MOTT MACDONALD

Non Technical Summary

North Wall Emergency Power Generation Plant

June 2022

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Introduction

The Electricity Supply Board (ESB) is proposing to install an emergency power plant within the existing North Wall Generating Station. The proposed emergency power plant will be operational for a period of up to five years from early 2023 to late 2027.

The proposed works will consist of the demolition of a number of buildings and plant within the existing site and installation of a temporary modular emergency power plant comprising six turbines (General Electric LM2500Xpress units). Modifications will also be required to the existing site drainage system.

The emergency generating plant will operate up to 500 hours per annum on natural gas only, typically four hours per day when called on to run.

Natural gas will be provided by the existing gas compound on site. The Gas Networks Ireland Above Ground Installation (AGI) is located in the Northwest corner of the site. On-site gas compression will be provided to meet the inlet pressures required by the gas turbines.

Each emergency generating unit will be connected to the existing on site 220kV transformer by means of cables running on elevated pipe/cable racks. The 220kV transformer is connected to the national grid through the existing on-site 220kV Substation. No changes to the gas and electricity transmission infrastructure will be required to facilitate the proposed development.

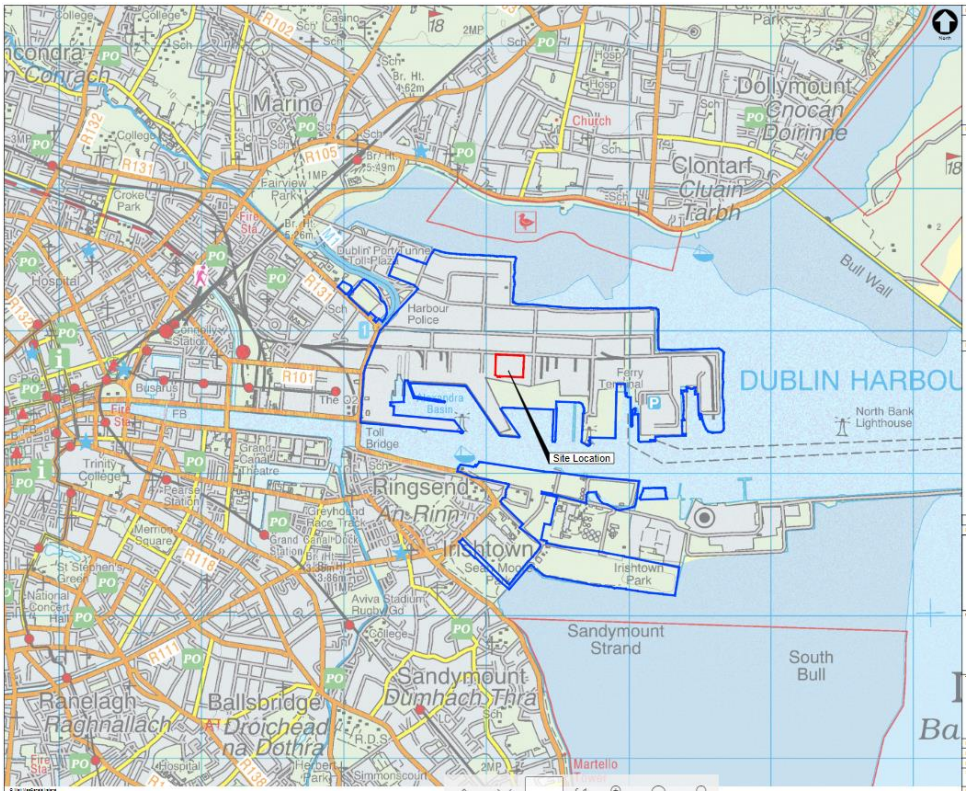
The North Wall Generating Station site operates, and will continue to operate, under the existing Industrial Emissions (IE) licence (Registration Number: P0579). regulated by the Environmental Protection Agency (EPA). At the time of writing this report, ESB was in the process of preparing an application for review of the IE licence P0579 to allow for the proposed development.

An image of the proposed emergency gas turbine plant is provided below together with a map showing the proposed location and a 2019 drone image of the site, looking south towards the River Liffey Estuary.

LM2500Xpress Gas Turbine Generator

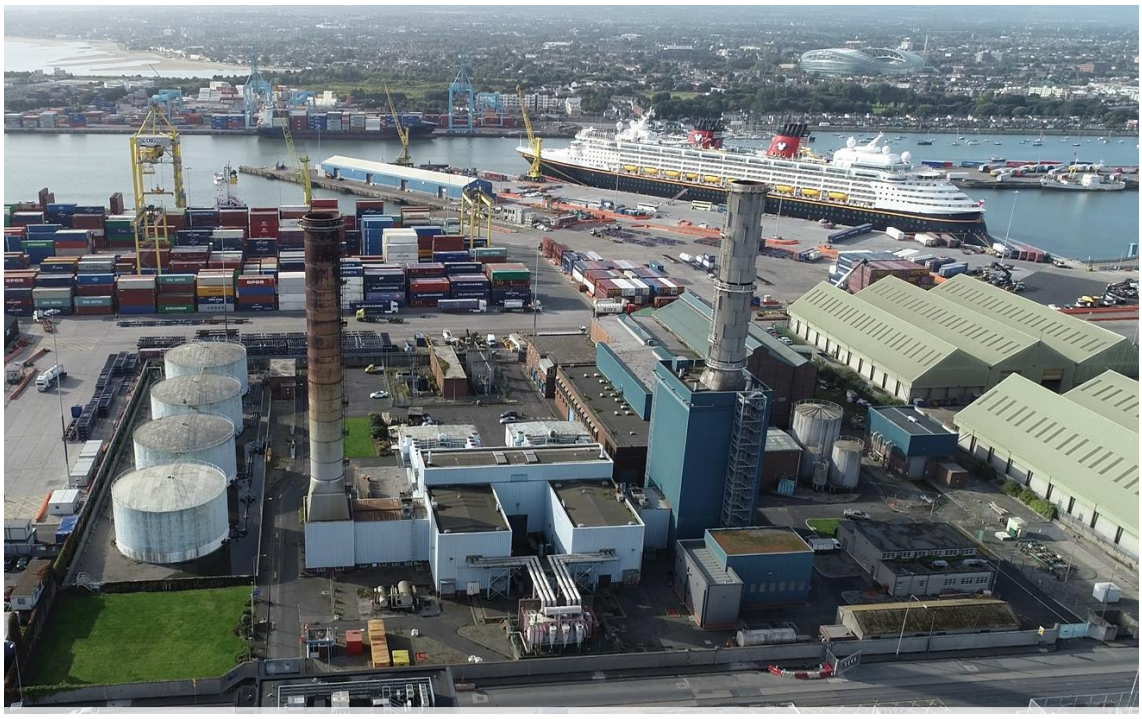
Source: GE

Site Location



Source: Mott MacDonald (©Ordnance Survey Ireland/Government of Ireland. Ordnance Survey Ireland Licence No. EN0034520)

North Wall Power Station looking south towards the River Liffey Estuary



Source: ESB Drone image 2019

Project Need

The Commission for Regulation of Utilities (CRU) has a statutory responsibility, under the European Communities (Internal Market in Electricity) Regulations (SI 60 of 2005) (the "Regulations") to have regard to the security of supply of electricity and under Regulation 28(5), to take such measures as it considers necessary to protect security of supply.

Regulation 28(10) provides that where the CRU has identified a likely and substantial risk to security of supply, the CRU, with Ministerial consent, may direct the transmission system operator, the public electricity supplier or any licensed undertakings, as appropriate, to undertake all or any such arrangements as the CRU considers necessary, including financial arrangements, relating to security of supply in a manner approved by the CRU. The use of Regulation 28(10) is on the basis that it is "*not practicable in the time available otherwise to ensure security of supply*".

Issues around security and continuity of supply have recently arisen because of unexpected generator outages and delays in delivery of new gas fired generation capacity. EirGrid's identification of a potential capacity shortfall, is set out in its *All Island Generation Capacity Statement 2021.*

The CRU, working with System Operators, has therefore progressed several measures to support both medium-term and short-term electricity supply and demand balance. On 9 August 2021, the CRU published a number of letters which assist in providing context to the current considered risk and security of supply. The letters related to directions to EirGrid and Gas Networks Ireland (GNI), in respect of progressing some of the measures being undertaken, to protect and address the security of energy supply.

in November 2021, EirGrid published a 'Roadmap', "*Shaping Our Energy Future".* Whilst this document seeks to outline key development from a networks, engagement, operations and market perspective that will be needed to support a secure transition to at least 70% renewables on the electricity grid by 2030, it also highlights the fact that in the short-term, there is an urgency to address the risks to security of supply. In this regard, it identifies there is a "*need to develop mitigating solutions that are outside of the current market construct",* and that *"where such solutions are approved, they will be proportionate and informed by clearly stated positions on the immediate short-term supply deficits and associated risks".*

The Minister for the Environment, Climate and Communications also published a new Government Policy Statement in November 2021 to ensure security of electricity supply. The Policy Statement indicates 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[1] and facilitate the target of up to 80% renewable electricity generation by 2030. The "*Policy Statement supports the Commission for Regulation of Utilities (CRU) and EirGrid as they carry out their statutory roles to ensure security of electricity supply in Ireland. It provides clarity to investors and planning authorities that the Government fully supports the actions being taken by the CRU and EirGrid, including the need to develop new gas-fired generation capacity".*

Given the emergency nature of the Emergency Generation Plant, the most expedient approach to project preliminaries and development is a key requirement. Potential delays in the standard planning processes under the Planning and Development Act 2000 (as amended) (PDA) could result in a real risk that critical timelines may not being achieved.

[1] In 2020 the gas network powered 51% of the country's electricity requirements (System and Renewable Data Summary Report – EirGrid) – Gas Networks Ireland: Ireland's Gas Network "Delivering for Ireland", November 2021 (https://www.gasnetworks.ie/corporate/company/our-network/irish-gas-market-overview/Irelands-Gas-Network_Delivering-for-Ireland_FINAL-file-as-published-11-11-2021.pdf)

Therefore, for the successful delivery of the emergency generation in the timeframe required and in the context of the critical and urgent nature of these services, it is envisaged that the provisions of Section 181(2)(a) of the PDA will be employed, subject to the approval of the Board. The PDA may be disapplied by Ministerial Order under Section 181(2)(a) of same in the case of development required 'by reason of accident or emergency'.

ESB has consequently entered into an agreement with EirGrid to progress certain time-sensitive works which includes the preparation of planning documents for EirGrid to make these available to the Minister to accompany the application for approval under Section 181(2)(a).

Purpose of this Non-Technical Summary

An Environmental Impact Assessment Report (EIAR) has been prepared to support the application for approval under Section 181(2)(a), as described above.

This document is a non-technical summary to that EIAR providing a brief overview of the associated impacts and mitigation of the proposed development.

It is recommended that the planning drawings and the main EIAR document are reviewed in order to obtain detailed information. A Construction Environmental Management Plan and a Construction Resource Waste Management Plan are also included in Appendix 3.1 of the EIAR.

Alternatives Considered

If the proposed development does not proceed, it is possible that power outages could occur in the absence of the proposed development unless emergency generation is provided at some other location due to the forecasted system demand. This would have a significant adverse effect in terms of energy requirements and supply at home, at work, for commercial developments and industry.

The following sections provide discussion on alternative sites, technologies and fuels.

Alternative Sites

In 2021 EirGrid sought locations within the Dublin area with adequate space and existing gas and electrical grid connections to enable connection of 200 MW of emergency generation due to potential shortfall in available generation.

North Wall Generating Station, the site of the proposed development, was identified as meeting the necessary criteria. EirGrid identified North Wall as a preferred location at which to progress the provision of emergency generation.

Much of the existing infrastructure at North Wall Generating Station can be utilised thereby negating the need to undertake extensive works as part of this proposed development and mitigating potential environmental impacts by avoidance.

The development will not require the acquisition or development of any Greenfield areas, mitigating by avoidance potential environmental impacts.

The site has a long history of power generation and an established infrastructure network. As the necessary transmission infrastructure is already in place and available to take the electricity generated, it is not anticipated that there will be any requirement for works to upgrade the transmission infrastructure in the area as a result of the proposed development.

Alternative Technologies

EirGrid sought generation technologies that could be installed quickly, could generate significant amounts of electricity and comply with environmental emission controls and legislation.

The GE LM2500Xpress generating units are specifically designed to meet the requirements for temporary large scale electricity generation. Enquiries to GE confirmed that the required six generating units could be supplied to satisfy the timeline set down by EirGrid.

Alternative Fuel

A natural gas supply, adequate to supply the generating units, is connected to North Wall Generating Station.

Natural gas has negligible sulphur and particulate matter content when compared to liquid fuels. The LM2500Xpress generating units are designed to operate on natural gas producing lower emissions than if fired on liquid fuel.

There is no requirement to store gas oil as standby fuel for the emergency generation plant. The generating units will operate using natural gas only.

Project Overview

Key Plant, Processes and Operating Procedures

As detailed previously, the temporary emergency generating plant will be installed for up to five years from early 2023 to late 2027 and will operate for up to 500 hours per annum on natural gas only, typically four hours per day when called on to operate.

The gas turbine technology proposed will be a modular gas turbine units (six in total). The units will be delivered in fully assembled modules and tested to allow for quick installation, reliable operation, and ease of maintenance in the field whilst saving valuable construction and lead time, allowing a quick response to the national electricity emergency.

The proposed technology comprises a turbine module and a generator module. The turbine module will be connected to the generator module on site. Landing legs will be provided to support and level the equipment.

A control house module will be inter-connected electrically to the turbine and generator modules on site.

The site is currently connected the natural gas network supplied to the site by gas Networks Ireland (GNI). The existing connection will supply gas to the emergency generation units. Gas pipes connecting the gas supply and the units will be run on elevated pipe/cable racks.

The units will connect to the existing North Wall 220kV Substation by means of cabling running on elevated pipe and cable racks.

The exhaust gases from each gas turbine will be discharged to atmosphere through an 11m high stack (six in total), in accordance with the Industrial emissions Licence for the site, which is regulate by the EPA.

Water will be supplied to site via two existing Irish Water towns water connections. The number of construction workers required during the construction phase is expected to peak at approximately 100 persons. Up to five operational staff will be on site during the day time and up to two staff will be on site in the evening time seven days a week. Water demand will typically be limited to domestic water consumption for staff welfare and there is sufficient existing water supply on site to meet water demand associated with the emergency plant. Towns water will be stored in a common firewater/ storage tank of approximately 1250m^3 in volume and will be used by the fire water system and for general domestic supplies.

No change in surface water run-off volume is proposed as the proposed plant area is on an area of existing hardstanding which drains to the existing surface water drainage system, in

accordance with the existing EPA regulated IE licence. It will however be necessary to reconfigure the drainage network in the area of the main carpark where the Emergency Generation plant is to be located. This area currently, and will continue to drain, via an existing oil interceptor to the River Liffey Estuary to the south of the site. Prior to the construction phase of the proposed development ESB will have installed an additional new Class 1 oil interceptor immediately upstream of the existing interceptor which will remain in-situ. Surface water from the northern part of the North Wall site will also continue to be discharged to the Dublin Port rainwater collector drain on Alexandra Road which discharges to the Tolka Estuary (IE licence monitoring/discharge point SW3) via an oil interceptor.

The existing foul wastewater drainage system will continue to be used. No new toilets or welfare facilities are proposed as existing facilities will be used.

Process wastewater will be collected by a suitably licenced waste contractor in accordance with the Waste Management Act 1996, and associated regulations for disposal. No process wastewaters will be discharged to drain.

A new fire water hydrant network will be installed for the protection of the temporary equipment to be installed.

All chemicals and oils will be stored in suitably bunded areas and with weather protection.

A new lighting arrangement will be provided to ensure a safe work environment for staff on site.

New outdoor lighting will be minimised for health and safety requirements. It is expected however that site lighting will remain dominated by the high intensity port lighting to the south of the site.

There are no proposed changes to the existing site security measures or boundary walls.

Construction Phase Activities

The following sections provide a description of the construction phase activities, which will be carried out in three phases.

Construction Phase Description and Duration

The total number of construction staff on-site will vary during the construction phase of the works but are expected to peak at approximately 100 persons.

Normal working hours for external site activities during the construction period are expected to be Monday to Friday 07:00 to 19:00 hours and 08.00 to 17.00 on Saturday. During certain stages of the construction phase, it is expected that some work will have to be carried out outside of normal working hours however this will be kept to a minimum.

Construction activities will gradually phase from pre-construction site preparation and removal of redundant structures to predominantly construction and modular assembly works followed by commissioning and testing of the proposed power plant and equipment.

The construction phase of the project is expected to commence in Q2 / Q3 2022 and last for approximately 15 months. The table below provides an outline schedule of the proposed activities.

Construction Schedule

Phase	Timeline
1. Pre-construction works	Two months
2. Demolition works	Two months
3. Plant construction works	Eleven months (six months civil works and five months installation works)
Total	**15 months**

The demolition works and plant construction works will be carried out by separate contractors. This approach has been adopted to ensure that a contractor with the appropriate competency and experience is carrying out the relevant construction phase.

All waste arisings will be managed in accordance with the Waste Management Act 1996, and associated Regulations.

Pre-construction Works

The pre-construction phase of development includes preparatory works and consultation with statutory bodies [Health and Safety Authority (HSA), EPA etc] and the public as required. Following this process, site clearance activities will commence. Typical activities will include preparation of the construction working area, laydown area and site clearance as required. During this period the structural assessments of any buildings proposed for demolition will be undertaken to determine demolition method and sequencing.

The site has been in use for electricity generation since the late 1940's and its history of use is well known and documented. A number of areas of the site will require excavation for construction purposes. In addition to the previous studies carried out and the assessment presented in this EIAR, soil in these areas will be tested in advance of or during the construction phase to identify the appropriate waste classification which will determine the appropriate route for disposal.

Demolition Works

The proposed foundations for the temporary generation plant will generally be constructed to finish above the existing ground levels on site. Where existing substructures or foundations are encountered, these will be removed where necessary. It is expected that the maximum depth of any new foundation inclusive of stone capping layers will be 800mm. Below ground services in conflict with the new foundations will also be removed as required.

Where openings are created in buildings by the removal of equipment or part of the building during the alterations works, recycled similar finish materials from the site will be used to close the openings where possible. This will help reduce the waste generated by the works while ensuring the finish to buildings matches with the current finishes. Where recycled material cannot be used new materials will be sourced to match the existing finishes.

The equipment and structures identified in Drawing No 229101053-MMD-00-XX-DR-C-0010 will be removed by a specialist contractor prior to the construction phase.

The general methodology of removal will be by mechanical dismantling that will bring all structures and equipment to ground level/grade in a progressive manner using a top-down approach. All buildings will go through a structural appraisal process prior to dismantling works commencing, to ensure the proposed demolition sequence maintains the stability of the remaining buildings and unplanned collapse is prevented. All open spaces/voids created as part of the removal process will be backfilled with suitable materials to the surrounding grade levels.

Prior to general removal works all hazardous materials will be identified and will be removed by specialist contractors in advance of the general dismantling and demolition works. Services to

the buildings and structures will be isolated and physically disconnected. Any remaining chemicals will be removed, and tanks/vessels will be decontaminated to reduce the residual risk to as low as reasonably practicable. Further detail on specific equipment and structures is provided overleaf.

Equipment and structures to be removed

Equipment / Structure to be Removed	Details
Gas Compressor Building	The building is constructed on a concrete foundation with an internal precast concrete frame and a mixture of brick and corrugated cladding for the lower and upper parts of each elevation. The lower part of the building is of cavity wall construction with a blockwork inner leaf. The roof consists of a steel frame with purlins and roof bracing. The roof is finished with profiled with steel cladding. The structure is roughly 204m^2 measuring approximately 17m long x 12m high x 12m wide. The building together with redundant plant, equipment and piping will be demolished to slab level. Existing foundations, ground slab and below ground services in conflict with the new foundations will also be demolished as required. There is a switch room to the North of the building, that will also be demolished to ground level. The switch room houses the electrical switch gear for the compressors and is constructed from brick with a block inner leaf and a concrete roof.
38kV Substation	The 38kV substation is located to the south of the main car park and must be removed in its entirety to facilitate the installation of the temporary gas turbines. The 38kV substation building is approximately 29m long x 6m wide x 5m high and covers approximately 174m^2. It is a free-standing single-story building of cavity wall construction (brick outer leaf with concrete block inner leaf) accessible from ground level The building contains a concrete slab (which is believed to be ground bearing) with the floor coated with an epoxy paint. All equipment internal to the 38kV building has previously been removed. The 38kV building will be demolished to a maximum of 800mm below existing ground level. The transformer bunds and fire walls will be demolished. Existing foundations and below ground services above 800mm below ground level, will also be demolished as required. This excavation will be backfilled where necessary with appropriate inert engineering fill and finished at ground level to facilitate the placement of the emergency generation equipment.
Fuel Oil Pump House	The Fuel oil Pump House is located on the south-eastern side of the site, adjacent to oil tanks 3 and 4 and the 38kV substation. The building will be demolished to ground level. Existing foundations and below ground services in conflict with the new foundations will also be demolished as required. The equipment floor area of the building is approximately 1.2m below ground level. This area will be backfilled with appropriate inert engineering fill and finished at ground level.
Air Inlet Filter House and Electrical Rooms	The air intake structures located at the southern ends of the turbine hall for CT4 and CT5, supplied combustion air to the now redundant gas turbines on site. Below each air intake is a decommissioned electrical room that contains high voltage switchgear and control and instrumentation panels for the redundant gas turbines. The intake structure is a steel skeletal frame and a mixture of brick and corrugated cladding. The air intake structure also supports a number of fin fan coolers which formed part of the gas turbine cooling water system The air intake structure, Speedtronic rooms and a number of fin fan coolers will be demolished and a new gable end to the building installed on the remaining portion of the turbine halls .
Gate Keeper's House	The existing gate house is a single store building of traditional block work construction. This building will be demolished to slab level.

Site Offices, workshop and storage building

The existing administration and workshop building will be used as site offices and a workshop and storage building during both the construction and operational phases. This work is likely to include the electrical rewiring of the building to electrically separate the building form any existing electrical circuits and allow for the safe completion of the demolition works described below.

During the construction phase temporary welfare facilities will be provided. These will be connected to a sealed holding tank to be emptied and disposed of off-site by a licensed contractor to an approved licenced facility, in accordance with the Waste Management Act 1996 and associated regulations.

Ground Works

The areas for the installation of new equipment will be levelled and new equipment foundations will be constructed. New equipment foundations are expected to extend over an area of approximately 3,500 m^2, have a thickness of 300 to 400mm, with up to 200mm of this depth above existing ground level. Beneath this proposed foundation will be a layer of new formation stone capping extending up to 800mm below existing ground level. Existing foundations or buried structures will be removed to a depth of 800mm. Existing below ground services (surface water drains) will be rerouted around areas where foundations are to be constructed.

It is anticipated that foundations will be shallow raft type ground bearing foundations which have been chosen to avoid the groundwater contamination (historical oily plume) known to exist under part of the site. Some shallow piled foundations may be used outside the area of groundwater contamination.

A number of existing ground water monitoring wells will need to be relocated. New locations will be agreed with the EPA prior to construction but are expected to be located down gradient of the existing plume.

The following construction approach will be adopted for ground works:

- The majority of the civil works are planned to take place in summer months.
- When heavy rainfall is forecast during the civil works, or if the civil works extend into the Winter season, measures will be put in place to restrict rainwater seepage into the ground :
- Excavation in the area of known groundwater contamination will be minimised.
- Plant infrastructure will be positioned away from the location of groundwater contamination as far as possible
- Shallow raft type ground bearing foundations will be used in the area of groundwater contamination. This will limit the depth of excavation to 800mm. The surface water drainage network will be designed to be above the ground water level.

Piling will be avoided in the area of the groundwater contamination. Where piling is required elsewhere on site, it will be undertaken in accordance with the parameters assessed in the EIAR and in the NIS and in the CEMP. On completion of construction, the site will comprise paved surfaces of similar area to existing, laid to falls. All works will be carried out within the parameters assessed in the EIAR and the parameters assessed in the NIS supporting the application and the measures detailed in the Construction and Environmental Management Plan (CEMP).

Excavated soil, and piling arisings if any, will be tested on site prior to disposal off site or reuse on site.

Excavation will be supervised by a qualified and experienced hydrogeologist/soil contamination expert and the Environmental Clerk of Works (EnCoW) throughout the period of such works.

Plant Construction Works

The Main Contractor will be responsible to ESB for the design and installation of the emergency power generation plant. This will include the design, supply, and installation of all equipment and the installation of all equipment foundations.

Most of the new equipment will be skid mounted or containerised elements fabricated off site and delivered finished or for final assembly on site. The main exception to this is the pipe and cable corridor which will contain the plant pipework (natural gas, fire water etc) and cables (power cables, control cables etc) which will have to be fabricated on site.

The Main Contractor will be responsible to ESB for the construction of the equipment foundations, including the excavation and appropriate disposal of excavated material as well as the construction of the main equipment raft foundations and any piled foundations needed. The Main Contractor will manage the excavation of are confined to material and the safe disposal of this material to a suitably licenced waste disposal facility. In-situ concrete casting will be fully controlled to ensure that cement bound materials are confined within the formwork.

In-situ concrete casting will be fully controlled to ensure that cement bound materials are confined within the formwork.

In the area of the main carpark, where the gas turbines are to be installed, the existing surface water network will need to be modified and re-routed. Surface water drains will also be re-routed and/or sealed in advance of any concrete being cast.

Trucks, mixers, and concrete pumps that have contained concrete will be washed out in a designated impermeable area to prevent pollution. A designated area for concrete truck / shute washout will be provided on site comprising a lined bund to contain wash out. Concrete waste will be removed at regular intervals (every 2-3 days) and reused on site or disposed off-site with other construction waste materials.

The maximum proposed excavation will not exceed a depth of 800mm for the raft foundations. If piled foundations are required, it is envisaged that these would require a similar depth of below ground excavation.

Construction Traffic

The majority of construction traffic will be generated during phase two and phase three the demolition phase and the construction phase. The demolition phase which will see material being removed from site and being disposed of at various licenced waste disposal facilities, depending on the waste classification and quantity of material to be removed from site. As part of the demolition phase there will also be some inert material imported to site. This will generally be used to infill existing but redundant service trenches and basement structures.

For the demolition works it is estimated that up to 50 Heavy Good Vehicles (HGVs) loads from the site (100 HGV movements) will be required (maximum of 15 loads per day) to remove material over the period of asbestos removal and demolition which is expected to extend over a period of two months.

On completion of the demolition phase, the construction phase will commence. The construction phase will see the delivery of construction material such as packaged skids, piping, cabling, secondary steel support frames and bulk material like concrete for the construction of foundations.

Excavated material for the construction of foundations will also be disposed of offsite to suitably licenced waste facilities during the construction phase. It is expected that a peak of construction,

approximately 15 HGV loads daily (30 HGV movements) will be required. An average of four HGV loads daily (8 HGV movements) is anticipated.

Much of the emergency generation plant and equipment, for example, LMXpress units, fin fan coolers, gas skids, pumps skids will be shipped to Ireland through Dublin Port and directly to site and will therefore not need to use the public road network.

Two existing gates are currently used to access the site from Alexandra Road. The M50 Dublin Port Tunnel is located approximately 1.6km to the south-east of the site and is the major route in and out of the docklands for HGVs.

A number of abnormal load deliveries will be required during the construction phase of the project. These abnormal loads will be delivered to Dublin Port. From Dublin Port, abnormal loads will be transferred directly to the site via Dublin Port internal road network and will therefore not need to use the public road network. The expected abnormal loads are as follows;

- 6 x Turbine Module Units
- 6 x Control Module Units,
- 6 x Generator Module Units;
- 3 x Balance of Plant Power Control Modules; and
- 1 x Fire Fighting Module.

The two existing entrances will be used to access the site during the construction and demolition phases. A traffic control person will be used to control traffic to and from the site, as required. Sufficient signage will be provided on both the western and eastern approaches to the site to provide warning to port traffic of the potential construction traffic entering and exiting the site.

The number of construction workers required during the construction phase is expected to peak at approximately 100 persons. It is assumed that staff will travel to site via a combination of public transport, cycling, carpooling, minibus and private passenger vehicles. The site has good public transport links given its proximity to the Luas Red Line and several bus stops.

It is anticipated that a mobile crane will be needed on site for part of the construction and demolition works on site. It is not anticipated that there will be a requirement to over-sail any adjacent sites.

Construction Compounds / Laydown Areas

Given the modular nature of the development, no designated construction compound / laydown area is proposed.

Equipment will be delivered to site in a phased manner and located in its final position on arrival. Small items of plant and materials such as pipework, cables, tools and installation equipment will be stored in the existing stores building.

Construction Environmental Management Plan

A Construction Environmental Management Plan (CEMP) will be implemented during the construction phase. The CEMP will remain a ‘live’ document which will be reviewed regularly and revised as necessary to ensure that the measures implemented are effective.

ESB will monitor the contractor(s) performance on a regular basis and will undertake various compliance checks throughout the duration of the construction period including:

- Review contractor documents against the requirements of the CEMP;
- Undertake regular audits;

- Continuously check records;
- Set up a contractor reporting structure; and
- Conduct regular meetings (at least fortnightly) where Environmental Health and Safety is an agenda item.

Environmental Clerk of Works

The Contractor's Environmental Clerk of Works (EnCoW) will have suitable environmental qualifications and the necessary experience and knowledge appropriate to the role. The EnCoW will be delegated sufficient powers under the construction contract to instruct the Contractor to stop works and to direct the carrying out of emergency mitigation / clean-up operations. The EnCoW will also manage consultation with key stakeholders as appropriate. The EnCoW will be responsible for carrying out regular monitoring of the Contractors CEMP and will report monitoring findings in writing to ESB on a regular basis (at least weekly, but immediately in the case of incidents or accidents).

Health and Safety Requirements

ESB has been appointed Project Supervisor Design Process (PSDP) for the initial design phase of this project. A detailed project specific preliminary health and safety plan detailing the site constraints, work hazards and all other pertinent information has been prepared.

A specialist Demolition Contractor will be appointed to the role of PSDP and will take on the role of Project Supervisor Construction Stage (PSCS) as the demolition works move to their execution phase.

Following completion of the demolition works on site, the Main Contractor will be appointed to the role of PSDP and PSCS for the installation, commissioning and testing of all equipment including the gas turbines.

North Wall Generating Station was previously designated a lower tier site due to the quantity of liquid fuel stored on site. As of the 8 September 2021, following a site inspection by the HSA, the North Wall Generating Station site, the subject site of this application, has been De-Notified as a Seveso Site.

Decommissioning

The operational life of the temporary power plant is expected to be up to five years. Thereafter, the emergency generation plant will be disconnected and removed from site. This equipment is likely to be shipped, via Dublin Port, from Ireland for use at another location.

Remaining equipment such as the water tank, gas compressors, pipework and cabling, will be made safe and retained on site for potential future uses at North Wall Generating Station. Equipment will be stored under appropriate conditions and the site and all associated buildings will be secured. All lubricating oils other potentially polluting consumables will be removed from site.

Waste materials generated during the decommissioning of the plant will be removed from site.

The activities associated with the decommissioning phase will be similar to those associated with the construction phase of the project.

Population and Human Health

Construction activities have the potential to create a nuisance and cause disruption. All work will be carried out having regard to international and national legislation, and best practice guidance. The CEMP will be implemented during the construction phase to safeguard the

environment, site personnel, and nearby receptors, i.e. occupiers of residential and commercial properties, from site activities which may cause harm or nuisance.

The appointed contractors (in collaboration with ESB) will be required to maintain close liaison with local community representatives and statutory consultees throughout the construction period. This is likely to include circulation of information about ongoing activities; particularly those that could potentially cause disturbance, including due to traffic. A telephone number will be provided and persons with appropriate authority to respond to calls and resolve or escalate any problems arising will be available.

All construction activities, including construction traffic, will be managed through the site CEMP.

The proposed development will continue to operate in accordance with the requirements of the existing IEL. Significant adverse impacts on human health are not likely.

Significant adverse long-term residual impacts on population and human health are not likely as a result of the proposed development, given the scale and nature of the proposals.

A positive effect for the population will be the generation of electricity to meet the demand on the national electricity grid and the security of supply needs.

Noise and Vibration

The proposed redevelopment is expected generate noise during both the construction and operational stages, and vibration during construction.

The assessment considered the likelihood of significant impacts based on predictions of noise where the noise emissions of construction and operational plant have been assumed.

The proposed development is located approximately 760m from the nearest dwellings in Ringsend. As a result, the distance between site and noise sensitive receptors is sufficiently high such that there will be no significant adverse effects due to construction or operational noise.

There is potential for complaint due to vibration affecting the Lagan Bitumen office building, which is approximately 18m from the site boundary, if certain types of piling were required at the closest part of the site boundary. However, since the distance of the potential piling works to the Lagan Bitumen office is approximately 110m, significant impacts due to the potential piling work are not likely. If piling is required, measures to limit exposure should be considered depending on the type of method selected.

Air Quality and Climate

The construction phase is predicted to have a ‘Negligible to Medium Risk’ in terms of dust soiling and particulate matter (PM_{10}) effects with no mitigation in place. Best practice mitigation measures adapted from the guidance is presented below and will be implemented through the CEMP.

The operational phase air quality assessment included:

- Dispersion modelling of key pollutant releases from the proposed development in isolation and cumulatively with existing and proposed development on Poolbeg Peninsula;
- Evaluation of the dispersion modelling results with reference to relevant air quality criteria; and

The assessment concluded that no operational phase mitigation measures, in addition to those already inherent to the design of the proposed development, are required. The proposed development will be licensed by the EPA under the industrial emissions licensing process. The

licence will state the limits for atmospheric emissions that the proposed development will be required to comply with.

There is some subjectivity in the assessment of significance with regards to greenhouse gas emissions. If the plant is considered in isolation, then it is reasonable to conclude that there could be a likelihood of short-term negative significant effects, in line with IEMA guidance that all emissions should be considered significant regardless of their scale. However, considering the need for the development it follows that the plant can be considered as providing system-wide emergency generation support. Viewed in this system-wide context, it is therefore reasonable to conclude that significant adverse impacts are not likely.

Land, Soils and Hydrogeology

During the construction phase, impacts to land and land use are anticipated to be localised and temporary in duration and have been classified as slight or significant impacts are not likely.

Operational phase impacts are anticipated to be minimal. Any impacts to the hydrogeological receiving environment will be adequately mitigated through production and implementation of a CEMP, as well as the mitigation embedded in the design detailed above. Therefore, no significant adverse long-term residual impacts are likely as a result of the proposed development.

Surface Water, including Flood Risk

The implementation of the measures detailed in this Non Technical Summary will ensure that the impact of the proposed development on water resources will not be significant.

The existing plant is a licensed activity under the IE licensing regime, as regulated by the EPA and the proposed development is consistent with established activities on the site.

The proposed development will not introduce additional discharges to surface waters and does not involve significant changes to the existing surface water drainage on site. As a consequence, the overall residual impact of the proposed development on surface waters during the operational phase is slight.

With the implementation of the mitigation measures proposed the proposed development will not result in a change in status of any surface water WFD quality elements or prevent any surface water waterbodies from reaching good status in the future.

Due to the site being at risk of tidal flooding only, changes to the site will not affect the functional flood plain and so obstructions to the floodplain will not increase flood risk elsewhere. The flood risk assessment concluded that the development is suitable with appropriate management measures being implemented.

Biodiversity

The biodiversity desk and field surveys did not identify any significant ecological constraints on the site outside of localised vegetation that may be used by breeding birds. The site predominantly consists of built ground with low biodiversity value.

Potential impacts to off site designated sites were identified. The source of impacts identified to designated sites include mobilisation of soil and contaminants which have the potential to enter the drainage network, which discharges to the River Liffey.

The implementation of the measures detailed in this Non-Technical Summary to protect water quality will ensure that the impact of the proposed development on biodiversity resources will not be significant.

Archaeology and Cultural Heritage

The proposed development has the potential for direct negative impacts on post medieval/ industrial heritage remains.

Archaeological monitoring will be carried out within the proposed development area for all sub-surface groundworks during the construction phase by a suitably qualified, competent archaeologist under license and in accordance with the provisions of the National Monuments Acts 1930-2004.

If significant archaeological material is encountered during the course of archaeological monitoring, then resolution of any such significant material will be determined in consultation with the National Monuments Service (DHLGH) and the Dublin City Archaeologist.

Where possible, every reasonable effort will be made to preserve in situ or reduce the effect on any identified archaeological material. Where preservation in situ cannot be achieved, either in whole or in part, then a programme of full archaeological excavation will be implemented to ensure the preservation by record of the portion of the site that will be directly effected upon. This work will be carried out by a suitably qualified archaeologist under license and in accordance with the provisions of the National Monuments Acts 1930-2004.

Roads and Traffic

The vehicles travelling to/from the site, which is located near Dublin Port, will use roads outside of the study area. The vehicles will then divide into smaller traffic volumes entering the site as there are several access points. Accordingly, professional judgement suggests that significant traffic impacts are not likely on roads either within or outside of the study area.

Aided by locally focused construction traffic management mitigation measures detailed in this Non Technical Summary, the residual impact of the proposed development on roads and traffic is likely to be imperceptible.

The Landscape

Due to the scale and nature of the proposed industrial development to be located in an existing power generated site nested in the wider context of Dublin Port, landscape impact significance is deemed to be Imperceptible.

For the visual impact assessment, five representative viewpoints were used. Only within the adjacent port facility is there any visibility of any aspect of the proposed development and this is considered so minor and compatible with the baseline setting that the visual impact is still Imperceptible. The proposed development is not visible from the remaining four viewpoints

Material Assets

Due to the short construction period of 15 months and the location effects on the surrounding industry is not likely to be significant.

During the operational phase, activities will be controlled under the existing IE licence.

There will be an increase in the use of gas to fire the power plant. Gas is a non-renewable asset, however, given that the plant will be in use for the short-term only and will not be permanent, the resulting effects are not likely to be significant.

Major Accidents and / or Disasters

The potential for significant adverse effects of the proposed development on the environment deriving from its vulnerability to risks of relevant major accidents and / or disasters has been

assessed. In all cases it was concluded that the reasonable worst consequences are managed to an acceptable level with existing mitigation in place.

Interaction of Effects

The nature of the environment is such that interactions between all environmental topics are potentially possible and / or may occur to a certain extent for most projects. Key environmental interactions that have been identified are discussed below.

Interaction of effects

Interaction or Indirect Effect	Description
Population and Human Health and Noise and Vibration	There is the potential for interactions between population and noise. This interaction has been discussed in Chapter 7 of the EIAR which concluded that significant adverse effects due to construction or operational noise are not likely due to the distance between the site and noise sensitive receptors
Population and Human Health and The Landscape	There is the potential for interactions between population and human health and the landscape. This was assessed in Chapter 14 with the assessment concluding that the proposed development will not give rise to significant landscape and visual impacts
Population and Human Health and Roads and Traffic	Interactions between roads and traffic and Population and Human Health were taken into account in the assessment, refer to section 13 of the EIAR and the effects are imperceptible given the site location and the nature of the proposals
Population and Human Health and Land, Soils and Hydrogeology	There is potential for interactions between population and human health and land, soils and hydrogeology and these have been assessed in chapter 9 of the EIAR With the implementation of the CEMP and the CRWMP, the conditions of the IE licence in addition to the mitigation embedded in the design detailed in this Non-Technical Summary no significant adverse residual impacts are predicted
Population and Human Health and Surface Water and Flood Risk	Interactions between surface water and population and human health were considered in chapter 10 of the EIAR. There are no licenced surface water abstraction points within the vicinity of the site, and potable water is not sourced within the vicinity of the proposed development site The existing plant is a licensed activity under the IE licensing regime, as regulated by the EPA and the proposed development is consistent with established activities on the site. The proposed development will not introduce additional discharges to surface waters and does not involve significant changes to the existing surface water drainage on site. As a consequence, the overall residual impact of the proposed development on surface waters during the operational phase is slight. With the implementation of the mitigation measures proposed the proposed development will not result in a change in status of any surface water WFD quality elements or prevent any surface water waterbodies from reaching good status in the future
Population and Human Health, Air Quality and Biodiversity	There is the potential for interactions between air quality and population and human health and designated ecological habitats. This interaction has been discussed in Section 8.5.2 of the EIAR and the effects are not likely to be significant.
Biodiversity, Noise, Air Quality, Land, Soils and Hydrogeology and Surface Water	Interactions could potentially occur between biodiversity, noise, air quality, land and soils and water. These interactions have been assessed in Chapter 11 in terms of construction noise, surface water runoff, operational noise, dust and air quality emissions and the effects are not likely to be significant.
Cultural Heritage	In the context of the proposed development, no interactions have been identified that are relevant to the assessment of the archaeological and cultural heritage resource
Material Assets and Roads and Traffic	Interactions with the roads and traffic assessment were taken into account in the assessment, refer to section 15.4 of the EIAR and the effects are imperceptible given the site location and the nature of the proposals

Mitigation and Monitoring

The table overleaf summarises the mitigation controls and other best practice measures identified in relation to the proposed development and sets out the means by which those controls and measures will be secured. The following are provided:

- a unique reference number for each item;
- the section of the EIAR where the mitigation measure is referenced; and
- the monitoring and mitigation measures, as set out in the EIAR.

A contractual obligation will be included within the tendering processes and implemented on appointment of the Contractor to ensure that the proposed works are developed in compliance with the requirements of the CEMP, and the methods, monitoring and mitigation included in the EIAR.

Mitigation and Monitoring Measures

Reference	Mitigation and / or Monitoring Measure
Chapters 3	
General	● The CEMP included in Appendix 3.1 of the EIAR will be implemented during the construction phase to safeguard the environment, site personnel, and nearby receptors, i.e. occupiers of residential and commercial properties, from site activities which may cause harm or nuisance. All construction activities, including construction traffic, will be managed through the site CEMP. ● Foundations will be constructed above the water table to avoid impacts on groundwater. ● A number of existing ground water monitoring wells will need to be relocated. New locations will be agreed with the EPA prior to construction but are expected to be located down gradient of the existing plume. ● The excavation depth over the plume will be minimised to avoid encountering groundwater and contaminated material. ● The requirements for excavation over the plume will be minimised. ● The following measures will also be implemented: – The majority of the civil works are planned to take place in summer months. Where heavy rainfall is forecast during the civil works, or if the civil works extend into the Winter season, the following measures will be put in place to restrict rainwater seepage into the ground: – Minimise extent and duration of exposed excavation surfaces. – Cover/protect excavations with use of water-tight membranes together with use of pump sumps or equivalent where required. – Excavations to be blinded with concrete immediately following excavation together with use of pump sumps or equivalent. – Surface water runoff will be treated in accordance with Ciria C750 Groundwater Control – Design and Practice. – Site services (fuel gas, water supply, electrical cables, control and instrumentation cables will be positioned above ground level on pipe and cable racks. – The main foundations supporting plant and equipment in the area of the plume will be designed so as to not extend below the ground water level. The level of the top of the foundations will extend above the current level of the existing site to minimise the depth of excavaction required. – A raft type / floating design of the main equipment foundations will avoid requirements for piling in the area of the plume. Excavation depth will be limited to 800mm in this area. The urface water drainage network will be designed to be above the ground water level. – Piling will be avoided in the area of the plume. ● Where piling is required outside the area of the plume, it will be undertaken in accordance with the parameters assessed in the EIAR and in the NIS and in the CEMP. A Source-Pathway-Receptor hazard risk assessment will be undertaken in consideration of the extensive monitoring regime present on site. The pile type will be selected and installed by a specialist contractor and be considerate of current guidance such as Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention published by the published by the UK Environment Agency National Groundwater and Contaminated Land Centre Report No. NC/99/73. The following will be incorporated into the detailed design: – Low vibration piling techniques. – Piling techniques which avoid the creation of preferential pathways. – Piling techniques which avoid pushing contaminated soil into uncontaminated soil. ● On completion of construction, the site will comprise paved surfaces of similar area to existing, laid to falls . Surface rainwater will be collected at low points by a series of gulleys or equivalent and be conveyed by a network of underground drainage pipes laid to shallow falls in accordance with Specification for Road Works

Reference	Mitigation and / or Monitoring Measure
	Series 500 - Drainage and Service Ducts, CC-SPW-00500 March 2015, Transport Infrastructure Ireland, connecting into the existing site main drainage infrastructure., connecting into the existing site main drainage infrastructure. • The Contractor will comply with the Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites and with the conditions detailed in the existing IE licence. • Excavated soil, and piling arisings if any, will be tested on site prior to disposal off site or reuse on site. • Excavation will be supervised by a qualified and experienced hydrogeologist/soil contamination expert and the Environmental Clerk of Works (EnCoW) throughout the period of such works. • Existing ground water monitoring/treatment wells that may be affected by the works will be identified and amendments to the monitoring well network will be agreed with the EPA prior to commencement of works.
Chapter 6 Population and Human Health	
6.1	The appointed contractors (in collaboration with ESB) will be required to maintain close liaison with local community representatives and statutory consultees throughout the construction period. This is likely to include circulation of information about ongoing activities; particularly those that could potentially cause disturbance, including due to traffic. A telephone number will be provided and persons with appropriate authority to respond to calls and resolve or escalate any problems arising will be available.
Chapter 8 Air Quality and Climate	
8.1	• Communication and Site Management – Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary – Display the head or regional office contact information – It is recommended that community engagement be undertaken before works commence on site explaining the nature and duration of the works – Record all dust and air quality complaints, identify causes and take appropriate measures to reduce emissions in a timely manner and record the measures taken – Make a complaint log available to the planning authority, when requested – Record any exceptional incidents that cause dust and or air emissions, either on or off site, and the action taken to resolve the situation in the log book
8.2	• Monitoring – Carry out regular site inspections, record inspection results and make an inspection log available to the planning authority, when requested – Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions
8.3	• Preparing and maintaining the site – Plan site layout so that machinery and dust causing activities are located away from receptors as far as possible – Erect solid screens or barriers around dusty activities or the construction site boundary that are at least as high as any stockpiles – Avoid site runoff of water or mud – Keep site fencing, barriers and scaffolding clean using wet methods – Remove materials that have a potential to produce dust from site as soon as possible unless being re-used on site; if they are being reused on site, cover as described below – Cover seed or fence stockpiles to prevent wind whipping

Reference	Mitigation and / or Monitoring Measure
	– Ensure all vehicles switch off engines when stationary – no idling vehicles – Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment, where practicable
8.4	• Operations – Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction – Ensure an adequate water supply on the site for effective dust/ particulate matter suppression/ mitigation using non-potable water, where possible and appropriate – Use enclosed chutes and conveyors and covered skips – Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever available – Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods – No bonfires and burning of waste materials
8.5	• Measures specific to demolition – Ensure effective water suppression is used during demolition operations – Avoid explosive blasting, using appropriate manual or mechanical alternatives – Bag and remove any biological debris or damp down such material before demolition
8.6	• Measures specific to construction – Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process in which case ensure that appropriate additional controls measures are in place.
8.7	• Measures specific to trackout; – Avoid dry sweeping of large areas – Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport – Record all inspections of haul routes
8.8	For the operational scenarios associated with the proposed development no mitigation measures in addition to those already inherent to the design of the proposed development are required. It should be noted that the proposed development will be licensed by the EPA under the industrial emissions licensing process. The licence will state the limits for atmospheric emissions that the proposed development will be required to comply with. In relation to operational impacts on climate change, regular maintenance checks to ensure that the gas turbines are operating according to calculated efficiency rates and best practice control measures will be implemented to mitigate against GHG emissions exceeding the intensity assessed.
Chapter 9 Land, Soils and Hydrogeology	
9.1	• All work will be carried out having regard to international and national legislation, and best practice guidance, including but not limited to guidance on preventing pollution from construction sites and pollution prevention guidance. • The Construction Resource Waste Management Plan (CRWMP; part of the CEMP) will include identification and appropriate management and disposal of waste materials generated during the works.

Reference	Mitigation and / or Monitoring Measure
	• North Wall Generating Station (including the proposed development) will continue to comply with the conditions pertaining to Industrial Emissions Licence (P0579) from the Environmental Protection Agency. • The only discharge to the ground during the operational phase of the proposed development will be uncontaminated stormwater (rainfall) run-off from the building roofs. All stormwater will be discharged to the surface water drainage system which connects to the Dublin Port drainage network on Alexandra Road which discharges to the Tolka Estuary to the north of the site (IEL monitoring point SW3) and to the River Liffey Estuary to the south of the site (IEL Monitoring point SW4). • The only effluent discharging to the foul sewer will be from the toilets, and the emissions to sewer will comply with IEL Licence Condition 7 (emissions to sewer). • Existing groundwater monitoring/treatment wells that may be affected by the works will be identified and amendments to the monitoring well network will be agreed with the EPA prior to commencement of works. • All works in the area of the oil plume will be carried out within the parameters assessed in the EIAR and will be supervised by an appropriately experienced and qualified EnCoW. • Piling will be avoided in the area of the plume as a raft type/floating design of the main equipment foundations will be used. • To reduce the risk of contamination arising as a result of spills or leakages, measures including, but not limited to, the following will be employed. – All collected waste will be managed in accordance with the Waste Management Act 1996, and associated Regulations; – Fuels, chemicals, liquid and solid waste will be stored on impermeable surfaces; – Refuelling of plant, equipment and vehicles will be carried out on impermeable surfaces; – All tanks and drums will be bunded in accordance with established best practice guidelines; and – Established best practices including preventative maintenance, routine monitoring and reporting of tanks and equipment integrity, as directed under the industrial emissions licensing process, will minimise the likelihood of leaks/spills occurring and ensure that any leaks are quickly detected and controlled.
Chapter 10 Surface Water, including Flood Risk	
10.1	• A full-time on-site Environmental Clerk of Works (EnCoW) will be appointed prior to commencement of works. • Where works on other projects within the same ZoI occur in parallel appropriate mitigation measures, within the parameters assessed in the EIAR (including the scheduling of works and regular liaison meetings between project teams) will be implemented to ensure that plans are co-ordinated, and impacts are minimised. • All pollution control measures will be designed, installed, and maintained in accordance with CIRIA guidance for 'Environmental Good Practice on Site' (C741) and 'Control of water pollution from linear construction projects. Technical guidance' (C648) and the IEL. • In order to reduce the risk of contamination arising as a result of spills or leakages, measures including, but not limited to, the following will be employed. – All collected waste will be managed in accordance with the Waste Management Act 1996, and associated Regulations: – Fuels, chemicals, liquid and solid waste will be stored on impermeable surfaces; – Refuelling of plant, equipment and vehicles will be carried out on impermeable surfaces; – All tanks and drums will be bunded in accordance with established best practice guidelines; and – Spill kits will be provided at all compound locations and carried by all crews during underground cable installation works.
10.2	During the operational phase the proposed development will continue to operate in accordance with the current limits for wastewater discharge regulated by the EPA under the IE licencing regime. The existing water quality monitoring programme will continue for surface water run-off. The parameters, thresholds and frequency, as set by the EPA, will be complied with.

Reference	Mitigation and / or Monitoring Measure
Chapter 11 Biodiversity	
10.1	• The Contractor's Environmental Clerk of Works (EnCoW) will have suitable environmental qualifications and the necessary experience and knowledge appropriate to the role. The EnCoW will be delegated sufficient powers under the construction contract to instruct the Contractor to stop works and to direct the carrying out of emergency mitigation / clean-up operations. The EnCoW will also manage consultation with key stakeholders as appropriate. The EnCoW will be responsible for carrying out regular monitoring of the Contractor's CEMP and will report monitoring findings in writing to ESB on a regular basis (at least weekly, but immediately in the case of incidents or accidents).
10.2	• In accordance with Section 40 of the Wildlife Acts, if required, the removal of the ornamental shrubs, which may be used as nesting sites by breeding birds, will be cleared outside of the birds nesting season (1st March to 31st August inclusive). • During the construction works, the appointed Contractor, in order to comply with Regulations 49 and 50 of the European Communities (Birds and Natural Habitat) Regulations (2011), will ensure biosecurity measures are implemented throughout the construction phase to ensure that the introduction and translocation of invasive species are prevented.
10.3	• Good site practice as per the *CIRIA C741 Environmental good practice on site guide (fourth edition)* will be implemented during the construction phase at all times. • All construction works will be carried out in accordance with a Construction Environmental Management Plan (CEMP) as described in Chapter 3: Description of the Development which will define measures to ensure that any contaminants resulting from the removal, dismantling, excavation, or construction will not enter the surface water. • All pollution control measures will be designed, installed, and maintained in accordance with CIRIA guidance for 'Environmental Good Practice on Site' (C741) and 'Control of water pollution from construction sites. Guidance for Consultants and Contractors' (C532). 'Control of water pollution from linear construction projects. Technical guidance' (C648) and the IEL. • The Contractor will be responsible for the construction of the equipment foundations, including the excavation and appropriate disposal of excavated material as well as the construction of the main equipment raft foundations and any piled foundations needed. The Main Contractor will be responsible for the management of excavated material and the safe disposal of this material to a suitably licenced waste disposal facility. In-situ concrete casting will be fully controlled to ensure that cement bound materials do not present any pollution risk. • Trucks, mixers, and concrete pumps that have contained concrete will be washed out in a designated impermeable area to prevent pollution. Washout water will be stored and disposed of in line with the existing industrial emissions licence. • In order to reduce the risk of contamination arising as a result of spills or leakages, measures including, but not limited to, the following will be employed. – All collected waste will be managed in accordance with the Waste Management Act 1996, and associated Regulations: – Fuels, chemicals, liquid and solid waste will be stored on impermeable surfaces; – Refuelling of plant, equipment and vehicles will be carried out on impermeable surfaces; – All tanks and drums will be bunded in accordance with established best practice guidelines; and Spill kits will be provided at all compound locations and carried by all crews during underground cable installation works.
10.4	• The proposed development will operate in accordance with the limits for wastewater discharge determined by the EPA under the IEL. • The existing water quality monitoring programme will continue for surface water run-off. The parameters, thresholds and frequency are set by the EPA under the Industrial Emissions licensing regime and will be revised. Waste materials generated on site will be domestic such as paper and food waste from the personnel on site, non-hazardous waste such as clean metal and wood waste from delivery pallets and hazardous waste from waste oils and greases generated from the operation of the plant will be appropriately segregated and will be collected by suitably licenced waste contractors for disposal and in accordance with the existing IE licence.

Reference	Mitigation and / or Monitoring Measure
Chapter 12 Archaeology and Cultural Heritage	
12.1	• Archaeological monitoring will be carried out within the proposed development area for all sub-surface groundworks during the construction phase. • Archaeological monitoring will be carried out by a suitably qualified, competent archaeologist under license and in accordance with the provisions of the National Monuments Acts 1930-2004. • If significant archaeological material is encountered during the course of archaeological monitoring, then resolution of any such significant material will be determined in consultation with the National Monuments Service (DHLGH) and the Dublin City Archaeologist. • Where possible, every reasonable effort will be made to preserve in situ or reduce the effect on any identified archaeological material. Where preservation in situ cannot be achieved, either in whole or in part, then a programme of full archaeological excavation will be implemented to ensure the preservation by record of the portion of the site that will be directly effected upon. This work will be carried out by a suitably qualified archaeologist under license and in accordance with the provisions of the National Monuments Acts 1930-2004.
Chapter 13 Roads and Traffic	
13.1	• A traffic control person will be used to control traffic to and from the site, as required. • Sufficient and clearly displayed signage will be provided on both the western and eastern approaches to the site to provide warning to port traffic of the potential construction traffic entering and exiting the site. • Wheel cleaning facilities will be provided on site. • ESB will liaise with Dublin Port and Iarnród Eireann in relation to traffic movements e to ensure they do not coincide with the movement of rail freight on Alexandra Road. • HGV traffic will access the site using a pre-planned route entering and departing Dublin Port via Promenade Road.