjacent to PA ref. 13/1318.
  PA ref. 21/549: Permission granted for a high inertia synchronous compensator, battery storage compound and associated work on the site of 19/115.

7.0 Policy and Context

7.1. National Development Plan, 2021-2030

This Plan underpins the National Planning Framework. It contains several priorities related to transitioning to a low-carbon and climate resilient society (NSO8).

The target of delivering up to 80 per cent of Ireland's electricity from renewable sources by 2030 will require a coordinated programme of investment including conventional electricity generation capacity to support the operation of the electricity

system and provide security of supply for when renewable generation is not sufficient to meet demand. This conventional generation will spend much of its time in reserve for when needed, i.e. when required to balance the system in times of high demand and low wind/solar generation.

7.2. Climate Action and Low Carbon Development (Amendment) Act 2021

The Act commits Ireland to the objective of becoming a carbon-neutral economy by 2050, reducing emissions by 51% by the end of the decade. Section 17 amends the principle act such that Section 15(1) requires that

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

(a) the most recent approved climate action plan,
(b) the most recent approved national long term climate action strategy,
(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,
(d) the furtherance of the national climate objective, and
(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.

"Relevant body" means a prescribed body or a public body.

7.3. Climate Action Plan 2023

Climate Action Plan 2023 is the first to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021. Ireland is committed to achieving a 51% reduction in GHG emissions by 2030 and reaching net-zero emissions no later than 2050. CAP 2023 sets out the roadmap to deliver on Ireland's climate ambition, aligned with the economy-wide carbon budgets and sectoral ceilings agreed by Government in July 2022.

Chapter 12 relates to electricity. Section 12.1.3 describes the Scale of the Challenge and the level of change required to meet the electricity sector's carbon budget programme and sectoral emissions ceilings. Rapid delivery of flexible gas generation is needed at scale and in a timeframe to replace emissions from coal and oil generation before the second carbon budget period. Measures in order to,

- deliver and accelerate a flexible system to support renewables, and

- managing electricity demand growth,

include the delivery “in the order of 2 GW of new flexible gas-fired power generation capacity”. This will involve the CRU and EirGrid ensuring an adequate level of conventional dispatchable generation capacity and delivery of at least 2 GW of new flexible gas-fired generation.

7.4. Policy Statement on Security of Electricity Supply (November 2021)

Section 2 identifies key challenges, including maintaining security of electricity supply throughout the transition to up to 80% renewable energy by 2030.

Wind and solar renewable energy generated by 2030 will be variable in nature and require other technologies to support their operation and provide electricity supplies when they are not generating. This will require a combination of conventional generation (typically gas powered), interconnection, demand flexibility and other technologies. As more wind, solar, storage and interconnection is added to the system, conventional generation is expected to operate less, but sufficient conventional generation capacity will still be required.

Much of the older, higher emission conventional generation is expected to close in coming years and will need to be replaced by generation that provides the same support and backup capability but that is also flexible, supporting high levels of wind and solar generation. Section 3 recognises the need for significant investment in additional flexible conventional electricity generation.

The Government has approved that (inter alia) the development of new conventional generation (including gas and gasoil / distillate-fired generation) is a national priority and should be permitted and supported to ensure security of supply and support the growth of renewable electricity generation.

7.5. National Energy Security Framework (April 2022)

The Framework addresses Ireland’s energy security needs in the context of the war in Ukraine. It coordinates work connected to energy security across the electricity, gas and oil sectors. The Framework takes account of the need to decarbonise society and the economy, and emissions targets set out in the Climate Action Plan.

Section 6.4 Electricity Supply, notes that any disruption to natural gas or oil supplies has the potential to disrupt the generation and supply of electricity. A specific focus is placed on the resilience of the electricity system to disruptions in natural gas supply.

Response 14: Prepare the electricity system and plan for potential disruptions to supplies of natural gas and manage potential impacts on final electricity consumers

The level of dispatchable electricity generation capacity needs to increase significantly over the coming years in order to reliably meet expected demand.

Response 15: Implement as a priority the programme of work set out by the Commission for Regulation of Utilities (CRU) to ensure security of electricity supply.

This programme includes the procurement of temporary emergency generation capacity to remain available until the necessary enduring capacity has been secured. This capacity is a non-market based measure and will only be called upon in the event of a shortfall in market-based capacity and where system alerts are likely.

7.6. The Planning System and Flood Risk Management – Guidelines for Planning Authorities

These section 28 Guidelines require that development in areas at risk of flooding be avoided unless there are grounds to justify the development and where it is demonstrated that the flood risk can be managed. Essential infrastructure, such as electricity generating power stations and sub-stations, and potential significant sources of pollution (SEVESO sites, IPPC sites, etc.) in the event of flooding, are classified as highly vulnerable development.

Flood zones are defined for the purposes of the Guidelines in section 2.23. In flood zone A, highly vulnerable development which includes electricity generating stations, will be required to meet the criteria of the Justification Test. Due to uncertainty in relation to the potential effects of climate change a precautionary approach should be adopted. This might include the design of structures to protect against flooding, capable of adaptation to the effects of climate change when there is more certainty about the effects.

7.7. Other Energy Sector Reports

7.7.1. **All-Island Generation Capacity Statement 2022-2031 (Eirgrid, SONI)**

The 2022 statement predicts a challenging outlook with capacity deficits identified during the 10 years to 2031. In the short term, deficits will increase due to the deteriorating availability of power plants. The deficits are expected to reduce as new capacity comes forward. Further new electricity generation will be required to secure the transition to high levels of renewable electricity.

The CRU has directed EirGrid to procure Temporary Emergency Generation to help mitigate the risks presented by the security of supply challenges. This generation can only be used in emergency situations and is not intended to be available to meet growing and enduring demand due to social or economic growth.

7.7.2. **CRU Information Paper, Security of Electricity Supply – Programme of Actions (Sept 2021)**

Key elements in the programme of actions of the CRU, in cooperation with EirGrid, DECC, the energy industry and other stakeholders, include the procurement of additional temporary emergency generation capacity. Temporary measures will be unwound as soon as possible, on delivery of other measures.

7.8. Regional and Local Policy

7.8.1. **Strategic Integrated Framework Plan for the Shannon Estuary (SIFP)**

The Framework Plan (SIFP) was commissioned in 2011 by Clare, Kerry and Limerick City and County Councils, Shannon Development and Shannon Foynes Port Company, as a marine and land use plan. The SIFP has been incorporated into the County Development Plan of these counties.

Nine Strategic Development Locations (SDL's) are identified, including Site G, Tarbert Power Plant, which is identified and prioritised for marine related industry. Development objectives include:

MRI 1.2.11 Tarbert Strategic Energy SDL: To safeguard the role and function of the Power Plant Hub at Tarbert, including the NORA Strategic Oil Reserves Plant…

MRI 1.2.12 Tarbert Marine Related Industry: To facilitate and promote compatible sustainable marine related industry …. All proposals for development shall be

required to demonstrate that they are compatible with or complementary with the level of flood risk, and with the neighbouring industrial development.

Objective ERG 1.3: To facilitate the further development of energy infrastructure at identified strategic energy sites and encourage appropriate diversification projects.

7.8.2. **Regional Policy - Regional Spatial Economic Strategy for the Southern Region**

RPO 79: to support and promote the delivery of the Strategic Development Locations set out in the Strategic Integrated Framework Plan (SIFP).

RPO 219 – New Energy Infrastructure - to support the sustainable reinforcement and provision of new energy infrastructure to ensure the energy needs of future population and economic expansion within designated growth areas and across the Region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs

7.8.3. **Kerry County Development Plan 2022-2028**

Chapter 9 *Sustainable Economic Development and Climate Action*.

Policy KCDP 9-23 supports and promotes the delivery of the Strategic Development Locations of the SIFP. The designated development site is identified as part of the Tarbert Ballylongford landbank.

Policy KCDP 9-26 is to safeguard the role and function of the Power Plant Hub at Tarbert, including the NORA Strategic Oil Reserves Plant, as a key driver of economic growth in the Region, encouraging its sustainable growth and diversification, in accordance with Regional and National Energy Objectives.

Lands west of the N67 on the approach to Tarbert Island, not including the subject site, are identified as a visually sensitive area, with views east across Tarbert Bay.

7.8.4. **Listowel Municipal District Local Area Plan 2020 – 2026**

Strategic Objective OS-08 supports the sustainable development of the land zoned within the Tarbert / Ballylongford area in accordance with the Strategic Integrated Framework Plan and County Development Plan. The site lies outside the settlement boundary of Tarbert.

8.0 Submissions and Observations

8.1. Notified persons

In accordance with article 6(2) of the 2022 regulations, the Minister sent notice of the application to the bodies identified in article 6(3). Art 6(2) provides for submissions and observations in respect of the likely main effects of the designated development on the environment or on a European site, or where an NIS is submitted, the likely adverse effects on the integrity of a European Site. The points raised in submissions in this regard are summarised below.

8.1.1. Health and Safety Authority:

Two submissions were received from the HSA. The submission received on 21/03/2023 supercedes that previously received on 13/03/2023 and notes the following.

- The HSA, acting as the Central Competent Authority under the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015, gives technical land use planning advice under the Planning and Development Regulations 2001-2021.
- Those regulations have been disapplied under the Development (Electricity Emergency Generation) Act 2022.
- The requirements of Regulation 12 of the Chemicals Act (COMAH) Regulations 2015 do apply, however, as the proposed installation relates to a modification of an existing upper tier COMAH establishment.
- The operator of the establishment is required to continue to adhere to all requirements of the Chemicals Act (COMAH) Regulations 2015.

8.1.2. Transport Infrastructure Ireland (TII)

- No specific observation to make in relation to access from the N67.
- A permit for the movement of abnormal loads must be obtained from each Local Authority through whose jurisdiction the vehicle shall travel.
- All national road structures on the proposed haul route should be checked to confirm their capacity to accommodate any abnormal load proposed.

- The applicant/developer should consult with all relevant parties involved in the management of the national road network traversed by the haul route to ascertain any operational requirements such as delivery timetabling.
- Any damage to the pavement on the national road arising due to delivery of abnormal loads shall be rectified in accordance with TII Pavement Standards. Details to be agreed with the Road Authority.

8.1.3. **Dept. of Housing, Local Government and Heritage - Development Applications Unit**

Archaeology

- The Department is broadly in agreement with the findings of the ER in relation to Archaeology and Cultural Heritage. Conditions recommended.

Nature Conservation

- As pile-driving will be carried out in rock onshore, rather than offshore, there seems to be no reason to disagree with the conclusion of the NIS that adverse effects on bottle-nosed dolphins within the SAC are unlikely.
- It is recommended that underwater noise monitoring is carried out before, during, and after, piling sessions within 20m of the Shannon Estuary, to ensure that the mitigation measures of the NIS are working adequately.
- Some estuarine bird species are sensitive to sudden noise changes. Piling can be a source of such disturbance.
- There seems to be no reason to disagree with the conclusion of the NIS that adverse effects on estuarine birds are unlikely as a result of piling.
- The inclusion of the Air Quality Modelling Assessment and the clarity of the reporting of this technical issue in the NIS are particularly welcome.
- The conservation target for total N deposition for Moanveanlagh Bog SAC is < 5 kg/N/ha/year3. The existing level of total N deposition is reported as 11 - 12.1 kg/N/ha/year. There appears to be, therefore, no allowance to be made for additional deposition of total N from the development to Moanveanlagh Bog.
- The modelled emissions of total N at Moanveanlagh Bog are identified and no additional loading from the baseline is predicted.
- The ADMS 5 model used has been validated by the CERC, and the basis for this regarding NOx dispersion appears to be well substantiated.

8.1.4. Environmental protection Agency (EPA)

- The existing generation station at Tarbert operates under IE licence P0607-02.
- The proposed activity will require a licence under the First Schedule of the EPA Act 1992, as amended.
- In considering any licence application, the EPA will assess all matters to do with emissions to the environment.
- It is also likely that AA will have to be considered by the Agency.
- The documentation should adequately address the potential impacts of emissions to air and cumulative effects with emission sources from other activities.
- The NIS should adequately address whether any parts of the proposed activity will adversely affect the integrity of European Sites with respect to the conservation objectives identified and describe any proposed mitigation measures.

8.2. Third parties

Article 6(6) states that submissions and observations may be made by any person in relation to the likely main effects of the designated development on the environment or on a European Site and, where a Natura Impact Statement is included with the application, the likely adverse effects of the designated development on the integrity of a European Site. The points raised in submissions received in accordance with article 6(6) are summarised below.

New Fortress Energy (STEP) Shannon Technology and Energy Park.

- Supports the development on the basis that it will be beneficial for national energy security.

9.0 Assessment of the Likely Main Effects on the Environment

9.1. Introduction

This assessment is undertaken under section 5(2) of the Development (Emergency Electricity Generation) Act 2002, for the purposes of ensuring that the objectives of the EIA Directive are met. In accordance with Article 8(1) of the Development (Emergency Electricity Generation) Regulations 2002, this assessment identifies the likely main effects of the designated development on the environment, in light of the purpose referred to in section 2(1) of the Act of 2022, and to the extent reasonably possible in light of the information contained in the application. The purpose set out in section 2(1) refers to "*development which is urgently required for the purpose of ensuring and protecting security of electricity supply by Winter of 2023 to 2024*".

This assessment is based on the information contained in the application, including the Environmental Report, appendices and associated figures and drawings. A consultant ecologist was engaged to assist the Board in the assessment of the likely main effects of the development on Biodiversity, and I refer to the memorandum from Ms. Monica Kane, Independent Ecologist and Environmental Consultant, received by the Board on 25/03/2023, in this regard.

Chapter 1 of the Environmental Report contains the Introduction and describes the methodology adopted. Chapter 2 describes the site and the main features of the Designated Development, while Chapter 3 describes the proposed works, including decommissioning.

Chapter 4 identifies, describes and assesses the likely main effects of the designated development, and identifies mitigation measures, in respect of the following environmental factors:

4.2 Air Quality
4.3 Noise and Vibration
4.4 Biodiversity
4.5 Population and Human Health
4.6 Land and Soils
4.7 Water
4.8 Climate

4.9 Material Assets

4.10 Cultural Heritage

4.11 Landscape and Visual

4.12 Traffic Management

4.13 Waste Management

4.14 Interactions

4.15 Cumulative

I have carried out an examination of the information presented by the applicant, including the Environmental Report and submissions made to the Board during the course of the application. In the context of article 7(2), I am satisfied that the Environmental Report has been prepared by competent experts, and that the report and supplementary information provided by the applicant, adequately identifies and describes the likely main effects of the designated development on the environment and is sufficient for the purposes of ensuring that the objectives of Directive 2011/92/EU as amended by Directive 2014/52/EU, are met. In this regard I am satisfied that the requirements of Article 7 of the 2022 regulations are satisfied.

Alternatives

Section 1.4 of the Environmental Report describes the Need for the Development and Alternatives Considered. These include the following:

- Do Nothing Scenario: In the absence of the emergency electricity generation development there is a risk that power outages could occur.
- Technology: The range of alternative technologies considered was limited to dispatchable temporary generation technologies which can be installed quickly, generate significant amounts of electricity with quick response times, and comply with environmental emission controls and legislation. The ability to meet the project timelines further limited the selection of technology.
- Site Selection: Tarbert and Shannonbridge were identified for temporary emergency generation development from a long-list of 18 no. sites based on a range of identified criteria. I note that the Act of 2022 specifically refers to the siting of such emergency generation plant at Tarbert generating station and in this regard, I do not consider that an examination of alternative locations is required for the purposes of the EIA directives. I refer to the guidance in relation to

reasonable alternatives set out in the 2018 Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, in this regard.

Having regard to the national energy policy context for the proposed development and the planning history relating to the subject site, it is considered that the requirements with regard to the consideration of alternatives has been adequately addressed in the application documentation.

9.2. Likely Main Effects on the Environment

The assessment is based on the requirements of article 8(2).

9.2.1. Air Quality

Baseline Environment

The designated development is proposed within the site of an existing generating plant which is subject to an EPA licence (P0607-02) and which is due to cease operation at end-2023. The 2021 AER for that facility reported one exceedance of emission limit values (ELVs) event relating to daily average dust emissions. Other minor issues were closed out satisfactorily following corrective and preventative actions, while other operational emissions were within licence limit values.

Air pollution legislation in Ireland is primarily based on the CAFE Directive, transposed into Irish law under SI 180 (Air Quality Standard Regulations) of 2011. Table 4-1 of the Environmental Report identifies the relevant air quality standards. I note also that Table 4.2 identifies the appropriate Environmental Assessment Levels (EALs) for nitrogen deposition for relevant sensitive habitats. The values for these Critical Loads (CL), are sourced from the UK Air Pollution Information System (APIS).

The closest residential receptors are located on the N67, approx. 250m southeast of the site, and adjacent to the southeastern site entrance.

Likely Main Effects

Construction activities associated with the designated development have the potential to generate dust and finer particulate (PM10 &PM2.5) emissions while vehicle emissions from plant and construction traffic movements on the surrounding

road network may also impact on air quality. In the majority of cases fugitive construction dust is deposited within 50m of the source. I note that the development does not involve demolition activity and that predicted construction traffic volumes fall well below the levels requiring modelling under TII criteria. I note that adjacent habitats are not of particular sensitivity to dust deposition.

I consider that such construction phase emissions can be adequately controlled through appropriate and standard mitigation measures which are outlined in both the Environmental Report and the Framework Construction Environmental Management Plan (CEMP). Such measures, together with separation of the main works area from the nearest residential receptors, will ensure that the proposed development will not give rise to any adverse impacts in terms of air pollution during construction.

Electricity generation through the combustion of distillate fuel will give rise to operational emissions of nitrogen oxides (NOX), nitrogen dioxide (NO2), sulphur dioxide (SO2), carbon monoxide (CO), and particulate matter ($PM_{2.5}$). The Environmental Report provides details of air dispersion modelling which was undertaken to assess the air quality implications for identified human and ecological receptors within 15km of the site. Background concentrations, sourced from EPA monitoring data for Zone D which represents rural locations, are noted to be well within the limits set out in the CAFÉ Directive. The assessment also considers cumulative sources of NOX and NO_2 emissions with sources in the surrounding area comprising Tarbert Power Station, Moneypoint Power Station and the proposed Shannon LNG power plant.

The assessment concludes that for human health receptors, the impact of the Designated Development and subsequent cumulative pollutant concentrations does not result in a significant effect on local air quality. While an elevated concentration for 24-hour SO_2 was initially identified at a number of receptors, further analysis demonstrated that there is very little prospect of a significant effect occurring having regard to the likelihood of the limited operating hours of the development coinciding with the worst meteorological conditions. Even in such scenario, there would be no exceedance of the relevant AQS.

With regard to ecological receptors, when considered in isolation, the impacts from Designated Development can be screened as insignificant. In terms NOx emissions,

when considered with other cumulative sources in the local area, impacts from the Designated Development can be screened as insignificant.

In terms of N deposition, the Designated Development has no perceptible impacts on ecological receptors, including SAC or SPA designated habitats. When considered with other cumulative sources in the local area, impacts on the majority of ecological receptors can be screened as insignificant. A number of sensitive locations, however, are constrained by background contributions, which already exceed the critical values. The N Deposition contribution of the designated development to such cumulative impact is negligible however, and no significant impacts from this temporary development are likely. I note the submission of the DAU in relation to NOx emissions and refer also to section 10.0 Appropriate Assessment, in relation to airborne pollution.

The modelling undertaken in relation to cumulative emissions is conservative and includes potential 5-week overlap with the operation of Tarbert Power Station (840 hrs), which is due to cease operating at end-2023. This plant would have significantly higher NOx emissions than the designated development, such that overall cumulative emissions will reduce post-2023. It also assumes the continuous operation of the proposed Shannon LNG power plant (24/7). Having regard to the temporary nature of the designated development and the results of the air dispersion modelling undertaken, it is not considered that that the development will have significant effects on air quality. In this regard, I note also that operation of the development will be subject to the terms of an IE licence from the EPA, including on-going monitoring of emissions.

On foot of the modelling presented in the environmental report, I am satisfied that the designated development will have no discernible impact on human health or ecological receptors in the area, and particularly those associated with Natura 2000 sites. The proposal development therefore will not have an unacceptable environmental impact and I am satisfied that air quality standards can be achieved.

Mitigation and Monitoring

- Implementation of a finalised CEMP, based on best practice guidance, standard construction site management and measures for the control of dust, and on-going inspection and monitoring.

- Preparation of a Dust Management Plan.
- Adherence to IE licence requirements and on-going monitoring.
- The short-term operational life of the development and its operation as intermittent, back-up plant with limited operating hours.

Residual effects:

No significant residual effects on air quality are considered likely.

In-Combination effects

Significant in-combination construction effects with the Prospect-Tarbert 220kV cable upgrade are unlikely having regard to the scale of development and subject to implementation of identified mitigation measures. Having regard to separation from other identified permitted and proposed developments, significant cumulative construction impacts are not likely. Air dispersion modelling indicates that the in-combination operational effects of the designated development on human and ecological receptors are not significant. Potential In-combination effects with Tarbert Generation Plant will cease at end-2023. Having regard to the separation from the proposed Shannonbridge Emergency Generation Plant (c.118km), significant in-combination effects on air quality are not considered likely.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to air quality would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of air quality.

9.2.2. **Noise and Vibration**

Baseline Environment

Sensitive receptors in the vicinity of the site include species of conservation interest in the surrounding area. The closest residential receptors occur c.250m southeast of the main development area. The existing power generation complex is subject to an IE licence from the EPA. The 2021 AER recorded one environmental noise complaint

in 2021, related to the testing of a safety valve within the plant, and compliance with the terms of the licence was otherwise achieved. Monitoring in respect of this license informs the description of the baseline environment, which notes that traffic movements on the N67 were a noticeable influence on daytime noise levels at nearby residential receptors.

Likely Main Effects

Construction activity will give rise to noise and vibration emissions. The expected duration of works is approx. 9 months, occurring over a seven-day week with potential for occasional working 24/7. Emissions will vary over the construction period, with piling activity being the most significant source of emissions. No piling will take place in the evening / night periods, however. The nearest NSR's fall within 'Category A' as described in the BS5228 ABC construction criteria presented in Table 4.24 of the Environmental Report, and presented in the table below:

Period	**Time**	**BS 5228 Criteria Category A**
Night-time	23:00 – 07:00	45
Evenings and Weekends	19:00 - 23:00 Weekdays 13:00 – 23:00 Saturdays 07:00 – 23:00 Sundays	55
Daytime	07:00 – 19:00 Weekdays 07:00 – 13:00 Saturdays	65

Noise modelling of construction activities has been undertaken which considers sound power levels for each item of construction plant, described in Table 4.3.4 of the Environmental Report. Given uncertainties in project specification, modelling of both vibratory and impact piling options has been undertaken. The model also takes account of the proposed acoustic barrier along the southern and western boundaries of the site. It is predicted that the highest construction noise levels at the closest residential receptor are associated with impact piling activity, however, these levels fall within the BS5228 day-time noise criteria value. The next most significant noise source is vibratory piling.

There is a predicted exceedance of the night-time noise criteria at the closest residential receptor from passing construction HGV movements, however. This is based on eight HGV movements per hour, with potential for significant adverse effects on residential amenity. The Environmental Report indicates that a restriction to 2 no. night-time HGV movements per hour would meet the night-time criterion values, although the resulting values are not identified. The Report further recommends, however, that night-time HGV movements should be avoided along the southeastern haul route to minimise adverse effects on adjacent houses and that use should instead be made of the main eastern site access. Given the potential for 24-hr activity on the site, I consider that this is reasonable and in the event of a decision to grant consent by the Minister, would be appropriate for condition in order to protect existing residential amenity.

Construction traffic volumes will be limited in nature and duration, and it is not expected that they would add significantly to existing noise levels on the N69. In respect of the N67, existing traffic volumes are associated primarily with ferry operations. In assessing peak construction traffic movements, the environmental report notes that in order to avoid adverse impacts on residential amenity at night-time, regular HGV movements along the N67 should be avoided outside the ferry operating times, although this is not clearly identified as a mitigation measure.

Estimated peak traffic volumes occur over a 6-week period and reduce significantly outside this period. I note that it is otherwise recommended to limit the number of night-time HGV movements to two per hour and restrict access via the southeastern entrance. Having regard to these measures, to the emergency nature of the development, and the limited number of receptors likely to be affected along this national road, it is not considered that unacceptable impacts would otherwise arise in this regard.

Operational noise emissions will be limited to periods when the emergency generation facility is dispatched by the TSO, limited to 500 hours per annum, and will not be continuous in nature. The Environmental Report states that noise modelling has been undertaken by the plant suppliers (GE), which takes account of proposed acoustic screens described in the Environmental Report as an application of Best Available Technology, comprising:

- 3 no. 8m high and 21m long barriers to the south-east corner of each generator.
- A 5m high and 45m long barrier south of the plant area, south-east of the new substation.

It is indicated that subject to such measures, the EPA NG4 assessment criteria for the night-time period of 45dB LAeq,T, will be met at the closest residential receptor (NSR 1). Subject to such mitigation measures, the impacts on residential receptors are not regarded as significant. Such operational emissions will be subject to control and monitoring as part of the IE licence requirements.

The impact of noise and vibration emissions on habitats and species of adjacent European Sites is discussed in the NIS and is not addressed in the Environmental Report. Appendix E of the NIS provides the results of analysis of the effects of construction noise on ecological receptors. In this regard, I refer to section 9.2.3 of this report *Biodiversity*, and Section 10.0 *Appropriate Assessment*, which sections conclude that subject to the identified mitigation measures, having regard to the timing of most site works outside the main wintering bird season, no significant disturbance effects on SCI for the SPA and on aquatic fauna of the SAC are likely.

Mitigation and Monitoring

- Implementation of the CEMP and standard good site management measures set out therein, including community liaison procedures and monitoring during periods of high noise activities.
- Limits on the timing of piling activities.
- Erection of an acoustic barrier around the perimeter of the site.
- Limits on night-time HGV movements and on use of the south-eastern entrance by HGV traffic during the night-time period.
- Operational adherence to specified emission limit values and the requirements of an IE licence, including long-term noise monitoring.
- Provision of operational acoustic barriers and fitting of silencers and attenuators.

Residual Effects

No significant residual effects are anticipated.

In-Combination effects

The existing power generation complex is subject to an IE licence from the EPA and the 2021 AER generally recorded compliance with the noise ELV's thereof. That facility is due to cease operations at end-2023. Having regard to recorded operational noise levels at the existing plant and subject to the identified mitigation measures, significant in-combination operational noise effects. Having regard to the nature and scale of the proposed Prospect – Tarbert 220kv upgrade project, and subject to application of the identified mitigation measures, significant-combination effects are not considered likely. I refer also to section 9.2.3 of this report in respect of potential in-combination noise effects on biodiversity.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to noise and vibration would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the designated development would not have any unacceptable direct, indirect or cumulative impacts in terms of noise and vibration.

9.2.3. **Biodiversity**

Baseline Environment

The designated development will take place on brownfield lands within the existing generating station complex, which operates under an EPA licence. The site immediately adjoins the Lower Shannon Estuary cSAC and River Shannon and River Fergus SPA. Tarbert Bay pNHA lies to the south and east of Tarbert Island.

The development site is not of high ecological value, comprising sparse grass and scrub habitat, and hardstanding with limited vegetation cover. The Environmental Report describes habitats within the site as typical of those associated with an industrial facility. An area directly west of the existing Tarbert Power Station building, to be used as a site compound and laydown area, comprises existing hard standing. Other laydown areas along the northern edge of the wider generation campus comprise made ground with hardcore surfaces, grass verges and recolonising bare ground, in low intensity / occasional storage use.

No rare or protected flora were recorded within the development site. While no scheduled invasive plant species were recorded, other low and medium impact non-native species were identified within the site. The timing of site surveys was not optimal, however, having regard to the nature of the extant habitats and the results of previous surveys of the site, the conclusions of the Environmental Report are considered to be reasonable.

Surveys did not record evidence of any bird, mammal or other fauna of conservation interest on the main development site. Foraging and roosting activity by a range of SCI and other waterbird species was observed in the lagoon to the south of the development site and the estuary. Surveys did not record any signs of otter activity on the site. The Environmental Report notes that the site and immediate surrounds provide limited opportunities for resting sites for otter, such that they are unlikely to occur within 150m of the site. These findings are supported by the results of previous surveys undertaken in respect of PA ref. 18/392. There is no potential for roosting bats and limited foraging potential, however the Environmental Report indicates that were they to occur, they would be habituated to existing conditions of the Site (including artificial lighting) such that significant effects are not likely. I note that lighting is provided on the adjacent terminal jetty and existing internal roads along the northern shore of the island.

The Environment Report notes that no requirement to obtain specific protected species licences prior to construction has been identified.

Likely Main Effects:

There will be no direct loss or damage to habitats of value, or to designated habitats or features of the SPA or SAC, however, the Environmental Report identifies the following potential effects upon ecological features:

- Loss of functionally linked habitat, which could support SPA / SCI species.
- Indirect effects upon SAC designated habitats, due to air or waterborne pollution or changes in hydrological conditions (quantity and quality);
- Loss and disturbance to habitats within the Site; and
- Disturbance effects from construction noise, lighting or changes in site conditions influencing species movements/dispersal/foraging.
- Operational disturbance to species and habitats.

Having regard the nature of existing habitats on the site, no significant impact from the direct loss of habitats will arise for foraging fauna or roosting birds.

With regard to waterborne pollution, I refer to the assessment set out in Section 9.2.6 of this report, and in Section 10.0 Appropriate Assessment. Construction activity has the potential to give rise to the release of sediments, contaminants or other pollutants to water bodies. Subject to standard measures for the management of construction activity, as identified in the Environmental Report and CEMP, I am satisfied that significant impacts on biodiversity in this regard are not considered likely.

The application states that operational storm water will connect to the existing surface water drainage network and that all flows from the site will pass through oil interceptors prior to discharge. While there is a lack of detailed design information in the application documentation in relation to surface water drainage, I am of the view that sufficient protocols and mitigation measures can be put in place to ensure that significant water quality impacts do not arise from activities at the site. The Environmental Report describes such standard pollution prevention and mitigation measures. Subject to their implementation and adherence to best practice guidance, including guidance published by the EPA, it can be concluded that significant effects arising from waterborne pollution will be avoided. I note also that the development will be subject to an operational IE licence which will include monitoring of discharges to ensure the on-going effectiveness of the implemented measures.

I refer to section 9.2.1 above, in respect of operational emissions to air, and to Section 10.0 *Appropriate Assessment*. The duration of deployment of the proposed generating plant is short-term, while actual operational emissions will be limited to 500 hours per annum and will be subject to the terms of an EPA licence. Modelling of emissions to air (Appendix D of the Environmental Report) indicates that there will be no significant effects on ecological receptors.

The main development area adjoins the SPA and SAC. Construction activity, particularly piling works, raises the potential for noise and vibration disturbance effects thereon. I refer also to the discussion in section 10.0 of this report, *Appropriate Assessment* in this regard. Modelling of construction noise emissions was undertaken, taking account of proposed acoustic barriers, which indicates that general construction activity will not give rise to significant noise levels in the adjacent

habitats. The primary source of significant noise disturbance would be piling activity, and impact piling in particular. There will be some elevated noise levels close to the site, which could give rise to disturbance effects on waterbirds in the area. Activity on the site also gives rise to potential visual disturbance of SCI species. The primary mitigation measure proposed in this regard is an acoustic and visual barrier along the perimeter of the site (see Figure 12 of the NIS).

Wintering bird surveys were undertaken between November 2022 and January 2023. In the context of bird numbers recorded within the overall SPA, the numbers of waterbirds potentially subject to disturbance effects are not significant. In this regard, I refer to the results of monitoring undertaken in 2017/2018 on behalf of Clare County Council in this regard (MKO)[1]. Furthermore, having regard to the indicative construction schedule and provisions of the Act of 2022, it is noted that the main construction activities will occur largely outside the peak wintering bird season. In this regard, subject to the identified mitigation measures including Best Practice Measures and Soft-Start procedures, and having regard to the duration of construction activity, significant disturbance impacts at the population level are not anticipated. I note the submission from the DAU in this regard.

Notwithstanding this finding, it is considered appropriate to extend the proposed acoustic / visual barrier further along the northeastern shore of the island, in order to provide screening from ancillary construction activity and traffic for birds using the intertidal area and shore to the east of the lighthouse. Furthermore, it is considered appropriate that the additional mitigation measures identified in Appendix E of the NIS be implemented to reduce the local disturbance effects of construction / piling noise on birds occurring close to the site.

Surveys recorded non-SCI bird species on and around the site, including snipe. The Environmental Report acknowledges the obligations arising under the Wildlife Act in this regard and identifies measures for the protection of breeding birds, including pre-development surveys. Having regard to its sensitive location on the estuary and the temporary nature of the proposed development, it is considered reasonable and

[1] MKO, (2019). Waterfowl numbers, usage and distribution on the River Shannon and River Fergus Estuaries - Final Survey Report. 170160 – F – Final Survey Report – 2019.01.30. 170160 – F –Final Survey Report – 2019.01.30. Vol1 Appendix 1, Vol 2 Appendix 1-3.

appropriate that a programme of bird monitoring be undertaken over the life of the project. This is recommended by way of condition.

Fish and marine mammals, (Bottlenose Dolphin) are sensitive to impacts of noise and vibration and this part of the estuary is identified as a Critical Area for dolphin. There are no works proposed within marine waters, however, and on-shore construction activity will have a reduced disturbance effect on aquatic species. The only works with potential to generate sufficient noise or vibration levels to transfer through the ground into marine waters is piling. I refer to Section 10.0 *Appropriate Assessment* of this report, and the conclusions with regard to potential construction noise on aquatic species of the SAC and also the submission of the DAU within regard to piling impacts.

Previous studies in the estuary, described in section 10.0 below, have concluded that on-shore piling is not likely to have any physical effects on marine mammals, although adverse effects from disturbance could arise if unmitigated. I note that the mitigation measures identified in the NIS and CEMP are broadly aligned with the 2014 DAHG publication *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters*. e.g. soft-start procedures, although the use of Marine Mammal Observers (MMO's) is not proposed. On the basis of the information available, and notwithstanding the submission from the DAU, I cannot conclude that impact piling activity would not give rise to disturbance effects and in this regard I note also the potential overlap between construction works and the calving season of dolphin in the estuary. I therefore consider it appropriate that impact piling activity be undertaken in accordance with the provisions of the 2014 Guidance, to include the use of MMO's. Having regard to the on-shore location and scale of the development proposed, it is considered reasonable that the monitoring zone be subject to agreement with the regulatory authority. Subject to such measures it is concluded that significant effects on marine mammals can be avoided.

With regard to night-time activity on the site it is considered appropriate that lighting design adhere to best practise guidance and that some restrictions on the use of LED lighting on the site be applied. I note the mitigation measures identified in the Environmental Report and CEMP in this regard.

Having regard to the location of the development within the existing power generation complex, and the height of existing buildings, stacks and overhead lines, and the results of the bird surveys undertaken, it is not considered that significant effects on birds by reason of collision with plant or structures will arise.

Mitigation and Monitoring

Construction:

- Adherence to a finalised CEMP, including measures to obviate pollution of waterbodies, or terrestrial habitats and materials and stockpile management, in line with best practise and guidance.
- Appointment of an Ecological Clerk of Works.
- Installation of an acoustic barrier around the site perimeter, to also act as a visual screen from adjoining habitats, and its extension along the northeastern shore.
- Adherence to the provisions of the 2014 DAHG publication *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters* in respect of impact piling.
- The adoption of BPM methods for piling, including soft-start techniques, and restrictions on the timing of piling activities.
- Adherence to legislative requirements.
- Pre-development habitat surveys and timing of clearance works where possible.
- All measures identified in the NIS, including lighting design.
- Delineation of works areas and no encroachment into riparian habitat.
- Pre-works otter surveys and excavation design and management.
- On-site speed limits.
- Construction lighting design.

Operations:

- Standard measures for the management and control of polluting substances, including bunding and connection to the existing surface water management system in accordance with industry best practise.
- Lighting design to minimise light levels in the estuary and the creek to the south.
- Limited permitted hours of operation and adherence to IE licence requirements, including noise limit values.

Residual Effects

No significant residual effects following mitigation are predicted.

In-Combination effects

The analysis of air quality impacts includes cumulative emissions from power generation plants in the surrounding area at Tarbert, Moneypoint and the proposed plant at Shannon LNG. The contribution of the Designated Development to the cumulative impacts of nitrogen deposition and NOx would be negligible and would not have a significant on any ecological receptors. It is further noted that in-combination effects with Tarbert station would not arise after end-2023. Having regard to the location of development and project timeline, concurrent construction noise impacts with other permitted or proposed projects in the area are not likely, particularly in terms of piling works.

Having regard to the nature and scale of development in the proposed Prospect – Tarbert 220kv upgrade project and 400kV Cross Shannon Projects, and subject to application of the identified mitigation measures including adherence to 2014 DAHG Guidance, significant-combination effects are not considered likely. No other developments occur in the vicinity of the site which are likely to give rise to cumulative constructional or operational impacts.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to biodiversity would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of biodiversity.

9.2.4. **Population and Human Health**

Baseline Environment

The designated development is located within the existing generating station complex. The main settlement of Tarbert is located almost 2km south of the site and the closest residential receptors are located approx. 250m to the southeast of the main works area, just off the N67.

Likely Main Effects

The development will result in potential slight short-term positive impacts from employment and economic spend associated with the construction of the development. Due to the low level of operational employment, no significant impacts are likely.

The site is located within the overall generation complex and at a remove from residential receptors. Construction activity has the potential to give rise to dust emissions, however, subject to the identified construction mitigation measures and separation distances, no significant impacts on human health are likely. I refer to section 9.2.1 above in this regard. Having regard to the limited duration of construction activity and of peak traffic generation, no significant congestion or traffic impacts are likely during construction. A Framework Construction Traffic Management Plan (CTMP) has been prepared and will be updated by the Contractor to mitigate any impact on the surrounding road network. I note the recommended restrictions on night-time HGV movements under section 9.2.2 above. Construction activity will be temporary in nature and the assessment in the Environmental Report indicates that subject to identified mitigation measures, significant adverse impacts on human receptors in terms of noise and disturbance are unlikely.

The development will operate as a last-resort generating plant and will not therefore operate continuously. Modelling of emissions to air does not identify any significant effects on human health. Operational noise modelling indicates that there will be no negative impacts on nearby receptors, subject to the identified mitigation measures. The development will be subject to the terms of an IE licence including on-going monitoring. Significant impacts on human health from the intermittent operation of the plant are not expected.

The development will provide temporary generating capacity which will address the potential for an emergency shortfall in electricity supply nationally and have a potentially positive effect on human beings in terms of security of energy supplies.

Mitigation and Monitoring

- Separation from sensitive residential receptors and location within an existing energy generation complex.

- Adherence to the CEMP and identified construction management measures for the mitigation of noise and dust impacts.
- Adherence to the finalised Construction Traffic Management Plan and restrictions on night-time HGV movements.
- Temporary duration of construction activities.
- Installation of acoustic barriers during construction and at operational stage.
- Operational compliance with the terms of an EPA licence in respect of noise and air quality.

Residual Effects

No significant residual effects are anticipated.

In-Combination effects

The assessment of air quality indicates that the designated development either on its own or in-combination with other projects in the surrounding area (incl. Tarbert, Moneypoint Power Stations and the proposed Shannon LNG development) is not likely to result in an exceedance of air quality objectives and standards. Significant impacts with the proposed Prospect – Tarbert 220kV cable project are not likely, having regard to the scale of that development and subject to implementation of identified mitigation measures. Having regard to separation distances and project timelines, and subject to the identified mitigation measures, significant cumulative construction impacts with other developments in the area are not likely.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to population and human health would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of population and human health.

9.2.5. **Land and soils**

Baseline Environment

The main development area is generally comprised of made ground and artificial surfaces within an existing industrial complex. Groundwater monitoring within the overall Tarbert Island site in 2021 concluded that there is no significant evidence of site-derived pollution, other than low level hydrocarbons reported in the vicinity of the HFO pump house. The Environmental Report refers to a number of localised incidents of heavy fuel oil losses to ground, most recently one to the northeast of the turbine hall in May 2022.

Likely Main Effects

The development will not result in the change of use of any lands or the loss of significant soil resources. The proposed plant will be sited on a concrete pad or pre-prepared level area. The Environmental Report notes that at the time of writing, ground investigations were not complete and earthwork requirements were continuing to be investigated. The Environmental Report estimates a requirement for 29,000m^3 of cut and 7,000m^3 of fill materials. There will be no interference with existing capped landfill areas within the overall site. The Environmental Report identifies the following likely impacts:

- Temporary impacts on soil structure from excavation, smearing and compaction.
- Impacts on soils, surface and groundwater water quality due to deposition or release of sediments or other pollutants or mobilisation of existing contamination.
- The remediation / removal of any encountered soil contamination may have positive impacts on groundwater quality.
- Impacts on surface water and groundwater regimes.
- Alteration in overland flow paths.
- Dust impacts, including potential for mobilisation of contaminated dust.
- Potential for accidental spillages or leakages of fuels or other contaminants to ground or to groundwater during operations.

Mitigation and Monitoring

- Adherence to the measures described in the Environmental Report and CEMP, including standard construction management and mitigation measures, to avoid the release of sediment or soils, or other contaminating materials to water bodies or ground, including stockpile management measures and water quality including monitoring.

- Preparation of a Dust Management Plan.
- Adherence to a Construction Traffic Management Plan and a Resource Waste Management Plan.
- Adherence to best practice guidance for the storage and transfer of potentially pollution materials (EPA 2013).
- Identified measures to address any adverse effects arising from the presence of contaminated land or materials encountered and adherence to EPA Guidance.
- Adherence to IE licencing requirements, including the preparation of a Decommissioning Plan.
- Post-construction water quality monitoring.

Residual Effects

No significant residual effects are anticipated.

In-Combination effects

Having regard to the existing and historic use of the lands it is not considered that significant in-combination effects with the adjoining power station development would arise. That facility is also subject to on-going monitoring under its IE licence. Having regard to separation distances and project timelines, significant in-combination construction phase impacts with other developments in the area are not likely. Similarly significant in-combination effects with the proposed Prospect-Tarbert 220kV cable upgrade are not considered likely.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to lands and soils would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of land and soils.

9.2.6. **Water**

Baseline Environment

The designated development will take place within the existing generating station complex which operates under an IE licence from the EPA. The Lower River Shannon Estuary is classified as a transitional water body, whose quality is classified as ‘unpolluted’ (EPA Transitional Water Quality 2018-2020). Its Water Framework Directive (WFD) status recorded as ‘good’ and “not at risk”.

The site overlies a ‘locally important aquifer – moderately productive only in local zones’ and bedrock depths vary across the site. Groundwater monitoring in 2021 as part of existing IE licence requirements concluded that the main groundwater quality issues at the site relate to saltwater influence from the estuary and there is no significant evidence of site-derived pollution, other than low level hydrocarbons reported in the vicinity of the HFO pump house.

An existing surface water network serves development on the wider Tarbert Island site, which discharges to the estuary. All stormwater with potential to become contaminated, passes through oil interceptors prior to discharge, which is monitored. While the existing stormwater network does not currently serve the main development area in this case, it is proposed that the designated development will connect to it. Similarly, the development is to connect to the existing mains water supply and the adjacent wastewater treatment system on the wider site, which is subject to regular sampling.

There is no history of flooding on the island, however, parts of the overall Tarbert Generation Station site are at risk of coastal flooding (1:1000 year / 0.1% AEP and 1:200 / 0.5% AEP) in the Current Scenario. This includes some areas identified for laydown / construction compound use on the northern shores of the island. In the Mid-Range Future scenario taking account of the effects of climate change, CFRAMS and the National Coastal Flood Extents indicate that the site is at risk of flooding in the low and medium probability scenarios (1:200 year / 0.5% AEP - 1:1000 year / 0.1% AEP). The N67 access road would be impassable either side of high tide in a flood scenario. The 2009 Flood Risk Management Guidelines identify essential infrastructure, such as utilities distribution, electricity generating stations and sub-

stations as highly vulnerable development, which require the application of a justification test where within Flood Zones A or B.

Likely Main Effects

The Environmental Report identifies the following likely impacts:

- Potential spill or mobilisation of sediments or contaminants during construction with possible effects on the groundwater and surface water environments.
- Direct construction impacts on adjacent waterbodies.
- Temporary dewatering of excavations could impact on the ground water regime.
- Piling could create a potential contaminant pathway to underlying groundwater.
- Potential spills or leaks of fuels or other contaminants to ground or surface waters during the operational phase.

In addition, it is noted that potential flooding / inundation of the site could give rise to the mobilisation of contaminants and infrastructure unavailability. I refer also to Section 10.0 below, Appropriate Assessment, in respect of waterborne pollution.

Construction activity has the potential to result in the release of sediment to waterbodies. Any effect arising in terms of increased turbidity or localised sediment deposition will be short-term and having regard to the extent and naturally turbid nature of waters in the estuary and potential for dispersion by local currents, significant effects from sediment deposition for local benthic habitats and fauna are not likely.

Accidental release or spillage of chemical pollutants or other contaminants during construction or operational stages could negatively impact surface water quality, and dependent habitats and fauna. There is also potential for spillages or discharges of contaminants to reach ground water. The application identifies a range of standard, best practise construction mitigation and monitoring measures, in accordance with published guidance (including CIRIA and IFI guidance). These are described in the Environmental Report and Framework Construction Environmental Management Plan. Subject to such measures, I am satisfied that the potential for uncontrolled release of sediment or other pollutants during construction would be satisfactorily mitigated.

The Environment Report states that all works are to be carried out in accordance with EPA “Guidance on the Management of Contaminated Land and Groundwater at EPA Licenced Sites”. Groundwater monitoring in 2021 as part of existing IE licence requirements concluded that there is no significant evidence of site-derived pollution, such that significant impacts arising from mobilisation of existing contaminants are not likely. The Environment Report indicates that a piling risk assessment is to be prepared in advance of any piling works to prevent risk of a pathway for groundwater pollution and in this regard, no significant residual effects are considered likely.

Operational water demands will be for domestic purposes only and will not be significant. Wastewater will discharge to the existing WWTP serving the wider generation plant and which is subject to monitoring as part of the IE licence requirements. The Environmental Report states that the development will not give rise to any demand for process or cooling water and that that there will be no process effluent discharges. I note that the capped landfill sites are not to be interfered with.

The application states that operational storm water run-off will connect to the existing surface water management system, passing through oil interceptors prior to discharge. Sustainable drainage systems are to be provided in accordance with the SuDS manual. In the event of an incident, the Environmental Report notes that spillages, firewater runoff will be retained on-site through kerbing, bunding and closure of drainage systems in accordance with the requirements of the IE Licence and COMAH.

The discharge of contaminated waters to the estuary due to spills or leakages at the site could impact significantly on water quality and on dependent habitats and species. Such spills could arise from activities such as discharge of wash-down water, spillage of wastewater effluent, refuelling spillages or spillages of other contaminants. I note the lack of detailed design proposals contained within the application in relation to surface water drainage and discharge arrangements. In this regard, I note the provisions of the 2022 regulations which state that any Environmental Report shall include information “*to the extent that such information is reasonably available to the applicant at the time of the application*”.

Notwithstanding the lack of drainage drawings, I am of the view that sufficient protocols and mitigation measures, as described in the Environmental Report and CEMP, can be put in place to ensure that significant water quality impacts do not

arise from activities at the site. I consider it appropriate that development be required to adhere to industry best practise and EPA guidance in relation to the design and implementation of these measures, including EPA document IPC *Guidance Note on Storage and Transfer of Materials for Scheduled Activities* (2013). Having regard to the licenced nature of discharges, I do not regard it as necessary or appropriate to apply a condition requiring compliance with regulations in respect of water quality.

There is also potential for more significant events to give rise to impacts on water quality, such as the release of contaminated firewater, notwithstanding the likelihood of such occurrence and the significant assimilative capacity of the estuary. In this regard, I note that the development includes the provisions of a 2500m^3 raw and fire water tank on the site. The risk arising from the release or discharge of contaminated firewater is not unique, however, and arises in respect of all such facilities and is well understood. The mitigation of such risk is the provision of adequate firewater retention in accordance with industry standards and best practise guidance. The EPA has published detailed guidance in this regard. This document, *Guidance on Retention Requirements for Firewater Run-off* (2019), is written primarily for sites licenced by the EPA and regulated under the EPA Act, 1992 (as amended). I am satisfied that subject to the application of such design standards, no significant residual risk would arise in relation to contaminated firewater.

In carrying out this assessment under the provisions of the 2022 Act and regulations, I consider that the employment of the specific mitigation measures as set out in the Environmental Report and CEMP and adherence to industry best practise in relation to water management at construction and operational stages, will provide satisfactory pollution control measures to avoid negative impacts on water quality. Such best practise should include design in accordance with the EPA guidance referenced above.

Furthermore, I note that operational water management and discharge quality will be the subject of limits and monitoring under any IE Licence issued by the EPA. The COMAH Regulations 2015 (S.I. No. 209 of 2015), also require owners of facilities to take all measures necessary to prevent major accidents, and to limit consequences for both human health and the environment of such accidents.

Finally, I note the location of the site on the estuary, whose extent and dynamic nature provides a very large assimilative capacity and considerable dilution and dispersion in the unlikely event of a pollution episode. In this regard, and notwithstanding the absence of specific design detail, I consider that concerns in relation to water pollution can be adequately addressed by the identified mitigation measures and adherence to identified best practise design standards.

Flooding

The application contains no details of existing or proposed ground levels or finished floor levels. Based on details submitted in respect of PA ref. 18/392, existing ground levels are understood to be approx. 6.5 - 6.8m (Poolbeg) across the site[2]. No flood Risk Assessment has been undertaken in respect of the Designated Development, however, the Environmental Report refers to a FRA prepared in 2010 in respect of a previously permitted 450MW power plant development on adjacent lands (PA08.PA0017). That FRA provided for a ffl of 7.5m OD Poolbeg for a 0.1% AEP, including an allowance for climate change, and identified a preferred flood defence design along the frontage to the estuary and tidal inlet to the south.

The previously permitted battery storage development (PA ref. 18/392) proposed raising levels on the site and, following consultations with the planning authority, adopted a floor level of 7.6m OD Poolbeg, based on a 1:1000 event plus a High-End Future Scenario allowance.

The submitted Environment Report indicates that options are being considered in respect of flood risk but that they are not assessed within the report. As part of the identified climate adaption / mitigation measures, the report states that consideration will be given to temporary flood prevention measures and that critical equipment will be raised above estimated peak flood level, although such predicted levels are not specified.

The site layout plans identify a flood defence wall around the perimeter of the site, however, no details regarding the design of this wall are provided. I consider that such a measure is a viable solution to flood risk at this location and generally reflects

[2] This equates to approx. 3.8m – 4.1m OD Main

the approach of the previously permitted development on these lands (PA0017). In the event of the Minister deciding to grant consent for the designated development, it is recommended that the completion of this flood defence wall be undertaken to protect the site from the risk of a 0.1% or 1 in 1000-year event in the National Coastal Flood Extents 2021 - Mid-Range Future Scenario (i.e. address the risk associated with location in Flood Zone B). Combined with the climate adaption measures identified in the Environmental Report, it is considered that, in the absence of a site-specific Flood Risk Assessment this would constitute a suitably conservative approach in this case.

While this application to the Minister does not fall under the provisions of the Planning and Development Act, it is considered reasonable to have regard to the guidance set out in the Planning System and Flood Risk Management Guidelines for Planning Authorities (November 2009) and the requirement to complete a Justification Test in respect of the designated development. In this regard, I note the following points:

1. The subject lands are and have been zoned for industrial development and have been in long-term use for power generation purposes.
2. Previous proposals on these lands have been subject to flood risk assessment. On the basis of those assessments, it is evident that:
   i. The designated development will not increase flood risk elsewhere, although it will not reduce overall coastal flood risk.
   ii. The designated development proposes the construction of a flood defence wall and raising critical equipment above predicted flood levels. No details of levels or heights in this regard have been provided, however.
   iii. Adequate measures can be prescribed to ensure that residual risks to the area and the development can be managed to an acceptable level. With regard to emergency access along the N67, I note that this is tidally influenced and short-term in duration. Within the overall power generation site there are areas of safe refuge available.
   iv. The designated development will be compatible with the achievement of wider planning objectives.

I therefore conclude that the development is acceptable with regard to flood risk.

Mitigation and Monitoring

- Adherence to the finalised CEMP, to include standard measures for the management of surface waters and the management and control of sediments and other polluting and contaminating substances, including adherence to published guidance, including CIRIA and IFI guidelines.
- *Works in accordance with EPA Guidance on the* Management of Contaminated Land and Groundwater at EPA Licenced Sites
- Limited requirement for excavation and dewatering. Any contaminated groundwater encountered will be tankered off-site for treatment.
- Design of the existing and proposed drainage system, including the use of oil interceptors prior to discharge, and a regular inspection regime.
- Appropriate bunding of potential contaminants / fuel storage and adherence to published guidance, EPA *IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities (2013) as amended* and *Guidance on Retention Requirements for Firewater Run-off (2019).*
- Installation of a flood defence wall and application of the climate adaption measures identified in the Environmental Report. Critical equipment to be raised above estimated peak flood level.
- Preparation of an Emergency Response Plan detailing actions in the event of a possible flood event.
- A programme of inspection and water monitoring will be implemented.
- Adherence to IE licence requirements.

Residual Effects

Subject to the identified mitigation measures, no significant residual effects on any surface water or groundwater bodies in the vicinity are predicted. Should the development proceed, operational water control and discharge measures will be the subject of strict monitoring through any licence issued by the EPA.

In-Combination effects

Existing operations on the site adhere to IE licence requirements. The development will not give rise to any significant additional water demands and significant in-combination effects with the existing power plant are not anticipated. Subject to the identified mitigation measures, no significant in-combination impacts on water quality

with other developments are likely. The development will not create a risk of flooding or worsen flooding effects elsewhere. No significant cumulative construction impacts are anticipated.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to Water would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of Water.

9.2.7. **Climate**

Baseline Environment

The designated development is proposed within the site of an existing generating plant which is subject to an EPA licence (PO607-02). It has operated under a limited derogation from compliance with the strict limits set out in the Large Combustion Plant) Regulations 2012 and is due to close at end-2023.

The Environmental Report notes the objective of the 2022 Act to provide emergency generation capacity to protect security of supply of electricity in the State. It notes the provisions of the Climate Action Plan 2023 with regard to ensuring that critical services remain operational at all times, which may require fossil fuel sources to provide back-up/emergency power when there is a temporary shortfall in energy supply. The Environmental report describes this as a short-term measure, as the grid continues to decarbonise and progress towards a net-zero emissions target by 2050.

The National Energy Security Framework (April 2022) emphasises the need to ensure security of supply while reducing dependency on fossil fuels in the long-term. It supports the CRU Programme of Work, which includes the procurement of temporary emergency generation capacity until enduring capacity has been secured.

Likely Main Impacts:

- The development will have a negative impact on climate arising from the release of GHG during the construction, operational and decommissioning phases.

- Total operational emissions of 60,150 tonnes CO2e per annum are predicted, based on max. 500 operating hours per annum. This comprises direct emissions of 48,803 tonnes CO2e/year and 11,348 tonnes CO2e of indirect Scope 3 Well to Tank (WTT) emissions.
- Potential climate impacts arise in terms of the risk of flooding, extreme weather conditions or increased temperatures.

Mitigation and Adaptation Measures:

- Adherence to measures identified in the CEMP to minimise emissions, including measures relating to the sourcing of materials, plant selection, reuse of materials, waste management.
- Flood prevention / defence measures.
- Storm water management, planning and design and drainage maintenance.
- Selection of services, plant and materials resilient to extreme events.
- Suitable storage and bunding of any pollutants to protect from high rainfall events.
- The temporary nature of the proposed development and limited operational hours.

Residual Effects:

Operational combustion of fuel oil will result in a negative effect on climate in terms of carbon emissions, with resultant knock-on effects for the achievement of climate change and emission reduction targets. Projected emissions equates to <0.1% of national $C0_2$ emissions in 2021. Notwithstanding this, I note the urgent need for the designated development identified in Section 2 of the Act of 2022, to ensure and protect security of electricity supply and the temporary period of deployment of the facility, which would operate for no more than 500 hours per year. The plant will only be deployed by the TSO as a last resort if all options in the market have been exhausted or where market-based measures alone are not sufficient to prevent a further deterioration of the electricity supply situation. This temporary capacity will be removed from the system as other, more enduring capacity is delivered.

Such temporary capacity will support the movement to a primarily renewables-based national generation system by providing flexible conventional generation capacity as a support and backup capability only. I note the provisions of the Climate Action Plan in relation to ensuring security of electricity supply and delivery of conventional generation capacity in this regard. While the development will comprise oil-fired

rather than gas-fired generation capacity, it is not regarded as being wholly inconsistent with the objectives of the Climate Action Plan. Having regard to the temporary nature of the designated development and the exceptional circumstances identified in s.10 of the Development (Emergency Electricity Generation) Act 2022, this temporary development is not regarded as unacceptable in principle.

In-Combination effects:

There will be some in-combination effects with other existing and proposed conventional power generation development in the surrounding area. It is noted, however, that Tarbert Power Station is due to close at end-2023, with an overall reduction in GHG emissions. While there will be in-combination effects with the proposed emergency generation development at Shannonbridge (ABP-305836-23), in the context of the National Energy Security Framework such temporary developments are not considered to be unacceptable, and are not wholly incompatible with the objectives of the Climate Action Plan and the longer-term move to a renewables based generation system.

With regard to Flooding, I refer to section 7.2.7 above. Having regard to the scale and extent of the estuary, the implementation of measures to protect the site from coastal flooding events is not considered likely to result in any significant impact in flood levels elsewhere. Significant in-combination effects are therefore not considered likely in this regard.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to climate would be satisfactorily avoided, managed or mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of climate.

9.2.8. **Material Assets (incl. waste management):**

Baseline Environment

The proposed development will take place within the existing generating station complex and will make use of existing water, drainage, utility and roads infrastructure

serving the long-term electricity generation use at this site. The existing surface water drainage network incorporates interceptors and monitoring, prior to discharge to the estuary at a number of locations around the island.

Likely Main Effects

The Environmental Report estimates that excavation of c.29,000m3 of soils will be required. The report cites a national recovery rate for such material of 78% and concludes that the impacts arising from such volumes are not significant. I note the findings of previous groundwater monitoring with regard to the absence of significant evidence of site derived pollution, although excavations may encounter some contaminated soils on site. Relatively small quantities of hazardous construction waste arising are also likely. No significant operational waste generation is likely.

Access for construction phase traffic will be available via two existing entrances from the N67, to the east and southeast and the existing internal roadways. No change in land use will arise.

Construction activity will give rise to relatively minor power requirements and no significant impacts on telecommunications are likely. Water supplies are sufficient to meet demands during construction and operation. Wastewater arising during construction will be collected and transported off-site for treatment, while the operational development will connect to the existing wastewater treatment plant. Standard controls and processes will be implemented during construction and operation, including the bunding of potential contamination sources such that significant impacts from spillage or leakage of oils, fuels or other contaminants used and stored on-site are not anticipated. The development will have a positive operational impact in terms of providing security of electricity supply during periods of low renewable generation.

Mitigation and Monitoring

- Implementation of the Construction and Environmental Management Plan, including measures and controls to prevent leaks and spills, and adherence to best practice guidance.
- Adherence to a site-specific Resource and Waste Management Plan to ensure compliance with legislative requirements, in line with Best Practice guidance.

- Standard construction practise to prevent, contain, or limit adverse effects arising from the presence of contaminated land or materials (if encountered) and compliance with EPA Guidelines in this regard, and adherence to Health and Safety requirements.
- Reuse of materials where practicable and possible, including soil/overburden.
- The measures identified elsewhere in the Environment Report in respect of Water and Land & Soils.
- Connection to existing surface and wastewater networks.
- Adherence to IE license requirements regulated by EPA.

Residual Effects

No significant residual effects on material assets are predicted.

In-Combination effects

Having regard to the scale of development and likely construction and operational demands on utilities and services, significant in-combination effects with adjoining operations are not expected. No significant in-combination operational traffic impacts with the existing power plant are likely.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to material assets would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of material assets.

9.2.9. **Cultural Heritage:**

Baseline Environment

The Designated Development occurs on lands which have been subject to industrial development and human intervention for a considerable period. The existing power station stands on site of Tarbert Island Battery (KE003-001), originally constructed in the 1790's and subject to later modifications. The battery was demolished during the

building of the ESB power plant. There are the remains of another star shaped fort to the southwest of the main generation station site (KE003-001). Tarbert Lighthouse (1834) to the north of the island is a protected structure (RPS-KY-0891lt), while Tarbert House, approx. 1km south of the site, is also a protected structure.

Likely Main Effects

The site of the designated development occurs on a brownfield site which is underlain by made ground. While the development requires excavations and ground disturbance, the Environmental Report concludes that there will be no physical impact to previously unrecorded heritage assets. The submission of the DAU states their broad agreement to these conclusions. No impact on monument Ke003-001, to the southwest, is predicted and no visual impact on the setting of nearby protected structures is likely.

Mitigation and Monitoring

The Environmental Report does not recommend any archaeological mitigation, unless unexpected features are discovered during works, when appropriate actions will be triggered. I note the condition recommended by the DAU in this regard.

Residual Effects

No significant residual effects are considered likely.

In-Combination effects

Having regard to the nature and extent of existing and adjacent development, it is not considered that there is potential for significant in-combination effects on cultural heritage.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to cultural heritage would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of cultural heritage.

9.2.10. **Landscape and Visual Impacts:**

Baseline Environment

The designated development occurs within the existing power generation campus. The existing plant includes buildings of significant scale and two tall stacks of up to 150m and a large-scale tank farm. Tarbert generation station is a prominent feature in long views across the estuary and in views west from the N69 on the approach from Foynes, identified as a scenic route in the Limerick Count Development Plan. The N67 is identified in the Kerry County Development Plan as a Scenic Route, with views to the east / northeast, across Tarbert Bay.

Likely Main Effects

The designated development is proposed on the western side of the existing power generation campus. Proposed structures are relatively low level, except for 3 no. 30m stacks which comprise the most prominent elements. In the context of the existing buildings and facilities, the development will not be prominent nor viewed as an independent element on these lands. While the application does not include elevation drawings, having visited the site and surrounding area and examined the development description, I am satisfied that the proposed temporary development on this site will not have significant impacts on the visual amenities of the area or result in any material change to the landscape character thereof.

Mitigation and Monitoring

- Siting within an existing power generation complex.
- Selection of colour scheme to reduce visual prominence.
- Siting of construction compounds screened by existing buildings.
- Perimeter screening during construction, and lighting design.

Residual Effects

No significant residual effects on the landscape and visual amenities of the area from this temporary development is likely.

In-Combination effects

The development will be seen in the context of the existing power generation uses on the site; however, no significant in-combination effects are anticipated.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to landscape and visual amenity would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of landscape and visual amenity.

12.12 Traffic Management

Baseline Environment

Access for construction traffic will be available via two existing entrances from the N67, to the east and southeast, and over the existing internal roadways. The N67 provides access to the Killimer-Tarbert Ferry from Tarbert Main Street where it connects with the N69, approx. 2km south of the site. The N69 provide access south to Listowel and east to Foynes and Limerick. Both the N67 and N69 are of good quality and capacity.

Likely Main Effects

Estimated daily peak traffic volumes during construction comprise worst-case 50 one way / 100 two-way LGV movements and 93 one-way / 186 two-way HGV movements, over a six-week peak period. When movements associated with Cut & Fill operations are complete, HGV movements are predicted to reduce to approx. 26 no. two-way movements per day.

There is a predicted worst-case increase of 11% in flows on the N69, marginally beyond the commonly accepted threshold for significant effects (10%). The effect on the N67 will be greater due to the lower existing volumes of traffic thereon, however, the quality and capacity of these routes to accommodate these temporary additional peak volumes is considered to be satisfactory. The main constraint occurs at Tarbert Main Street and it is considered reasonable that the Construction Traffic Management Plan be agreed with the Road Authority, having regard to such constraints. I note the conditions attaching to the previous permission on these lands under ABP ref. PA0017, however, the construction traffic volumes arising in that case

were significantly greater than those predicted in this case. Having regard volumes and limited duration of peak construction activity in this case, I consider that the impacts arising can be adequately managed by the Construction Traffic Management Plan, which should be agreed with the Roads Authority.

While queuing of ferry traffic along the N67 on the approach to the pier does arise during peak season, the availability of the southeastern site access provides the opportunity to avoid interaction with such ferry traffic / queuing traffic. A number of abnormal load deliveries will also be required, which will be most likely transported from Foynes along the N69. Such deliveries can be suitably scheduled to avoid peak hours of ferry traffic, as part of the relevant licence / permit process. I note the submission of TII and the requirement in this regard. Having regard to the nature of the development no significant operational traffic volumes are anticipated.

Mitigation and Monitoring:

- Implementation of the CEMP and Construction Traffic Management Plan, which should be agreed with the Road Authority.
- Adherence to noise mitigation measure regarding the scheduling and routing of night-time construction traffic.
- Use of mobile road sweeper on public roads and construction site access.
- Condition surveys of the proposed haul routes and rectification of any damage arising from its use associated with the proposed development.

Residual Effects

There will be negative effects on the public road network serving the site during the peak construction phases, however, having regard to the relatively short duration of this period and the potential to mitigate and manage such effects, they are not regarded as unacceptable.

In-Combination Effects;

There is potential for in-combination traffic effects where construction activity was to occur concurrent with other permitted or proposed projects in the area. Having regard to the proposed timetable for this project and subject to the finalisation of a construction traffic management plan, such impacts can be managed satisfactorily such that significant negative in-combination impacts can be avoided.

Conclusion

I have considered all of the application documentation and submissions received, and I am satisfied that impacts in relation to Traffic Management would be satisfactorily avoided, managed and mitigated by the measures which form part of the proposed scheme and by appropriate conditions. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of Traffic Management.

9.2.11. **Major Accident and Disasters**

Both Tarbert Generation Station and the adjacent NORA storage facility constitute Upper Tier establishments under the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 (S.I. 209 of 2015), by reason of the volumes of dangerous substances stored on those sites and are regulated by the HSA.

The Designated Development provides for the storage of 2,660+ tonnes of distillate fuel, which volumes would exceed the threshold for a lower tier establishment as defined in Schedule 1 Part 2 of the Regulations. The development would constitute a modification to an existing upper tier COMAH establishment, to which the requirements of Regulation 12 of the COMAH regulations apply. As noted by the HSA, the operator of the establishment is otherwise required to continue to adhere to all requirements of the regulations in this regard. The Environmental Report recognises the existing COMAH status of the site, which will not alter, and states that the applicants are aware of the actions required to comply with their legislative requirements.

This assessment has been undertaken in accordance with article 8(2) of the 2022 regulations, on the basis of the information contained in the application lodged on 17/02/2023 and assumes that no changes to the design and layout are required to meet obligations under the 2015 regulations. Having regard to the location of the site and subject to compliance with the regulatory requirements, it is considered that risks arising at the development site will continue to be satisfactorily managed. I note that this falls under a separate regulatory process and that the application of conditions in respect thereof is not considered appropriate.

The vulnerability of the development to the effects of Climate Change have been considered in respect of coastal flooding above. Subject to the mitigation measures identified, including a new flood defence wall, no significant residual risk is identified.

9.2.12. **Interactions**

A summary of the key potential interactions are as follows:

- **Air Quality and Population and Human Health**: Potential for dust impacts from construction activity and operational emissions to impact on air quality.
- **Air Quality and Biodiversity**: Potential for dust from construction activity and operational air emissions to impact on sensitive SAC and SPA habitats.
- **Climate and Air Quality and Population & Human Health**: Potential for the release of GHG emissions to contribute to climate impacts.
- **Noise and Population and Human Health**: Potential for nuisance and disturbance from construction and operational activities and additional traffic.
- **Noise and Biodiversity**: Potential disturbance effects on species of the adjoining SAC and SPA habitats, particularly during construction activities.
- **Biodiversity and Water**: Potential for release of sediments or other contaminants to water bodies, potentially impacting sensitive SAC and SPA habitats and species.
- **Biodiversity and Climate**: Release of GHG emissions may contribute to climate change impacts on biodiversity.
- **Population and Human Health and Water**: Potential for release of sediments or other contaminants to water bodies and impact water quality.
- **Population and Human Health and Landscape & Visual**: Potential for impacts on landscape and visual amenity.
- **Population and Human Health and Traffic and Transport**: Potential nuisance and disturbance due to construction traffic noise and vehicle and for plant emissions to impact on air quality.

- **Population and Human Health and Material Assets (Waste Management)**: Potential nuisance, health or visual amenity impacts from inadequate waste management.
- **Water and Land, Soils and Geology**: Potential for contaminated surface water run-off to potential to enter soil and groundwater.
- **Land, Soils and Geology, and Air Quality**: Construction and excavation activities have the potential to give rise to dust emissions.

9.3. Conclusion on the Likely Main Effects on the Environment

Having regard to the environmental information contained in the application, including the Environmental Report and the submissions received, it is considered that the likely main effects of the designated development on the environment are as follows.

- The development would give rise to an slight increase in a airborne emissions with resulting air quality impacts during the operational phase. Modelling indicates that the impact on human and ecological receptors in the receiving environment would not be significant. Having regard to the scale and limited deployment of the plant and the modelling undertaken which demonstrates the designated development's ability to adhere to the air pollution limits set out in the Air Quality Standard Regulations (SI 180 of 2011), it is not considered that impacts in relation to any air borne emissions would be significant.
- Noise emissions during construction have the potential to give rise to adverse effects on adjoining sensitive residential and ecological receptors, in particular wintering birds. Having regard to the temporary duration of such activity and the identified mitigation measures, including in particular the proposed acoustic barriers around the site perimeter and the timing of certain activities, significant adverse effects are not considered likely. Such screening would also address potential visual disturbance effects on species of conservation interest in the adjacent habitats. Subject to the achievement of the specified operational noise levels, significant impacts on residential amenity or on ecological receptors are not considered likely.

- Peak construction traffic movements have the potential to impact on adjoining residential amenity during night-time hours. Having regard to the limited duration of such activity and subject to restrictions on the routing and volume of HGV movements during such periods, adverse impacts on residential amenity are not considered likely.
- Specific noise disturbance effects on Annex II species of the adjoining cSAC, in particular, bottlenose dolphin is not considered likely to be significant having regard to the on-shore nature of the proposed works and subject to the identified mitigation measures, including in particular adherence to Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (DAHG 2014).
- The designated development would give rise to an increase in operational greenhouse gas emissions with resulting impacts on the achievement of EU and National climate change and carbon emission reduction targets, however the impact on the environment would not be significant in the long-term having regard to the scale and the temporary and emergency nature of the facility, which would only operate intermittently, as and when needed, and for no more than 500 hours per year.
- The development could give rise to impacts on surface and groundwaters as a result of run-off of sediments, accidental spillages of chemicals, hydrocarbons or other contaminants entering waterbodies during construction and operational phases. These impacts would be adequately mitigated by the implementation of standard, best practise guidance and measures, including measures for the control of polluting materials and the management of surface waters and adherence to IE licence requirements. Subject to such measures, significant residual effects on the environment are not considered likely.
- The Designated Development comprises a highly vulnerable use and the subject lands are at risk of flooding. Having regard to the history of uses on these lands and subject to the provision of flood defences around the site, the development can be regarded as acceptable in principle. In this regard, conditions with regard to the level of flood protection to be achieved are considered to be appropriate.

In conclusion, having regard to the identified likely main effects, I am satisfied that the designated development would not have any unacceptable direct or indirect impacts on the environment, subject to implementation of the identified mitigation measures.

10.0 Appropriate Assessment

10.1. Introduction

10.1.1. This section details the appropriate assessment of the Designated Development, comprising an assessment of all aspects that could affect the conservation objectives of European sites and presents precise and definitive conclusions as to the implications for the overall integrity of those sites. The Designated Development comprises an emergency plant for the generation of electricity, located within the site of the existing Tarbert Generation Station on Tarbert Island and a detailed description of the development is set out in section 4.0 of this report above.

A consultant ecologist was engaged to assist the Board in performing its functions under the 2022 Act, and I refer to the memorandum from Ms. Monica Kane, Independent Ecologist and Environmental Consultant, received by the Board on 25/03/2023, in this regard.

10.1.2. Documentation

The application was accompanied by an AA screening statement and a Natura Impact Statement (February 2023), as well as an Environmental Report and various supporting studies and assessments. It is considered that these documents were prepared by suitably qualified and experienced professionals.

The NIS identifies and scientifically assesses possible adverse effects of the proposed development, alone and in combination with other plans and projects on European sites in view of their conservation objectives and identifies mitigation measures designed to avoid and/or reduce adverse effects.

Supporting documents / appendices to the NIS include:

a) Information on European sites within the ZoI of the Designated Development.

b) A Framework Construction Environmental Management Plan.

c) Details of Projects Assessed for In-Combination Effects.

d) An Air Quality Modelling Assessment.

e) Predicted Construction Noise Levels of the Temporary Emergency Generator.

10.1.3. Observations

A number of submissions and observations on the application have been received. I note in particular the submission received from the Development Applications Unit (DAU) in relation to nature conservation.

10.1.4. Legislative Context

In accordance with s.6(1) of the Development (Emergency Electricity Generation) Act 2022, the Board is to undertake an appropriate assessment of the designated development in accordance with Part 5 of the European Communities (Birds and Natural Habitats) Regulations 2011.

Article 42(6) of the 2011 regulations states that a public authority shall determine that an Appropriate Assessment of a plan or project is required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site. In accordance with article 42(16) of the 2011 regs and Article 6(3) of the Habitats Directive the competent authority shall give consent for a plan or project only after having determined that the plan or project shall not adversely affect the integrity of a European site.

10.2. **Stage I - Screening the Need for Appropriate Assessment:**

10.2.1. The screening stage aims to establish if the proposed development is likely to result in significant effects on a European site. If the possibility of significant effects cannot be excluded on the basis of objective information, without extensive investigation or the application of mitigation, a plan or project should be considered to have a likely significant effect, and Appropriate Assessment carried out.

On 23/02/2023, having reviewed the submitted Appropriate Assessment Screening Report and supporting documentation, and the report of the appointed Inspector, the Board determined under article (42)(1) that the designated development, individually or in-combination with other plans or projects, would be likely to have a significant effect on the following European Sites, in view of the sites' conservation objectives:

- River Shannon and River Fergus Estuaries SPA (site code 004077),
- Lower River Shannon cSAC (site code 002165),
- Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (site code 004161),
- Moanveanlagh Bog cSAC (site code 002351).

The Conservation Objectives for these sites are summarised below and detailed information is available at the relevant NPWS webpage identified.

The potential for significant effects on the conservation objectives of other European sites within and outside of the zone of influence was screened out because of the separation distances and the lack of substantive ecological linkages or pathways between the proposed works and such other European sites.

River Shannon and River Fergus Estuaries SPA (https://www.npws.ie/protected-sites/spa/004077)	
Interest	Conservation Objective
A017 Cormorant	Maintain the favourable conservation condition
A052 Teal	
A054 Pintail	
A062 Scaup	
A050 Wigeon	
A056 Shoveler	
A048 Shelduck	
A137 Ringed Plover	
A140 Golden Plover	
A141 Grey Plover	
A149 Dunlin	
A156 Black-tailed Godwit	
A157 Bar-tailed Godwit	

A160 Curlew	
A162 Redshank	
A164 Greenshank	
A142 Lapwing	
A046 Light-bellied Brent Goose	
A038 Whooper Swan	
A179 Black-headed Gull	
Habitat	
Wetland and Waterbirds	To maintain the favourable conservation condition of the wetland habitat as a resource for the regularly-occurring migratory waterbirds.

Lower River Shannon cSAC (https://www.npws.ie/protected-sites/sac/002165)	
Interest	Conservation Objective
1029 Freshwater Pearl Mussel	Restore the favourable conservation condition
1095 Sea Lamprey	Restore the favourable conservation condition
1096 Brook Lamprey	Maintain the favourable conservation condition
1099 River Lamprey	Maintain the favourable conservation condition
1106 Atlantic Salmon (fresh water)	Restore the favourable conservation condition
1110 Sandbanks slightly covered by seawater all the time	Maintain the favourable conservation condition
1130 Estuaries	Maintain the favourable conservation condition
1140 Mudflats and sandflats not covered by seawater at low tide	Maintain the favourable conservation condition
1170 Reefs	Maintain the favourable conservation condition
1150 *Coastal lagoons	Restore the favourable conservation condition
1160 Large shallow inlets and bays	Maintain the favourable conservation condition
1220 Perennial vegetation of stony banks	Maintain the favourable conservation condition
1230 Vegetated sea cliffs of Atlantic and Baltic coasts	Maintain the favourable conservation condition
1310 Salicornia and annuals colonising mud & sand	Maintain the favourable conservation condition
1330 Atlantic salt meadows	Restore the favourable conservation condition
1410 Mediterranean salt meadows	Restore the favourable conservation condition

3260 Water courses of plain to montane levels	Maintain the favourable conservation condition
6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soil	Maintain the favourable conservation condition
91E0 *Alluvial forests	Maintain the favourable conservation condition
1349 Bottlenose Dolphin	Maintain the favourable conservation condition
1355 Otter	Restore the favourable conservation condition

Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (https://www.npws.ie/protected-sites/spa/004161)	
Interest	Conservation Objective
A082 Hen Harrier	Maintain or restore the favourable conservation condition.

Moanveanlagh Bog SAC (https://www.npws.ie/protected-sites/sac/002351)	
Interest	Conservation Objective
7110 Active raised bogs	To restore the favourable conservation condition
7120 Degraded raised bogs still capable of natural regeneration	Long-term aim is to re-establish peat-forming capability; therefore, the objective is inherently linked to that of Active raised bogs
7150 Depressions on peat substrates of Rhynchosporion	A separate conservation objective has not been set

10.2.2. Impact Mechanisms

The development does not involve any direct loss or impact on habitats, which are qualifying interests of any European site. The submitted AA Screening Statement identifies the following impact sources / mechanisms for potential significant effects on the conservation objectives of the European Sites.

European Site	Impact Mechanism
River Shannon and River Fergus Estuaries SPA	Loss of functionally-linked habitat (construction and decommissioning).

	Waterborne pollution of habitat supporting the SCI species (construction, operation and decommissioning). Airborne pollution of habitat supporting the SCI species (construction, operation and decommissioning). Changes to groundwater flows or volume (construction phase). Disturbance of SCI species (construction, operation and decommissioning). Spread of invasive non-native species (construction and decommissioning)
Lower River Shannon cSAC (site code 002165),	Waterborne pollution of QI habitat and/or habitat supporting the QI species (construction, operation and decommissioning). Airborne pollution of QI habitat and/or habitat supporting the QI species (construction, operation and decommissioning). Changes to groundwater flows or volume (construction and decommissioning). Disturbance of QI species (construction, operation and decommissioning). Barriers to or displacement of QI or supporting species (construction and decommissioning). Injury or mortality of QI (construction and decommissioning). Spread of invasive non-native species (construction and decommissioning)
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	Airborne pollution of habitat supporting the SCI species (operation).
Moanveanlagh Bog cSAC	Airborne pollution of QI habitats (operation)

I regard the identified impact mechanisms as comprehensive and representative of the potential effects of the proposed development on Natura Sites within the zone of influence of the development and provide a satisfactory basis for assessment thereof.

10.2.3. **Natura Impact Statement**

The NIS accompanying the application examines and assesses potential adverse effects on the Conservation features of the European Sites.

The NIS indicates that it was informed by the following studies, surveys and consultations:

- Desk top studies.
- Habitat Surveys.
- Bird Surveys
- Otter Surveys.
- Dispersion modelling to predict the effect of emissions of airborne pollutants.
- Noise modelling in respect of construction / decommissioning and operational activities.

The NIS concludes that with the implementation of identified mitigation measures, and on the basis of the assessment described therein, including air pollution dispersion modelling and noise modelling, no significant effects on any European site are predicted, including in-combination impacts arising with other plans or projects. It therefore concludes that the Designated Development will have no adverse effect on the integrity of any European site, either alone or in-combination with other plans or projects.

I have reviewed the AA Screening Statement, the NIS, and supporting documentation and the submissions received on the case. These documents provide adequate information in respect of the baseline conditions and the identification of potential adverse impacts. Details of mitigation measures set out in Section 4 of the NIS comprise embedded, general and site-specific measures.

I am satisfied that sufficient information is available to the Board to allow for a complete assessment of the designated development in view of the requirements of

appropriate assessment, and precise and definitive findings can be reached with regard to the implications of the project on European Sites.

10.3. Appropriate Assessment of the implications of the proposed development on each European site

10.3.1. Basis for Assessment

The following is an objective assessment of the implications of the project on the relevant conservation objectives of the European sites, based on the best available knowledge. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are examined and assessed. I have had regard to the following guidance:

- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service. (2009).
- Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC (2002)
- Guidelines on the implementation of the Birds and Habitats Directives in Estuaries and coastal zones EC (2011)
- Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC (2018).

A description of the relevant European sites and their Conservation Objectives and Qualifying Interests, including relevant attributes and targets, are set out in Appendix A of the NIS and are summarised above. I have also examined the relevant Natura 2000 data forms and Conservation Objectives Supporting Documents for these sites available through the NPWS and European websites (www.npws.ie and https://natura2000.eea.europa.eu).

The main mechanisms by which the development could adversely affect the conservation objectives of European sites are identified above. I consider that these reasonably and comprehensively describe the potential impacts on European Sites arising from the designated development.

10.3.2. **Receiving Environment**

River Shannon and River Fergus SPA: This extensive site is internationally important site for waterbirds and migratory species. The site also supports a nationally important breeding population of Cormorant. Wetland habitat is also of conservation interest as it supports wintering migratory waterbirds. The Designated Development will not encroach upon or have any direct impact on habitats within the SPA. There is potential for ex-situ impacts in the event of loss of habitats used by the qualifying species of the SPA.

The application includes the results of wintering bird surveys carried out in November 2022 – Jan 2023. These surveys recorded no SCI species within the Designated Development site. SCI species were recorded foraging or roosting within the creek / lagoon to the south of the site and in the estuary to the west and north of the site. A higher concentration of SCI species was recorded in Tarbert Bay to the east of Tarbert Island.

In order to address deficits in data regarding the waterbird usage of the area, supplementary baseline information was obtained to facilitate assessment of potentially significant disturbance impacts. In this regard I have had regard to the most recent and detailed survey of waterbird numbers, usage and distribution over the entire Shannon Estuary, which was carried out in 2017/2018 on behalf of Clare County Council under the auspices of the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary (MKO 2019)[3]. This study recorded highest overall waterbird numbers in mid-winter (November-February). 87 no. subsites were surveyed, including sub-site 0N011 to the north, west and south of Tarbert Island, which is the closest sub-site to the designated development. Across all of the subsites surveyed, the mean species richness and total waterbird numbers per count were amongst the lowest in this subsite. Areas of higher species richness were recorded in Tarbert Bay to the east and southeast. In respect of subsite 0N011, the MKO study does not identify the site as being of importance for any bird species.

[3] MKO, (2019). Waterfowl numbers, usage and distribution on the River Shannon and River Fergus Estuaries - Final Survey Report. 170160 – F – Final Survey Report – 2019.01.30. 170160 – F –Final Survey Report – 2019.01.30.

Three records of ringed plover are noted in a mainland terrestrial area, southwest of NORA storage facility in May 2017.

Subsite 0I425 covers Cooks Point and part of Tarbert Bay, east and northeast of Tarbert Island. This sub-site is identified as being of importance for species, including Black-tailed Godwit, Shelduck, Wigeon, Teal, Redshank, Black-headed gull.

Lower River Shannon cSAC:

Marine / Coastal Annex I habitats: The development will have no direct impact on Annex I Marine / Coastal habitats for which the site is designated. The lagoon to the south of the designated development site is not located within the SAC. Habitats recorded on the Designated Development site are typical of those on industrial sites and are generally of low ecological value. No scheduled invasive species were identified on the site.

Annex I habitats adjoining the site comprise Estuaries (1130) and Reefs (1170). Two marine community types are recorded within these habitats, (Subtidal sand to mixed sediment with Nucula nucleus community complex, and Fucoid-dominated intertidal reef community complex). These communities are not rare and occur widely within the estuary and around the coasts of the country. They occur in dynamic environments and are not highly vulnerable to change.

Other Annex I habitats are potentially affected by impacts on water quality, however, the separation distances and the extent and dynamic nature of waters in the estuary are such that any such effects would be limited. There is potential for impacts on certain habitats arising from operational emissions to air and nitrogen deposition.

Annex II Species: The adjoining broad estuary waters are identified as a critical habitat area for Bottlenose Dolphin. There are no spawning sites for Atlantic Salmon at the project area, however, adult fish may pass the site when travelling up the river to spawn or on return to the sea or as smolts on their first migration to the sea. There is potential that Sea Lamprey and River Lamprey may pass in close proximity to the proposed development. Brook lamprey live exclusively in freshwater. Surveys identified no signs of otter on the Designated Development site and no resting sites were identified. The NIS concludes that there are unlikely to be any otter resting sites within at least 150m of the site and no ex-situ impacts are likely.

Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA: The conservation objective for the SPA is to restore the favourable conservation condition of hen harrier. The Designated Development site is at a remove from the SPA and provides no suitable ex-situ nesting or foraging habitat for hen harrier. Air emissions could impact on habitats supporting hen harrier, with potential indirect impacts on the conservation objectives of the SAC

Moanveanlagh Bog cSAC: The SAC is located at a remove from the Designated Development and no direct impacts on habitats for which it is designated are likely. Air emissions comprise a potential indirect impact on the conservation objectives of the SAC.

10.3.3. **Impact Prediction**

The identified impact sources / mechanisms and the potential for adverse effects on the integrity of the relevant European Sites are considered in the table below:

Impact Mechanism 1: Loss of functionally linked habitat during the Construction Phase
There are no records of SCI of the SPA or qualifying interests of the SAC occurring within the designated development site. Terrestrial habitats which will be lost as a result of the development are not suitable for foraging by birds or Annex II species, or for breeding Cormorant, and there is no evidence that it is of importance as an ex-situ site. The NIS does acknowledge that some limited roosting activity could possibly occur on the site, however, the area of habitats lost will be very small relative to the wider SPA. Furthermore, the numbers of birds potentially displaced would be extremely small and are not significant at the population level. Any loss and displacement effect would not have any adverse effects on the conservation objectives of these species. There will be no loss of habitat used / suitable for use by otter.

Conclusion:	Having regard to the nature of the lost habitat as a result of the development, there will be no adverse effects on the integrity of European Sites in view of their Conservation Objectives, from the loss of functionally-linked habitat.

Impact Mechanism no. 2: Waterborne Pollution during the Construction, Operational and Decommissioning Phases

Construction

Construction activity has the potential to result in the release / run-off of sediment to waterbodies. While the generation of significant sediment volumes is not considered likely, any effect arising in terms of increased turbidity or localised sediment deposition will be short-term and having regard to the extent and naturally turbid nature of waters in the estuary and potential for dispersion by local currents, significant effects for local benthic habitats and associated marine community types, and aquatic fauna are not likely. In this regard, I note guidance from the OSPAR Commission (2008, 2009) which notes that benthic fauna can survive rapid sediment deposition up to depths of 100mm and that negative impacts to marine life are only expected when sediment deposition depths exceed 150 mm. It is not expected therefore that the proposed development would have negative impacts on marine life in this regard.

Accidental release or spillage of chemical pollutants or other contaminants during construction or operational stages could potentially contaminate seabed sediments or habitats supporting qualifying interests, and if significant in quantity, result in fish / invertebrate kills. There is also potential for spillages or discharges of contaminants to reach ground water.

The application identifies a range of standard, best practise construction mitigation and monitoring measures, in accordance with published guidance (including CIRIA and IFI guidance). These are described in section 4 of the NIS and in the Environmental Report and Framework CEMP. Subject to such measures, I am satisfied that the uncontrolled release of sediment or other pollutants during

construction is unlikely and that there will be no adverse effects on the European sites.

Groundwater monitoring in 2021 as part of existing IE licence requirements concluded that there is no significant evidence of site-derived pollution. The Environment Report indicates that a piling risk assessment is to be prepared in advance of any piling works to prevent risk of a pathway for groundwater pollution and all works are to be carried out in accordance with EPA "Guidance on the Management of Contaminated Land and Groundwater at EPA Licenced Sites". In this context significant impacts arising from mobilisation of existing contaminants are not likely

I conclude therefore that any potential deterioration of the water quality in the estuary as a result of construction activities is not likely to result in any adverse impacts on the habitats or species which are qualifying interests of Natura sites.

Operations

The application states that operational storm water will connect to the existing surface water drainage network and that all flows from the site will pass through oil interceptors prior to discharge. Notwithstanding the description of development in the Environmental Report, there is a lack of detailed design information in relation to surface water drainage.

The discharge of contaminated waters to the estuary due to operational spills or leakages could impact on water quality and on dependent qualifying habitats and species. Such spills could arise from activities such as discharge of wash-down water, spillage of wastewater effluent, refuelling spillages or spillages of other contaminants. While I note the absence of detailed drawings in this regard, I am of the view that sufficient protocols and mitigation measures can be put in place to ensure that significant water quality impacts do not arise from activities on the site. The Environmental Report and CEMP describes such standard pollution prevention and mitigation measures, including

- Segregated and bunded areas for fuel offloading and storage, transformers and material / chemical storage areas.
- Storage of diesel oil in double wall tanks.

- Discharge via oil interceptors.
- Good and regular housekeeping and adequate spill kits stored on site.
- Closure of drainage systems in accordance with the requirements of the IE Licence and COMAH.

The EPA document IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities (2013), provides detailed guidance on the design, construction, operation, maintenance and monitoring of tanks (including drums and containers), bunds and pipelines which store or transmit potentially polluting substances including fuels. Adherence to such guidance and standards would provide the necessary confidence with regard to effectiveness of these measures.

Subject to implementation of the identified mitigation measures and achievement of the specified design standards, it can be concluded that the designated development will not give rise to adverse effects on the integrity of European Sites. I note also that the development will be subject to an operational IE licence which will include monitoring of discharges to ensure the on-going effectiveness of the implemented measures. Having regard to the licenced nature of discharges, I do not regard it as necessary or appropriate to apply a condition requiring compliance with regulations in respect of water quality.

The site is identified as being at risk of flooding in the mid-range future scenario, which event could result in the mobilisation of contaminants. The completion of a flood defence wall to obviate the risk of inundation, combined with the identified measures for the control and management of contaminants, would satisfactorily address potential impacts in this regard.

There is also potential for significant events to give rise to impacts on water quality, such as a release of contaminated firewater, notwithstanding the likelihood of such occurrence and the significant assimilative capacity of the estuary. In this regard, I note that the development includes the provision of a raw and fire water storage tank on the site (2500m^3).

The risk arising from the release or discharge of contaminated firewater is not unique, however, and arises in respect of all such facilities and is well understood. The mitigation of such risk is the provision of adequate firewater retention in accordance with industry standards and best practise guidance. The EPA has

published detailed *Guidance on Retention Requirements for Firewater Run-off* (2019). This document is written primarily for sites licenced by the EPA and regulated under the EPA Act, 1992 (as amended), and sets out clear guidance on requirements in relation to firewater retention capacity and design, including detailed requirements in relation to the design of retention ponds, tanks, bunding and drainage systems etc. In the context of this development, this guidance should also be read with the EPA document *IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities*, referenced above.

This Appropriate Assessment has identified an impact which could materially affect the qualifying interests of the Lower Shannon Estuary SAC and River Shannon and River Fergus SPA that was not identified in the NIS. In respect of the potential impacts arising from the management of contaminated firewater, implementation of the detailed design guidance set out in the referenced EPA documents would provide adequate and satisfactory mitigation in respect of this impact. This would be in accordance with the guidance of the Commission (2018) that mitigation measures 'must be directly linked to the likely impacts that have been identified in the appropriate assessment'.

Notwithstanding the absence of specific design details in relation to firewater retention design at this time, I am of the view that subject to the application of such design standards, any residual risk arising in relation to contaminated firewater would not be significant and the Board may reach a conclusion that the development will not give rise to adverse effects on the integrity of the European Sites.

It is relevant that the facility will be subject to Industrial Emissions licencing requirements, and requirements under the 2015 COMAH Regulations. The EPA (Industrial Emissions) (Licensing) Regulations 2013 and the EU (Industrial Emissions) Regulations 2013 set out rules on integrated prevention and control of pollution arising from licenced activities. All IED licences must comply with Best Available Techniques (BAT) and the EPA is prohibited from granting a licence unless it is satisfied that emissions will not cause significant environmental pollution and that necessary measures will be taken to prevent, limit, and remediate the consequences of incidents and accidents. I note the submission of

the EPA in this regard. The existing Generating Station at Tarbert is already subject to an EPA licence, which includes the following condition:

9.2 *Firewater Retention.*

9.2.1 In the event of a fire or a spillage to surface water drains, all relevant interceptor isolating valves shall be closed off in order to prevent entry of contaminated matter to the estuary.

Furthermore, the COMAH Regulations 2015 (S.I. No. 209 of 2015), require owners of facilities to take all measures necessary to prevent major accidents, and to limit the consequences for both human health and the environment of such accidents.

Compliance with these additional legislative requirements would provide a safeguard with regard to the satisfactory implementation of the identified mitigation measures and procedures to limit and address any adverse impacts arising from a major incident such as a fire during the operational phase.

Conclusion	Subject to implementation of identified mitigation, there will be no adverse effects on the integrity of the SAC or SPA in view of their Conservation Objectives arising from Waterborne Pollution.

Impact Mechanism no. 3: Airborne Pollution during the Construction, Operational and Decommissioning Phases

The predicted volumes of construction traffic, which are short-term in nature, are not of a level which gives rise to a requirement for air quality modelling or likely to give rise to significant changes in air quality, based on TII criteria. While habitats adjoining the designated development site are not particularly sensitive to dust impacts, standard construction dust mitigation and suppression measures are identified which would ensure that no impact on the conservation objectives of the European sites is likely.

An air dispersion modelling assessment of the project and of cumulative operational emission was undertaken. The assessment considers the contribution of emissions to mean concentrations of NOx, SO2 and Nitrogen Deposition at 15

no. sensitive ecological receptors / habitat types within the relevant European Sites. The assessed emission limit values, or critical load values for these habitats are sourced from in the UK Air Pollution Information System (APIS), which is regarded as a reasonable basis for assessment, and are consistent with the Conservations Objectives Supporting Documents.

The assessment concludes that when considered in isolation, the impacts from the Designated Development on such receptors would be insignificant, i.e. would be less than 1% of the relevant limit value. In terms of N deposition, air dispersion modelling indicates that the Designated Development will have no perceptible impact on any SAC or SPA designated habitat.

When considered with other existing and proposed cumulative sources in the local area, impacts on most ecological receptors / habitats are insignificant. The analysis notes, however, that in respect of N Deposition a number of sensitive locations are constrained by background levels which already exceed the critical values. These receptors include (E2i) Perennial Vegetation of Stony Banks, (E2j) Broadleaved deciduous woodland, (E3) Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA – Bog, (E4) Moanveanlagh Bog SAC Bog.

The cumulative contribution to total concentrations at these receptors ranges from 0.4% to 2.2% of the Environmental Assessment Level (EAL), while the contribution of the designated development to such cumulative effects is negligible. In this regard, it is concluded that no significant impacts from this temporary development on the qualifying interests of the European Sites are likely.

I note also that the modelling undertaken in relation to cumulative emissions includes the operation of Tarbert Power Station (840 hrs per annum), reflecting 5-weeks of potential in-combination operations pending closure at end-2023. This plant has significantly higher emissions than the designated development and following its closure there will be a reduction in cumulative emissions. With regard to modelled emissions from the proposed gas-fired power plant at Shannon LNG, I note that the air dispersion modelling conservatively assumes that this plant runs at full capacity 24/7/365. This project had not received a grant of planning permission at date of writing.

I note also that the Moanveanlagh Bog SAC Conservation Objectives Supporting Document refers to a reported total N deposition rate in the vicinity of 11kg N/ha/yr in 2014. This value is lower than the national background levels modelled by the applicants for this site of 12.1kg, however, this would not result in a material change with regard to the conclusions above in respect of the designated development. I note also the conclusions of the DAU submission on this application in relation to NOx emissions at this site.

Having regard to the results of the air dispersion modelling which are considered to be reasonable, it is concluded that the designated development will not undermine the conservation objectives of the European Sites in respect of habitats for which the sites are designated or which support qualifying interests thereof.

Conclusion	It is concluded that there will be no adverse effects on any European site in view of the sites' conservation objectives, arising from Airborne Pollution.

Impact Mechanism no. 4: Changes to Groundwater Flows or Volume During Construction

The site overlies a locally important bedrock aquifer, moderately productive only on local zones, of moderate vulnerability. Previous investigations encountered shallow groundwater towards the base of fill deposits and within the underlying natural materials. Groundwater within fill was regarded as perched, non-continuous, localised bodies of water, while groundwater in the underlying silts represented the shallowest continuous groundwater aquifer. Ground water elevation is tidally influenced and brackish in nature, while flows across the island are radial, to the estuary and the lagoon to the south.

The application notes that the amount of dewatering likely to be required is unknown and that a Hydrological Risk Assessment will be undertaken to identify impacts. Any such effects will be of short duration, however, and significant impacts on flow or volume are not likely. I note that the habitats of the adjacent SPA and SAC within the zone of influence of the development are not ground water dependent. While piling activities or dewatering of excavations could have

localised impacts on groundwater, having regard to the underlying hydrogeology and the tidal influence on groundwater, no significant impacts are likely. There will therefore be no adverse effects on the conservation objectives of these European sites.	
Conclusion	There will be no adverse effects on the on the integrity of the SPA or SAC in view of the sites' conservation objectives arising from changes to groundwater flow or volume.

Impact Mechanism no. 5(a): Disturbance of Qualifying Species During the Construction, Operational and Decommissioning Phases - River Shannon and River Fergus Estuaries SPA

There is potential for noise and visual disturbance of species of conservation interest around the development site during construction and operational phases. In respect of noise disturbance of birds, the NIS refers to studies and publications from the University of Hull (Cutts et al 2013)[4], "*The Waterbird Disturbance Mitigation Toolkit*", which focuses on construction activity and identifies the following likely disturbance effects:

- high level disturbance effects on birds are likely with continuous noise above 72dB or sudden noise above 60dB;
- moderate level disturbance effects are likely with regular noise of 60 – 72dB or sudden noise of 55 – 60dB; and,
- there is unlikely to be any response by waterbirds to any noises below 55dB.

This is considered to form a reasonable basis for assessment of potential disturbance effects. The toolkit also considers potential visual disturbance effects on waterbirds.

Appendix E of the NIS provides an assessment of construction noise emissions. The results of modelling, set out in section 1.4, indicate that unmitigated construction noise emissions would exceed the 55dB threshold at a number of sensitive receptor locations within the SPA. With the application of mitigation measures, including in particular a perimeter acoustic barrier, modelling indicates

[4] Cutts, N., Hemingway, K. and Spencer, J. (2013). Waterbird Disturbance Mitigation Toolkit. Institute of Estuarine and Coastal Studies, University of Hull

that, with the exception of piling works, the majority of construction activities will generate noise levels below 55dB LAeq at modelled locations. Two piling types are assessed, vibration piling and impact piling.

Noise levels from vibration piling activities could exceed 55dB LAeq at two modelled locations in the southern lagoon, with values of 58bB and max 64dB(LAeq). These noise levels decrease with distance from the site and some habituation to such noise could be expected. For impact piling, noise levels exceed the 55dB LAmax value at 8 no. modelled receptor locations. Levels are predicted to exceed 72dB LAmax at one location and the 60dB LAmax threshold at four modelled locations, where a high level of disturbance effects could potentially occur, based on Cutts et al (2013). Highest levels occur within the southern creek / lagoon.

The applicant's wintering bird survey data records a number of SCI species within the southern lagoon and adjoining estuary shore / waters. The numbers of birds recorded around the development site are not significant, however, having regard to the overall numbers recorded across the SPA in the 2017 / 2018 MKO surveys of the estuary. The low mean species richness and total waterbird numbers recorded in respect of survey sub-site 0N011 in that survey are of note. While some noise disturbance effects from construction activity could arise within sub-site N011, the numbers of birds occurring within the wintering season and potentially subject to such effects is not significant.

While I note peak counts of 5/6 Greenshank on the southern shore of the lagoon, in the applicant's data, sub-sites 0N011 and 0I425 are not identified as being of importance for this species within the MKO study. While greater numbers were recorded in sub-sites in Tarbert Bay (0I426) and Tarbert Point (0H516) neither of these sites were identified as being of national or international importance for Greenshank.

In respect of survey sub-site 0I425, I note that modelling indicates that noise levels at receptor Point F to the east of the lighthouse, would achieve the threshold of 55dB in respect of impact piling, such that no significant noise disturbance effect in this area would be expected. Levels at Point B, east of the N67 would be marginally higher (56dB) but having regard to the recorded numbers of birds in this

location, significant construction disturbance effects are not likely. I note also the separation from the main works area and the intervening topography, buildings and roads (N67) which would satisfactorily mitigate potential acoustic and visual disturbance in this area.

While wintering bird numbers are not significant at this location, I note the applicant's proposed construction schedule set out in section 3.0 of the Environmental Report, and section 2 of the Act of 2022, which refers to the requirement for such development by Winter 2023/2024. In this regard, most construction activity, including groundworks and civil work, will be carried out outside of the peak period for wintering SCI species, further reducing potential effects. Should disturbance of waterbirds occur within this area, any displacement is only likely to be from a very small area within the overall SPA and will affect only very small numbers of birds of conservation interest.

Having regard to the limited spatial extent of noise disturbance impacts and the numbers of birds potentially affected, and subject to the identified mitigation measures, it is concluded that disturbance effects will not be significant at the population level and that there will be no material change to the distribution, nor any impact on the population trends of SCI species. No adverse effects on the site is therefore considered likely. In this regard, I note the conclusion of the DAU in respect of potential disturbance effects.

Notwithstanding this conclusion, it is considered appropriate that along with the mitigation measures described in the Environmental Report and CEMP, the additional mitigation measures identified in Appendix E of the NIS would be implemented to reduce the local disturbance effect of piling noise on the small numbers of birds occurring in the vicinity of the site.

A proposed acoustic / visual barrier is to be erected around the southern, western and northern perimeters of the overall site, (Figure 12 of the NIS) which will enclose all construction activity, including the proposed flood defence wall. This barrier will largely screen or entirely remove sight of construction activities on the site from adjoining coastal and marine habitats. I note, however, that construction traffic and movement along the northern shore of the island to proposed laydown areas could give rise to visual disturbance to birds in inter-tidal areas in sub-site

0I425. In this regard it is considered appropriate that the proposed acoustic / visual screen be further extended eastwards along the northern shore as far as the CW Pumphouse / WTP Building (disused) to avoid any visual disturbance effects.

The NIS notes that visibility to birds flying over the site and dissuasion from using adjacent habitats is expected to be rare, given the presence of the existing power station and the presence of the screening barrier. This conclusion appears reasonable in the context of the recorded bird flight paths. The NIS also notes that Whooper Swan forages in grassland habitats of the type arising to the south of the site, however, no such activity was recorded at this location either in the applicant's surveys or in the 2017/2018 MKO survey. Notwithstanding this, it is considered that visual disturbance would be unlikely given the separation distance arising, intervening vegetation, and proposed screening barrier during construction.

Having regard to the above, it is concluded that disturbance arising from construction activity associated with the designated development will not have any adverse effect on the SPA in view of the site's conservation objectives.

The NIS states that modelling of operational emissions predicts maximum noise levels at the closest point of the SPA of around 55dB. I note that such levels, which would be continuous in nature and which would fall below the 60dB threshold, are likely to result only in a low-level behavioural response, if any, based on the advice in the referenced tookit. I consider that subject to adherence to the identified emission limits and identified mitigation, no adverse effects on the integrity of European Sites are likely in this regard.

Operational activity on the site is likely to be limited and largely screened by plant and buildings. There will be no access to the shoreline from the site and visual disturbance is not likely to undermine the conservation objectives of the SPA. The proposed flood defence wall will provide a physical barrier to human encroachment onto adjoining habitats and shore, without creating a barrier to movement along the shore. No significant in-combination noise or visual disturbance effects are likely to arise or have adverse effects on the integrity of the site.

I note that evening and night-time activity is likely on the site. Increased illumination of habitats can potentially negatively impact on SCI behaviour. Some

positive impacts may also arise for nocturnal foraging by waterbirds and may reduce predation risk to roosting birds. Notwithstanding the limited data regarding night-time bird activity on the adjoining shore, having regard to the restrictions on night time piling activity and measures described in the NIS, including construction and operational lighting design and the provision of the visual barrier, significant disturbance effects are not considered likely. Operational lighting will be designed so that any increase in illumination of habitats within the SPA does not increase by more than 0.2lux. In addition. I consider that such measures would satisfactorily address potential disturbance effects, however, I also consider that restrictions on the colour temperature of LED lighting used on the site be subject to limits.

Conclusion	Subject to implementation of identified mitigation measures, the designated development will not adversely affect the integrity of the SPA in view of the site's Conservation Objectives, in terms of disturbance of qualifying species.

Impact Mechanism 5(b): Disturbance of Qualifying Species During the Construction, Operational and Decommissioning Phases - Lower River Shannon cSAC

The site is bounded to the west and north by the SAC, however, the lagoon to the south does not form part of the European site. Qualifying interests of the SAC which could be subject to disturbance effects from construction and operational activity are Atlantic salmon, sea lamprey, river lamprey, bottlenose dolphin and otter. Impacts on Atlantic salmon could indirectly impact freshwater pearl mussel.

There are no works proposed within the waters of the estuary / habitats of the SAC and the proposed construction activities are similar to other activities that currently occur routinely around the estuary. In terms of noise and vibration, on-shore construction activity has reduced potential for physical or disturbance effects on aquatic species, relative to works occurring within the water column. Diadromous Fish can be sensitive to low frequency noise emissions, with sensitivity varying with species. Bottlenose dolphins have an acknowledged sensitivity to noise and vibration impacts.

The only construction activity with potential to generate sufficient noise or vibration levels to transfer through the ground into the marine environment is piling. Proposed piling activities occur on-shore and may comprise either vibration or impact piling with depths varying across the site between 3m and 30m. Impact piling is predicted to produce a sound pressure level of 128dBA (L_{AMax})at source, however, the application does not model noise levels in adjacent marine waters during such piling activities.

The application notes the lack of conclusive data regarding the impacts of on-shore ground source noise on fish species but makes reference to various studies, and concludes that a level of disturbance from piling activities could arise. Identified mitigation to minimise the generation of noise and vibration includes the seasonal timing and location of piling activities and best practise measures (BPM), including timing of activities and soft-start techniques. In this regard, I note the distances to threshold criteria for fish in respect of pile driving activity identified by Popper et al (2014)[5], which refers to piling activity within the water column. I note also the availability of a large waterbody in the estuary for avoidance of noise effects. While some localised disturbance of salmon and lamprey species could arise, I am satisfied that such impacts would not be significant or undermine the conservation objectives of the SAC in respect of such species.

The adjacent waters of the estuary are identified as a critical habitat area for bottlenose dolphin. Notwithstanding its on-shore nature, proposed piling activity has the potential to impact on bottlenose dolphin in the estuary. The 2014 DAHG Guidance document *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters*, notes that the further inland from the coast a sound-producing activity occurs, the less likely it is to expose marine mammals to anthropogenic sound at a level sufficient to cause behavioural disturbance or physical harm.

I note that water column noise attenuation tests were previously carried out in 2012 in respect of on-shore piling activity for Moneypoint Wind Farm (Biospheric

[5] Popper, A.N., A.D. Hawkins, R.R. Fay, D.A. Mann, S, Bartol, T.J. Carlson, S. Coombs, W.T. Ellison, R.L. Gentry, M.B. Halvorsen, S. Løkkeborg, P.H. Rogers, B.L. Southall, D.G. Zeddies, and W.N. Tavolga. 2014. Sound exposure guidelines for fishes and sea turtles. A technical report prepared by ANSI-Accredited Standards Committee S3/SC1 and registered with ANSI. Springer Briefs in Oceanography. ASA Press—ASA S3/SC1.4 TR-2014.

Engineering 2012) under PA ref, 12/74, ABP ref. PL03.241624. This was subsequently referenced again under PA ref. 203/18. That study indicated that for piling near the shore, low frequency pulses generated by pile installation are significantly attenuated prior to coupling with the water column. It concluded that due to such attenuation, physical damage criteria to marine mammals were not exceeded at any distance. Potential disturbance effects on bottlenose dolphins could arise, however, but were localised and in the absence of mitigation, could be considered an adverse effect. Mitigation in that case included the use of Marine Mammal Observers around the shore.

I note the provisions of the 2014 DAHG Guidance, including those relating to the determination of exposure thresholds. Having regard to the predicted source emission level and the results of the previous studies referenced above, physical impacts on bottlenose dolphins in the estuary are not considered likely. Localised disturbance effects could arise, however, and in this regard I note the mitigation measures identified in the NIS including the adoption of Best Practicable Means (BPM) methods for piling, including soft-start techniques. These measures are generally reflective of those set out in the 2014 Guidance, but do not include the use of Marine Mammal Observers (MMO).

The submission from the DAU doesn't disagree with the conclusions regarding the absence of adverse effects but recommends underwater noise monitoring before, during, and after, piling sessions within 20m of the Shannon Estuary. There are no identified actions associated with such monitoring, which does not constitute a mitigation measure, nor does there appear to be a clear basis for the application of a 20m exclusion.

Having regard to the available information before me, I am unable to exclude potential disturbance effects of impact piling activity on Bottlenose Dolphin. The appropriate mitigation of such effects would be the application of the 2014 DAHG guidelines, as the official guidelines and code of practice under art. 71 of the 2011 regulations. Subject to such measures, to include the utilisation of Marine Mammal Observers, I conclude that the development would not undermine the conservation objectives of the SAC or have an adverse effect thereon.

No resting sites for otter were found on or within 150m of the Designated Development site, although there are suitable habitats area for foraging and commuting within the wider area. Otter are generally nocturnal and are not sensitive to underwater noise. Piling works are not to take place at night and disturbance along the shore will be significantly reduced by the perimeter visual and acoustic barriers. Mitigation set out in the CEMP includes pre-development site surveys. There is no expectation that otters foraging or commuting within the Estuary or the lagoon will be disturbed by construction noise or vibration emissions. No other effects are predicted having regard to the existing nature of habitats on the site and industrial uses on the wider lands. It is therefore concluded that there will be no adverse effect on the integrity of Lower River Shannon SAC in this regard.

Increased lighting can give rise to effects on fish species. The site does not directly bound the shore of the SAC and I note that the existing terminal jetty and internal roads along the shoreline are provided with lighting. During construction, lighting will be designed to obviate spill onto SAC habitats and works within 20m of the shore will not be permitted during hours of darkness. Permanent operational lighting will be designed to limit any increase in illumination of habitats within the SAC and no adverse effects are therefore predicted. Subject to the identified mitigation measures, and additional controls on the colour temperature of LED lighting used on the site, no significant disturbance effects are anticipated.

Conclusion	Having regard to the nature and scale of development and subject to compliance with the mitigation measures identified, there will be no adverse effects on the integrity of the SAC in view of the site's Conservation Objectives, arising from disturbance of qualifying species.

Impact Mechanism 6: Prevention of migratory movements of QI species

There will be no physical barriers to the movement of any qualifying interests of the adjoining SAC or SPA, or new barriers which prevent the movement of otter along the shore. The proposed flood defence wall will not impede movements in this regard. I note restrictions on piling activity during the migratory season for

salmon and lamprey species. Any displacement of fish species will be localised with an extensive area of alternative habitat available within the estuary. Identified mitigation will prevent noise, vibration and light levels within watercourses being sufficient to cause disturbance or obstruct movement and it is concluded that there will be no adverse effect on the integrity of the SAC from the prevention of migratory movements of QI species.	
Conclusion	Subject to implementation of identified mitigation, there will be no adverse effects to the conservation features of the estuary or on the integrity of the site arising from the prevention of migratory movements.
Impact Mechanism 7: Injury or mortality of QI species	
There will be no in-stream / marine works as part of the designated development. Subject to the identified mitigation measures, injury or mortality of qualifying interests due to noise / vibration levels, or artificial illumination increasing predation of species is not considered likely. Noise levels in the SPA or SAC will not be of a level likely to give rise to physical effects on QI species. Standard mitigation measures and adherence to best practise guidance will ensure that the risk of waterborne pollution does not arise. The site does not comprise suitable foraging or roosting habitat for SCI species and the construction site will be bounded by a solid acoustic barrier, such that risk of fauna entry and collision with vehicles or plant is considered to be extremely low. Having regard to the height and scale of existing adjacent development and overhead lines, and to the result of wintering bird surveys, no significant risk of bird collision with plant or structures arises.	
Conclusion	Subject to implementation of identified mitigation, there will be no adverse effects to the adjacent European Sites in view of the sites' conservation objectives arising from potential mortality or injury to any qualifying interest.

Impact Mechanism no. 8: Spread of invasive non-native species	
No non-native invasive species identified on the Third Schedule of the 2011 regulations were recorded on the site. Two low-medium impact non-native species were recorded. The NIS identifies bio-security mitigation measures and concludes that the development will not facilitate the spread of invasive non-native species and that no adverse effects on the integrity of the SAC or SPA will arise. I note that obligations and responsibilities in relation to invasive species are set out in 2011 European Communities (Birds and Natural Habitats) Regulations, and arise irrespective of proximity to any European Site, and are not therefore regarded as a mitigation measure.	
Conclusion	Subject to implementation of identified mitigation, there will be no adverse effects to the conservation objectives of the SAC or SPA or on the integrity of these sites arising from potential spread of non-native invasive species.

10.3.4. **Mitigation**

Section 4 of the NIS describes Embedded, General and Site-Specific mitigation measures in respect of the proposed development, summarised below:

Embedded Mitigation

- No works will occur within any European site.
- The height of emissions stacks was increased to 30m to reduce potential effects on the habitats of European sites.
- Siting of the construction compound on an area of existing hard-standing at the centre of the Power Station Site, and use of existing roads and access routes.
- Use of modular, pre-assembled units where possible to minimise construction duration.

General Mitigation

- Implementation of a Framework Construction Environmental Management Plan (CEMP) to ensure there is no pollution of watercourses, waterbodies or terrestrial habitats, in accordance with best practise guidelines (CIRIA 2001 & 2015, IFI 2016 and EPA 2021). This includes pollution prevention measures in relation to

the control and management of sediment and potentially contaminating substances, siting and management of vehicle refuelling and servicing, dust management and concrete batching.

- Appointment of an Ecological Clerk of Works and Environmental Clerk of Works to monitor and ensure implementation of all mitigation measures and compliance with legislative requirements in relation to ecological features.
- Staff induction and briefing.
- Construction works will take place only within the red line boundary and fencing to prevent encroachment onto adjacent habitats,
- Restrict stockpiling to at least 30m away from any waterbody;
- A pre-works confirmatory otter survey;
- Design and management of excavations and open pipes.
- On-site speed limits
- Biosecurity measures to avoid the spread of invasive non-native plant species.

Specific Mitigation

- Demarcation of European Sites to prevent any encroachment which could cause damage to QI habitats and/or habitats which support QI / SCI species.
- Measures to minimise and suppress dust generation.
- Stack height to improve dispersion of pollutants and reduce impacts on habitats.
- 'Best practice measures' as standard working practice to include the selection, maintenance and use of plant vehicles and machinery to reduce noise emissions.
- Piling activity will not take place within 20m of the water's edge except in September, January or February, to avoid migratory periods for fish.
- Adopt 'soft-start' techniques. The loudest activities (e.g., piling) will not start until at least 1hr after sunrise and will cease not later than 1hr prior to sunset.
- The loudest activities will not be undertaken in extended periods of severe winter weather, in line with published guidance.
- Install an acoustic and visual barrier along the southern, western and northern perimeters of the site during construction and decommissioning.
- Adherence to operational noise limits.
- Works within 20m of the shore will not be permitted during hours of darkness.

- Construction lighting design to prevent light spill onto watercourse or habitats and operational lighting design to avoid direct illumination of the estuary or lagoon and restrict increased illumination to specified levels.

In addition, I note the mitigation measures set out in the Environmental Report and the Framework CEMP. I refer also to the additional site-specific measures identified in this report and recommended by way of conditions under section 12.3 below, to protect the integrity of the European Sites.

10.4. **In Combination Effects:**

A number of other developments and projects were identified at Screening Stage, with the potential to act in-combination with the designated development.

Modelling of operational air quality effects undertaken by the applicants, indicates that the contribution of the Designated Development to overall cumulative emissions will be negligible such that the impact on the cumulative contribution for nitrogen deposition and NOx is not significant. Modelling of cumulative emissions adopts a conservative approach and includes the operation of Tarbert Power Station (840 hrs per annum). This station is due to cease operating at end-2023, however, and would have significantly higher NOx emissions than the designated development, such that overall cumulative emissions will be reduced. The model also provides for a worst-case scenario of the continuous operation of the proposed Shannon LNG power plant. The in-combination effect of the Designated Development with the existing Tarbert power station, Moneypoint power station and Shannon LNG will not have adverse effects on vegetation or habitats of European Sites. In this regard, I note the submission of the DAU in regard to potential effects on Moanveanlagh Bog.

In respect of the other identified projects, having regard to their nature and location, subject to the identified mitigation measures there is no potential for significant in-combination effects on the qualifying interests of the SAC or on SCI birds due to noise or disturbance or due to a loss of functionally linked habitat. I note in particular, the measures to mitigate noise impact during construction in relation to the Shannon LNG project. Similarly, in-combination effects on water quality are not considered likely.

In addition, I note also the Cross Shannon 400 kV Cable Project between Moneypoint and Kilpaddoge, granted permission under ABP-307798-21 and currently seeking a foreshore licence. Where construction was to take place concurrent with the designated development, there is potential for in-combination effects, particularly in terms of Bottlenose Dolphin. Subject to the mitigation measures identified in the approved development and those proposed in this case, however, it is not considered that significant adverse in-combination effects would arise. Concurrent activities with the proposed Prospect -Tarbert 220kvCable upgrade are not considered likely to give rise to significant adverse effects, subject to the identified mitigation measures including the proposed perimeter screening.

10.5. Appropriate Assessment Conclusions

Having carried out screening for appropriate assessment of the project, it was concluded that it would be likely to have a significant effect on the following European Sites:

- Lower River Shannon cSAC (site code 002165),
- River Shannon and River Fergus Estuaries SPA (site code 004077),
- Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (site code 004161), and;
- Moanveanlagh Bog cSAC (site code 002351).

Consequently, an appropriate assessment was undertaken of the implications of the project on the qualifying features of those sites in light of their conservation objectives. Following such assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of those European Sites in view of their Conservation Objectives. No reasonable scientific doubt remains as to the absence of such effects.

This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including the proposed mitigation measures in relation to the Conservation Objectives of these European Sites.

- No reasonable scientific doubt as to the absence of adverse effects on wetland habitats or on Species of Special Conservation Interest of the River Shannon and River Fergus Estuaries SPA following the application of mitigation measures.
- No reasonable scientific doubt as to the absence of adverse effects on water quality or habitats of the Lower River Shannon cSAC or effects on marine mammals or fish species including Bottlenose Dolphin, Atlantic Salmon, Sea and River lamprey and Otter, their habitats or prey following the application of mitigation measures.
- No reasonable scientific doubt as to the absence of adverse effects on habitats supporting bird species of Special Conservation Interest to Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA.
- No reasonable scientific doubt as to the absence of adverse effects on habitats of Moanveanlagh Bog cSAC (site code 002351).

11.0 Section 6(2) - Strict Protection of Certain Animal and Plant Species under the Habitats Directive

The Habitats Directive is transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations, 2011-2021. Requirements in relation to Strict Protection are set out in:

- Regulation 51 – Annex IV animals
- Regulation 52 – Annex IV plants, and
- Regulation 54 – derogation licences including Regulation 54 A when the Minister is applying for a derogation

In considering the requirements of s.6(2) of the Act of 2022, I have had regard to the *Guidance on the Strict Protection of Certain Animal and Plant Species under the Habitats Directive in Ireland*, National Parks and Wildlife Service Guidance Series[6], published by the Department of Housing, Local Government and Heritage (2021).

[6] https://www.npws.ie/sites/default/files/files/strict-protection-of-certain-animal-and-plant-species.pdf, https://www.npws.ie/sites/default/files/files/article-12-guidance-final.pdf.

The guidance notes that the following Annex IV species occur in Ireland:

Animals	**Plants**
All bat species	Slender Naiad
Otter	Killarney Fern
Natterjack Toad	Marsh Saxifrage
Kerry Slug	
Dolphins, Whales and Porpoises	
Marine Turtle	

The need for a derogation licence with regard to animals, arises in respect of the carrying out of any work which has the potential to capture or kill any specimen of a Strictly Protected species, or to disturb these species, or to take or destroy eggs of such a species, or any action resulting in damage to, or destruction of, a breeding or resting place of an animal.

In respect of plants, the need arises in relation to the deliberate picking, collection, cutting, uprooting or destruction of any specimen of these species in the wild, or the keeping, transport, sale, exchange, offer for sale or offer for exchange any specimen of these species taken in the wild.

Stage 1: Annex IV Plant and Animal Species present on the site or within the zone of influence of the development.

I have reviewed the survey data accompanying the application and the records of the National Biodiversity Data Centre. Surveys of the site did not identify any Annex IV plant species within or adjoining the site, or within the zone of influence of the designated development. The following Annex IV animal species are noted to occur, or potentially occur, on or within the zone of influence of the designated development.

- Bottlenose Dolphins
- Otter
- Bat species

Stage 2: Surveys indicate that the following are present

Otter and Bottlenose Dolphins are qualifying interests of the Lower Shannon Estuary cSAC. Bottlenose Dolphin have been observed off the shore of Tarbert Island. Otter occur along the shores of the wider estuary area. Surveys of the site and surrounding area did not record any signs of otter or any resting sites used thereby, nor were any areas suitable for use as resting sites for otter identified. The results of the surveys are supported by the results of previous surveys undertaken in respect of a 2018 planning application on these lands.

The site comprises part of an existing industrial complex and will not require the removal of any existing structures. Surveys of the development site did not record any potential roosting sites for bats and only limited foraging potential within the lands. This reflects the 2018 assessment of the suitability of the site for bats as low. I conclude that the designated development will not impact on any breeding site or resting place for bats.

Stage 3: Examination of Impacts and Satisfactory Alternatives

Otter and Bottlenose Dolphins are qualifying interests of the Lower Shannon Estuary cSAC. Section 10.0 above, Appropriate Assessment, concludes that the development would not adversely impact on the conservation objectives of the cSAC.

I conclude on the basis of the information provided, and subject to the identified mitigation measures, that there is no basis to consider that a need for a derogation licence in respect of Bottlenose Dolphin, as referenced under s.6(2) of the Act of 2022, arises in respect of the designated development.

With respect to Otter, the proposed development will not result in direct impacts on otter and will not result in damage to, or destruction of, a breeding or resting place of otters. There is no requirement to consider alternatives. I conclude therefore on the basis of the information provided, that there is no basis to consider that a need for a derogation licence in respect of these species, as referenced under s.6(2) of the Act of 2022, arises in this case.

The proposed development will not result in direct impacts on any bat species using the site and will not result in the loss or removal of any roosting, breeding site or resting place for bats. I conclude therefore, having regard to the information available, that there is no basis to consider that a need for a derogation licence, as

referenced under s.6(2) of the Act of 2022 arises in respect of the proposed development.

Conclusion:

Having regard to the available information, including the results of surveys undertaken in respect of the designated development and previously undertaken in the area, it is concluded that there is no basis to consider that a requirement for a derogation for the purposes of Article 16 arises. Accordingly, no recommendation as to the granting of such a derogation under article 6(2) of the regulations of 2022 is required.

I note, however, that this conclusion does not obviate the requirement on the developer to adhere to the requirements of articles 51 and 52 of the European Communities (Birds and Natural Habitats) Regulations, 2011-2021.

12.0 Recommendation

Development (Emergency Electricity Generation) Act 2022
Development (Emergency Electricity Generation) Regulations 2022

Planning Authority: Kerry County Council

APPLICATION by SSE Generation Ireland Limited submitted to An Bord Pleanála on the 17th February 2023 by the Minister for the Environment, Climate and Communication for the purposes of carrying out an environmental assessment and appropriate assessment by the Board of the designated development as provided for in accordance with section 5(2) and section 6(1) of the Development (Emergency Electricity Generation) Act 2022 in respect of development comprising the installation and operation of temporary emergency electricity generating plant, to a limit of 500 hours per annum, at the existing Tarbert Power Station, Tarbert in the townland of Tarbert Island, Co. Kerry.

Decision:

The Board recommends that the conditions as set out below be taken into account in any approval of the designated development by the Minister.

12.1. Environmental Assessment

The Board carried out an environmental assessment of the designated development in accordance with section 5(2) of the Development (Emergency Electricity Generation) Act 2022.

The Board considered that the Environmental Report, supported by the documentation submitted by the applicant, was prepared by competent experts and describes the likely main effects of the designated development on the environment.

The Board agreed with the examination set out in the inspector's report of the information contained in the Environmental Report and associated documentation submitted by the applicant, and submissions made in the course of the application for approval.

In coming to its conclusions, the Board had regard to

a) European, national, regional and local planning, energy, climate and other policy of relevance, including in particular the following:

European Policy

- Directive 2014/52/EU amending Directive 2011/92/EU (EIA Directive)
- Directive 92/43/EEC (Habitats Directive, and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directive).
- Directive 2000/60/EC (Water Framework Directive)

National Policy

- National Development Plan (2021-2030) (NDP);
- Development (Emergency Electricity Generation) Act 2022;
- Climate Action and Low Carbon Development Amendment Act 2021, amending the Climate Action and Low Carbon Development Act 2015;
- Climate Action Plan 2023;
- Policy Statement on Security of Electricity Supply (November 2021);

- National Energy Security Framework (April 2022);
- The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009).

Regional and Local Policy

- Regional Spatial and Economic Strategy for the Southern Region (2019-2031);
- Strategic Integrated Framework Plan for the Shannon Estuary (2013 – 2020);
- Kerry County Development Plan 2022-2028
- Listowel Municipal District Local Area Plan 2019-2025

b) The brownfield nature of the site and planning history relating thereto.

c) The nature and scale, and infrequent operation of the development limited to a maximum operation of 500 hours per year and the temporary period of operation limited to a maximum of 5 years, of the designated development

d) The range of mitigation measures set out in the Environmental Report and the Natura Impact Statement accompanying the application and recommended hereunder.

e) The submissions received in relation to the application by all parties.

f) The report of the planning inspector.

g) The memorandum of the Ecologist appointed to assist the Board.

The Board has concluded that the main likely effects of the designated development on the environment are as follows:

- The development would give rise to a slight increase in airborne emissions with resulting air quality impacts during the operational phase. Modelling indicates that the impact on human and ecological receptors in the receiving environment would not be significant. Having regard to the scale and limited deployment of the plant and the modelling undertaken which demonstrates the designated development's ability to adhere to the air pollution limits set out in the Air Quality Standard Regulations (SI 180 of 2011), it is not considered that impacts in relation to any air borne emissions would be significant.

- Noise emissions during construction have the potential to give rise to adverse effects on adjoining sensitive residential and ecological receptors, in particular wintering birds. Having regard to the temporary duration of such activity and the identified mitigation measures, including in particular the proposed acoustic barriers around the site perimeter and the timing of certain activities, significant adverse effects are not considered likely. Such screening would also address potential visual disturbance effects on species of conservation interest in the adjacent habitats. Subject to the achievement of the specified operational noise levels, significant impacts on residential amenity or on ecological receptors are not considered likely.
- Peak construction traffic movements have the potential to impact on adjoining residential amenity during night-time hours. Having regard to the limited duration of such activity and subject to restrictions on the routing and volume of HGV movements during such periods, adverse impacts on residential amenity are not considered likely.
- Specific noise disturbance effects on Annex II species of the adjoining cSAC, in particular, bottlenose dolphin is not considered likely to be significant having regard to the on-shore nature of the proposed works and subject to the identified mitigation measures, including in particular adherence to Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (DAHG 2014).
- The designated development would give rise to an increase in operational greenhouse gas emissions with resulting impacts on the achievement of EU and National climate change and carbon emission reduction targets, however the impact on the environment would not be significant in the long-term having regard to the scale and the temporary and emergency nature of the facility, which would only operate intermittently, as and when needed, and for no more than 500 hours per year.
- The development could give rise to impacts on surface and groundwaters as a result of run-off of sediments, accidental spillages of chemicals, hydrocarbons or other contaminants entering waterbodies during construction and operational phases. These impacts would be adequately mitigated by the implementation of

standard, best practise guidance and measures, including measures for the control of polluting materials and the management of surface waters and adherence to IE licence requirements. Subject to such measures, significant residual effects on the environment are not considered likely.

- The Designated Development comprises a highly vulnerable use and the subject lands are at risk of flooding. Having regard to the history of uses on these lands and subject to the provision of flood defences around the site, the development can be regarded as acceptable in principle. In this regard, conditions with regard to the level of flood protection to be achieved are considered to be appropriate.

In conclusion, having regard to the identified likely main effects, the Board is satisfied that the designated development would not have any unacceptable direct or indirect impacts on the environment, subject to implementation of the identified mitigation measures.

Having regard to the above conclusions, the Board recommends that the conditions as set out below be taken into account in any decision by the Minister to approve of the designated development.

12.2. Appropriate Assessment

AA Phase 1

The Board noted that the designated development is not directly connected with the or necessary for the management of any European Site.

The Board completed an Appropriate Assessment Screening exercise in relation to potential effects on designated European Sites, taking into account the Screening Report submitted with the application, the report and screening assessment completed by the Board's Inspector which concluded that the following sites are the European Sites in respect of which there is a likelihood of significant effects:

- Lower River Shannon Special Area of Conservation (Site Code 002165)
- River Shannon and River Fergus Estuaries Special Protection Area (Site code 004077).

- Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (site code 004161),
- Moanveanlagh Bog cSAC (site code 002351).

The Board concluded that Appropriate Assessment was required in respect of these European Sites.

AA Stage 2:

The Board considered that the Natura Impact Statement and associated documentation submitted with the application, the mitigation measures contained therein, the submissions and observations on file, including that of the Development Applications Unit, and the report of the planning inspector and the memorandum from the Ecologist, and carried out an Appropriate Assessment of the implications of the designated development on European Sites in view of the sites' conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an Appropriate Assessment and to allow it to reach complete, precise and definitive conclusions for Appropriate Assessment.

In completing the assessment, the Board considered in particular the likely direct and indirect impacts arising from the designated development both individually and in combination with other plans and projects, the mitigation measures which are included as part of the current proposal and additional mitigation measures recommended by the inspector in view of the sites' conservation objectives. In completing the Appropriate Assessment, the Board accepted and adopted the Appropriate Assessment carried out by the Board's Inspector of the potential effects of the development on the aforementioned European Sites, having regard to the sites' conservation objectives. In overall conclusion, the Board was satisfied that the proposed development would not adversely affect the integrity of the European Sites, in view of their conservation objectives, namely;

- Lower River Shannon Special Area of Conservation (Site Code 002165)
- River Shannon and River Fergus Estuaries Special Protection Area (Site code 004077).
- Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (site code 004161),

- Moanveanlagh Bog cSAC (site code 002351).

There is no reasonable scientific doubt as to the absence of such effects.

12.3. **Recommended Conditions:**

1)	The designated development shall be carried out and completed in accordance with the plans and particulars, including the mitigation measures specified in the Environmental Report, Framework Construction Environmental Management Plan and the Natura Impact Statement lodged with the application to the Minister on the 17th February 2023, except as may otherwise be required in order to comply with the following conditions. **Reason**: In the interest of clarity and environmental protection
2)	The construction of the development shall be managed in accordance with a finalised Construction Management Plan, which shall be prepared and made available for inspection by the Minister prior to commencement of development. This plan shall provide details of intended construction practice for the development, including, inter alia: a) Location of the site and materials compounds including areas identified for the storage of construction refuse; b) Location of areas for construction site offices and staff facilities; c) Final alignment of acoustic barriers and site security fencing and hoarding; d) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network; e) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels. This should include additional mitigation measures in respect of noise identified in section 1.5 of Appendix E of the Natura Impact Statement.

	f) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater; g) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil; h) A site-specific water management plan, to include detailed drawings of adequate scale, for each development phase of the project identifying measures to ensure that surface water run-off is attenuated and controlled such that no silt or other pollutants enter estuarine waters, local surface waters or drains. A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority. **Reason**: In the interest of amenities, public health and safety.
3)	During the operational phase of the development, the noise level arising from the development, shall not exceed:- a) An Leq,1h value of 55 dB(A) during the period 0800 to 2200 hours from Monday to Saturday inclusive at any point along the boundary of the site. b) An Leq,15 min value of 45 dB(A) at any other time at the nearest dwelling at any other time. The noise at such time shall not contain a tonal component. All sound measurement shall be carried out in accordance with ISO Recommendation 1996:2007: Acoustics - Description and Measurement of Environmental Noise. **Reason**: To protect the residential amenities of property and avoid adverse effects on species of conservation interest in the vicinity of the site.
4)	a) All discharges through the stormwater drainage outfall shall pass through a silt trap and Class 1 Hydrocarbon Interceptor. Any bunded areas within the site will have valve-controlled discharge points as part of their connection to the outfall drainage network. Drainage runoff from these areas will be tested for contamination prior to release to the outfall drainage network

	b) All material storage and containment at the Designated Development site, to include all tanks (including drums and containers), bunds and pipelines which store or transmit potentially polluting substances, and transformers shall be designed and installed in accordance with the Environmental Protection Agency *IPC Guidance Note - Storage and Transfer of Materials for Scheduled Activities* (EPA 2013), as amended. Each fuel oil storage tank shall be provided with a leak detection system. **Reason**: In the interests of environmental protection.
5)	The development shall provide firewater retention which shall be designed and sized in accordance with the provisions of the Environmental Protection Agency *Guidance on Retention Requirements for Firewater Run-off* (EPA 2019). In the event of a fire or a spillage to storm water, the system shall provide for the automatic diversion of storm water for collection. **Reason**: In the interests of environmental protection.
6)	During the site clearance, preparation and construction phase of the development, dust levels shall not exceed 350 milligrams per square metre (TA LUFT Air Quality Standard) per day averaged over 30 days, when measured at the site boundary. **Reason**: In the interest of public health and residential amenity.
7)	A finalised Construction Traffic Management Plan shall be agreed in writing with the relevant Roads Authorities which shall provide for the following: a) Details of the timing and routing of construction traffic to and from the construction site, including abnormal loads, and associated directional signage. b) Consultation with all relevant parties involved in the management of the local and national road network traversed by the haul route to ascertain any operational requirements such as delivery timetabling, etc. c) Surveys of structures on the public road network to be used as haul routes, to confirm their capacity to accommodate any abnormal weight loads. d) Any damage to the local and national road network arising from the transportation of components units and/or materials to the site, identified in

	post-construction phase surveys, shall be rectified in accordance with the requirements of the Road Authority, at the developer's expense. Details in this regard shall be agreed with the Road Authority. **Reason**: In the interest of road safety, orderly development and the proper planning and sustainable development of the area.
8)	The movement of construction HGV's to / from the N67 during the night-time period shall be restricted to 2 no. movements per hour and shall be restricted to the use of the eastern entrance to the development site, in accordance with section 4.3.5.2 of the Environmental Report. **Reason**: In order to protect adjoining residential amenities.
9)	Construction and demolition waste shall be managed in accordance with a construction waste and demolition management plan, which shall be prepared in accordance with the "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects", published by the Department of the Environment, Heritage and Local Government (2006). **Reason**: In the interest of sustainable waste management.
10)	a) The developer shall undertake an annual waterbird monitoring programme covering all phases of the development including, construction, operation and decommissioning, in accordance with methodology set out in MKO (2019), Waterfowl numbers, usage and distribution on the River Shannon and the River Fergus Estuaries 2017-2018, for Subsites 0I425 and 0N011. These reports shall be submitted annually to NPWS. b) The developer shall develop and undertake a suitably designed terrestrial bird monitoring programme during the breeding and non-breeding seasons for all phases of the development including, construction, operation and decommissioning. Reports shall be submitted annually to NPWS. **Reason**: To monitor the local bird population during the project life
11)	a) Lighting during construction and operational phases of the development shall be designed in accordance with Guidance Note 01/21 *The Reduction of Obtrusive Light at Night* (Institute of Lighting Professionals (2021)).

	b) LED lighting used on the site should have CCT values at or below 3000K, where possible. **Reason**: In the interests of wildlife protection.
12)	The proposed flood defence wall shall be provided to a level to protect the site from coastal flooding in the 1-in-1000 event (0.1% AEP) in accordance with the levels identified in the National Coastal Flood Extents 2021 - Mid-Range Future Scenario. **Reason**: In the interests of public health and safety and to obviate the risk of ecological impacts from inundation of the site.
13)	The acoustic barrier fence, as indicated in Figure 12 of the NIS, shall be extended along the north-eastern shore of Tarbert Island as far as the CW Pumphouse / WTP Building (Disused). **Reason**: In the interests of wildlife protection.
14)	During the construction phase, the developer shall adhere to the measures set out in "Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes", published by the National Roads Authority in 2008. **Reason**: In the interest of wildlife protection.
15)	a) Impact piling activity on the site shall be undertaken in accordance with the provisions of the '*Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters*' (DAHG 2014). b) The radial distance of the Monitored Zone for the purpose of section 4.3.3 of the Guidance shall be subject to agreement with the Regulatory Authority. c) Underwater noise monitoring shall be undertaken before, during, and after, any piling activity within 20m of the Shannon Estuary and the results of such monitoring shall be included as part of reporting requirements to the Regulatory Authority under the Guidance (2014). **Reason**: In the interests of wildlife protection
16)	a) All mitigation measures in relation to archaeology and cultural heritage as set out in Chapter 4.10 of the Environmental Report shall be implemented in full,

	except as may otherwise be required in order to comply with the conditions of this Order. b) The Construction Environmental Management Plan (CEMP) shall include the location of any and all archaeological or cultural heritage constraints relevant to the proposed development as set out in Chapter 4.10 of the Environmental Report. The CEMP shall clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be employed to protect the archaeological or cultural heritage environment during all phases of site preparation and construction activity. c) The Planning Authority and the Department shall be furnished with a final archaeological report describing the results of all archaeological monitoring and/or any archaeological investigative work/excavation required, following the completion of all archaeological work on site and any necessary post-excavation specialist analysis. All resulting and associated archaeological costs shall be borne by the developer. **Reason**: To ensure the continued preservation [either in situ or by record] of places, caves, sites, features or other objects of archaeological interest.

12.4. Section 6(2) - Strict Protection of Certain Animal and Plant Species under the Habitats Directive

Having regard to the available information, including the results of surveys undertaken in respect of the designated development and the results of surveys previously undertaken in the area, it is concluded that there is no basis to consider that a requirement for a derogation for the purposes of Article 16 arises. Accordingly, no recommendation as to the granting of such a derogation under article 6(2) of the regulations of 2022 is made.

Statement

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or

sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Conor McGrath
Senior Planning Inspector
27/03/2023

Appendix 1: Memorandum of Consultant Ecologist - Tarbert Emergency Generation Provision of professional ecological advice and technical support March 2023

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Emergency Generati