

Comhairle Chontae Atha Cliath Theas

PR/0455/22

Record of Executive Business and Chief Executive's Order

Reg. Reference: SD21A/0167

Application Date: 25-Jun-2021

Submission Type: Significant
Additional
Information

Registration Date: 11-Mar-2022

Correspondence Name and Address:

TOBIN Consulting Engineers Block 10-4,
Blanchardstown Corporate Park, Dublin, D15 X98N

Proposed Development:

Construction of a gas fired power plant with an electrical output of up to 125MW with associated balance of plant, equipment and buildings including; an Engine Hall building with a height of 18.9m, comprising 6 gas engines and ancillary infrastructure; an Electrical Annex Building with a height of 18.7m; a Workshop building with a height of 5.1m; a Tank Farm building with a height of 5.68m; a Security hut with a height of 3.27m; an Exhaust Stack with a height of 31.8m; a Gas AGI including a kiosk with height of 3.3m; Radiator Coolers with a height of 8.46m; 2 electrical transformers with a height of 4.98m; Tanks including 2 x Diesel Oil Storage Tanks (volume of 2500m³ combined); SCR Urea Tank (26m³); Lube Oil Storage Tank (26m³); Lube Oil Maintenance Tank (26m³); Pilot Oil Tank (26m³); Fire Water Storage Tank (1000m³); Effluent Collecting Tank (26m³); Underground Surface Water Attenuation Tank (490m³); 2 new access onto the existing private road network with Profile Park; 12 parking spaces, footpaths, landscaping; fencing and all other associated site development plant and equipment and other works including surface water and foul wastewater drainage.

Location:

Profile Park, Baldonnel, Dublin 22

Applicant Name:

Shane Minehane, Greener Ideas Limited

Application Type:

Permission

Description of Site and Surroundings:

Site Area

Stated as 1.9 hectares

Site visited

20.07.2021

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Site Description

The site is located with Profile Park. The surrounding area is generally developed for employment, although Profile Park itself is largely undeveloped. The site is predominantly flat. Baldonnell Stream runs along part of the site boundary on the northern side.

Proposal

The application consists of the following proposal:

- Construction of a gas fired power plant with an electrical output of up to 125MW with associated balance of plant, equipment and buildings including;
 - an **Engine Hall** building with a height of 18.9m, comprising 6 gas engines and ancillary infrastructure;
 - an **Electrical Annex Building** with a height of 18.7m;
 - a **Workshop** building with a height of 5.1m;
 - a **Tank Farm** building with a height of 5.68m;
 - a **Security hut** with a height of 3.27m;
 - an **Exhaust Stack** with a height of **31.8m**;
 - a **Gas AGI** including a kiosk with height of 3.3m;
 - **Radiator Coolers** with a height of 8.46m;
 - 2 electrical **transformers** with a height of 4.98m;
 - **Tanks** including 2 x Diesel Oil Storage Tanks (volume of 2500m³ combined);
 - SCR Urea Tank (26m³);
 - Lube Oil Storage Tank (26m³);
 - Lube Oil Maintenance Tank (26m³);
 - Pilot Oil Tank (26m³);
 - Fire Water Storage Tank (1000m³);
 - Effluent Collecting Tank (26m³);
 - Underground Surface Water Attenuation Tank (490m³);
 - **2 new access** onto the existing private road network with Profile Park;
 - **12 parking spaces**, footpaths, landscaping;
 - fencing and all other associated site development plant and equipment and other works including surface water and foul wastewater drainage.

Zoning

The site is subject to zoning objective EE – ‘To provide for enterprise and employment related uses.’

SEA: Indicates overlap with SFRA B. The Site is located within the Department of Defence Inner Zone.

Consultations

Pollution Control:

No report received at time of writing.

Water Services:

Request Additional Information.

Roads:

Request Additional Information.

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Heritage:	No report received at time of writing.
Parks:	Additional information requested.
EHO:	No objection, subject to conditions.
TII:	No observations.
EMRA:	No report received at time of writing.
Irish Water:	Request Additional Information.
Inland Fisheries:	No report received at time of writing.
EPA:	Comments received.
DHLG&H:	No objections, subject to conditions
Comm. for Regulation of Utilities:	No report received at time of writing.
Department of Defence:	No objections, subject to conditions.

Submissions/Observations /Representations

None.

Relevant Planning History

SD07A/0665 Block B (2,130 sqm) is a double height single storey building (including 534 sqm at mezzanine level) comprises of 9 no. units for trade park use; Block C (2,130 sqm) is a double height single storey building (including 534 sqm at mezzanine level) comprises of 9 no. units for trade park use; Block D (1,519 sqm) is a double height single storey unit for trade park use with single storey element to North elevation; Block E (3,195 sqm) is a double height single storey building (including 795 sqm at mezzanine level) and comprises of 15 no. units for trade park use; Block F (1,519 sqm) is a double height single storey unit for trade park use with single storey element to North elevation. The development also includes surface water drainage, 3 no. ESB substations, foul drainage and water supply infrastructure, yard areas, associated landscaping and all ancillary works, on a site of approx. 3.54 hectares. Access to the site will be provided from the Northern boundary off the existing roundabout to Kilcarbery Business Park, via the internal road network permitted under Reg. Ref. SD06A/0568. **Permission Granted.**

SD06A/0568 Provision of roads and services infrastructure to facilitate the future development of a business park, to be known as 'Profile Park' on these lands. The development includes the provision of 1,675 metres of internal distributor roads consisting of 267 metres to dual carriageway standard (at the main entrance) with a further 1,408 metres to single carriageway standard and one internal roundabout. The development also includes surface water drainage, foul drainage and water supply infrastructure, associated landscaping and all ancillary works, on a site of 39.84 hectares. Access to the site will be provided at the northern boundary off the existing roundabout to Kilcarbery Business Park. This application is accompanied by an Environmental Impact Statement. **Permission Granted.**

SD06A/0568/EP Provision of roads and services infrastructure to facilitate the future development of a business park, to be known as 'Profile Park' on these lands. The development includes the provision of 1,675 metres of internal distributor roads consisting of 267 metres to dual carriageway standard (at the main entrance) with a further 1,408 metres to single carriageway standard and one

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internal roundabout. The development also includes surface water drainage, foul drainage and water supply infrastructure, associated landscaping and all ancillary works, on a site of 39.84 hectares. Access to the site will be provided at the northern boundary off the existing roundabout to Kilcarbery Business Park. This application is accompanied by an Environmental Impact Statement.

Grant Extension of Duration

Relevant Enforcement History

None recorded for subject site.

Pre-Planning Consultation

PP032/21 The gas engine power plant will generate electricity which may export to the to the national electricity grid and facilitate fixed MIC requirement for data centres. It will have a thermal efficiency of approximately 49.4%. This type of power plant is designed to run when electricity demand is higher than average, and will regularise energy provision in the electricity grid in regard to increased use of renewable energy technologies, such as solar and wind power. Natural gas, supplied from the Gas Networks Ireland national grid, will be the primary fuel source for the plant. In order to comply with Commission for Regulation for Utilities (CRU) requirements, low sulphur diesel oil will be stored as a backup fuel. Up to 72 hours (3 days) maximum running capacity of diesel oil is required to be stored on site (approximately 3000m³) in two bunded tanks. It should be noted that operation on the backup fuel is only anticipated to occur for up to 18 hours per annum for testing purposes in accordance with EirGrid's (the Transmission System Operator) Grid Code which establishes the rules governing the electricity transmission system and the procedures for governing the actions of all transmission system users. Outside of these hours, it is expected that operation on diesel oil would only occur in very rare circumstances such as an interruption to gas supplies or other electricity grid system emergencies. The electrical generator will connect to a transformer where the voltage will be increased to 110 kV. Electrical power will then be exported from the plant's main transformer to an offsite substation. The power plant will comprise the following main components: Site Entrance; Engine Hall comprising up to 6 no. gas engines and 1 no. exhaust stack cluster; Electrical Annex Building; Workshop Building; Radiator Coolers; 110 kV Electrical Transformer(s); Gas AGI; Tank Farm comprising:

2 x Fuel Oil Storage Tank; SCR reagent Tank; Lube Oil Storage Tank; Lube Oil Maintenance Tank; Sludge discharge pump module; Pilot Oil Tank; Water Supply; Fire Water Storage Tank; Cooling Water Run-Down Tank; Surface Water Attenuation Tank; Fencing; Car Park; landscape planting around perimeter of site.

Main planning points raised:

- 'public service' is permitted in principle,
- Visual impact – significant concerns over 35m stack. Site is at a landmark location and development needs to be carefully considered.
- Concern that the proposal is overdevelopment. Innovative ways of introducing GI should be considered.
- SEVESO needs to be considered.

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- Energy analysis is required – looking at district heating etc. Need to justify the proposal in terms of national, regional and local policy on energy and climate change. (example of AI request provided as appendix). Applicant should take SDCC climate change action plan into consideration.
- Residential amenity also needs to be considered – applicant should liaise with EHO
- Concern over impact on Baldonnell Aerodrome. Noted that the applicant is discussing with DoD.
- Design Statement required under Section 11.3.1 of the CDP.

Matters also raised by roads, parks and water services.

Planning Policy and Guidance

Relevant Policy in South Dublin County Council Development Plan (2016-2022)

1 Introduction & Core Strategy

(CS) Policy 8 National Climate Change Strategy

4 Economic Development & Tourism

4.2.0 Strategic Policy for Employment

(ET) Policy 1 Overarching

(ET) Policy 3 Enterprise and Employment (EE)

6 Transport and Mobility

(TM) Policy 1 Overarching

(TM) Policy 3 Walking and Cycling

(TM) Policy 4 Strategic Road and Street Network

(TM) Policy 5 Traffic and Transport Management

(TM) Policy 7 Car Parking

7 Infrastructure & Environmental Quality

(IE) Policy 1 Water & Wastewater

(IE) Policy 2 Surface Water & Groundwater

(IE) Policy 3 Flood Risk

(IE) Policy 5 Waste Management

(IE) Policy 7 Environmental Quality

(IE) Policy 8 Casement Aerodrome

8 Green Infrastructure

(G) Policy 1 Overarching

(G) Policy 2 Green Infrastructure Network

(G) Policy 3 Watercourse Network

(G) Policy 5 Sustainable Urban Drainage Systems

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9 Heritage, Conservation & Landscapes

- (HCL) Policy 1 Overarching
- (HCL) Policy 2 Archaeological Heritage
- (HCL) Policy 6 Features of Interest
- (HCL) Policy 8 Views and Prospects
- (HCL) Policy 12 Natura 2000 Sites
- (HCL) Policy 13 Natural Heritage Areas
- (HCL) Policy 15 Non-Designated Areas

10 Energy

- (E) Policy 1 Responding to European and National Energy Policy & Legislation
- (E) Policy 2 South Dublin Spatial Energy Demand Analysis
- (E) Policy 4 Energy Performance in New Buildings
- (E) Policy 5 Waste Heat Recovery & Utilisation
- (E) Policy 6 Low Carbon District Heating Networks

11 Implementation

- 11.1.0 Land use Zoning Objectives
- 11.2.0 Place Making and Urban Design
 - 11.2.1 Design Statements
 - 11.2.5 Enterprise and Employment Areas
 - 11.2.7 Building Height
 - 11.2.8 Signage – Advertising, Corporate and Public Information
- 11.3.0 Land Uses
- 11.4.0 Transport and Mobility
 - 11.4.1 Bicycle Parking Standards
 - 11.4.2 Car Parking Standards
 - 11.4.3 Car Parking for Electric Vehicles
 - 11.4.4 Car Parking Design and Layout
 - 11.4.5 Traffic and Transport Assessments
 - 11.4.6 Travel Plans
- 11.5.1 Archaeological Heritage
- 11.5.5 Landscape
- 11.6.1 Water Management
- 11.6.3 Environmental Hazard Management
- 11.6.5 Waste Management
- 11.7.0 Energy
 - 11.7.3 Low Carbon District Heating Networks
 - 11.7.6 Waste Heat Recovery & Utilisation
- 11.8.0 Environmental Assessment
 - 11.8.1 Environmental Impact Assessment
 - 11.8.2 Appropriate Assessment
- 11.9.0 Development Management Thresholds

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South Dublin County Council Climate Change Action Plan 2019-2024

National and Regional Policy

Project Ireland 2040 National Planning Framework, Government of Ireland, 2018.

Regional Spatial & Economic Strategy 2019-2031, Eastern & Midland Regional Assembly (2019)

Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, (2009)

Smarter Travel – A Sustainable Transport Future. A New Transport Policy for Ireland 2009 – 2020, Department of Transport, (2009)

Assessment

The main areas for consideration are the following:

- Zoning and Policy
- Residential Amenity
- Design and Visual Amenity
- Parking, Transport and Access
- Services and Drainage
- Archaeology
- Landscaping
- Energy Analysis
- Bats
- Aviation safety
- EPA
- Environmental Impact Assessment
- Appropriate Assessment

Zoning and Policy

The application site is located within an area that is zoned 'Enterprise and Employment' and is subject to zoning objective 'EE - To provide for enterprise and employment related uses.' In terms of the use class proposed, a power plant is considered to fall under 'Public Services' as defined in Schedule 5: Definition of Use Classes & Zoning Matrix Table of the County Development Plan (CDP) which is permitted in principle within lands zoned EE.

In terms of policy at a national level, National Strategic Outcome 8 of the NPF seeks to transition to a low carbon and climate resilient society. Whilst at a regional level Chapter 7 of the Eastern & Midland Regional Assembly RSES seeks to decarbonise the energy sector with a shift from its reliance on using fossil fuels and natural gas as its main energy source to a more diverse range of low and zero-carbon sources.

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In terms of local policy, the SDCC Climate Change Action Plan (2019-2024) seeks to respond to and provide mitigation measures with regard to climate change within the county with a key focus on improving energy efficiency, reduce emissions, make Dublin a climate resilient region and engage and inform citizens. The Action Plan has been developed with consideration to the Irish government's Climate Action and Low Carbon Development Act 2015, National Mitigation Plan (NMP), National Adaptation Framework (NAF), and National Planning Framework (NPF). Chapter 10 – Energy of the County Development Plan (2016-2022) is relevant and states that 'South Dublin County should aspire to becoming as carbon neutral as possible and make every effort to increase energy efficiency and unlock renewable energy potential.' Chapter 10 of the CDP is clear in its focus on moving away from carbon-based fossil fuels including gas and the use of alternative non-polluting, low carbon and renewable energy sources such as wind, solar, hydro, and geothermal.

The proposal would see the construction of a gas power plant which, based on the potential level of activity associated with this type of use and the overall size proposed, is considered to be a significant piece of infrastructure that would require adequate justification at a county, regional and national level in order to be considered acceptable.

Within the EIAR, the Section 5 examines alternatives and Section 4 looks at the need for the development. The applicant sets out the European context, as well as the national context setting out that the NPF provides a framework for the development. The NPF contains the following relevant objectives:

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

In addition to the above objectives, it should be noted that National Strategic outcome 6 of the NPF relates to the creations of "A Strong Economy Supported by Enterprise, Innovation and Skills". This strategic outcome is underpinned by a range of objectives relating to job creation and the fostering of enterprise and innovation., including:

- Promotion of Ireland as a sustainable international destination for ICT infrastructure such as data centres and associated economic activities.

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The applicant cites a number of other policy documents, such as the National Development Plan, Government White Paper – Ireland's Transition to a Low Carbon Energy future 2015-2030 and Climate Action Plan 2019, all of which seek to reduce GHG emissions.

The applicant discusses the Delivering a Secure, Sustainable Electricity System 'DS3 programme'. The applicant states "*The provision of the proposed power plant in Profile Park will help EirGrid in managing the integration of renewable energy generators into the electricity grid by providing quick response capabilities in two ways. Firstly, the plant will have the capability of providing DS3 services that EirGrid will require to maintain system stability. Secondly, when requested by the grid operator, the plant will have the capability to start up and reach full load quickly, so assisting in providing electricity, during periods of high demand. The provision of these capabilities will mean that Ireland can continue to invest in renewable sources of power*".

It is clear that, whilst the proposal is not for renewable energy itself, it would support the renewable energy programme.

The applicant details Eirgrid Strategy 2020-2025, which is a 5-year plan outlining a strategic response to the transition of electricity generation to a sustainable low-carbon future. The primary goal of the strategy is to support the continued decarbonisation of electricity generation within Ireland in response to the climate crisis. The DS3 programme facilitates this. The All-Island Generation Capacity Statement 2019-2028 - This statement was published by EirGrid and SONI (System Operator for Northern Ireland) outlining the expected electricity demand and the level of generation capacity that will be required on island over the next ten years – gas is shown as the main contributor to the existing and future all- Ireland de-rated dispatchable generation and will be an important source of energy generation following the phasing out of coal burning power plants throughout the island.

National policy regarding data centres is also cited.

The Planning Authority agree that the national need for the proposed development has been adequately addressed by the applicant.

In terms of the regional demand for the proposal, the Applicant cites the East Coast Generation Opportunity Assessment (Eirgrid, Feb 2019). This presents analysis that EirGrid has undertaken to identify the opportunities for connecting new power generation sources in the East coast region of Ireland from a grid capacity perspective. The results indicated that locations close to the Dublin load centre and/or with multiple 220 kV connections into the Dublin area have the best opportunities for new generation capacity.

Eirgrids Data Centre Offer Policy Information Note (2020) identifies the greater Dublin region as a capacity constrained area, especially with regard to satisfying the power needs of new data centres. EirGrid are promoting the development of dual fuel power generation in the greater Dublin area through the capacity market auction. EirGrid will provide firm capacity to a data centre where it

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provides new on-site dispatchable generation. The applicant states that this sets out the need for the facility at Profile Park.

In terms of Alternative Locations, the applicant cites the above and also states “*Another critical location consideration is proximity to electricity grid and gas transmission networks*”.

The applicant also sets out the following considerations.

1. *Location close to electrical and gas network systems;*

- *Profile Park is located immediately adjacent to the Castlebaggot 220 / 110 kV Substation and also within 1km of Gas Networks Ireland gas network near the Nangor Road.*

2. *Location close to data centre developments on appropriately zoned lands.*

- *Profile Park, and its neighbouring lands, are also home to a number of existing data centre tenants including Google, Microsoft, Digital Realty Trust, Telecity and others. Much of the lands are zoned by South Dublin County Council to ‘To provide for enterprise and employment related uses’ which indicated that there is potential for future data centre development in the future.*

Overall, although the application site is located within EE lands within which a power plant is permitted in principle, it is considered that the applicant has provided significant detail regarding the national and regional need for the facility and has also provided justification for the need of such a facility within Dublin and specifically within Profile Park.

Connection to Grid

In terms of connection to the grid, the applicant has set out the following details (Section 2.4 of the EIAR):

“The proposed electrical connection considered in this EIAR is an underground 110 kV cable. Electrical power will be exported from the power plant’s main transformers to the existing Castlebaggot 220 / 110 kV Substation which is operated by EirGrid or to a new proposed 110kV substation in Profile Park. No confirmed details of this potential new substation were available for consideration as part of this EIAR.

Natural gas will be delivered to the power plant via a new below ground pipeline from the existing gas network. It is envisaged following on from consultations with Gas Networks Ireland (GNI) Gas Networks Ireland that this connection will be via a new spur from the existing national gas transmission network which has an existing Above Ground Installation (AGI) AGI compound close to the Nangor Road approximately 1km to the north of the proposed power plant.

It should be noted that planning permission is not sought for these connections as part of the power plant application to South Dublin County”.

The applicant states that the proposed electrical connection considered in the EIAR is the underground 110 kV cable from the plant’s main transformers to the existing Castlebaggot 220 / 110 kV Substation which is operated by EirGrid or to a new proposed 110 kV substation in Profile Park. Planning permission is not sought for these connections as part of the current application.

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Either Greener Ideas Limited or EirGrid will be responsible in the future for securing the necessary planning permission for these electrical connections. Similarly, in the event that Greener Ideas Limited and a data centre operator agree for a private power supply to be provided then this would also be subject to its own separate consenting process.

Given the above, should planning permission be granted, a condition is recommended seeking details of connection to the grid, prior to the commencement of development.

Residential Amenity

The EHO has stated:

“The main concern from the Environmental Health Department is with regard to the potential impact of this development in respect of operational noise.

The acoustic assessment undertaken highlights a proposed increase in the existing background noise across a total of 6 of the receivers with respect to the long-term operational noise. For two of these receivers the proposed increase is 3dB and is described as “slight” within the report.

The proposed increases in noise levels do not comply with South Dublin County Council's standard noise criteria which states

Noise due to the normal operation of the proposed development, expressed as Laeq over 15 minutes at the façade of a noise sensitive location, shall not exceed the daytime background level by more than 10 dB(A) and shall not exceed the background level for evening and night time. Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level.

The proposed increases of 3dB are generally regarded as being “notable” within the acoustic field and therefore concern is raised by the Environmental Health Department regarding the long-term noise impact on the nearby residential receivers. It must also be noted that the increases to background noise which are proposed within this report are during the night time period when people are sleeping. As a result there is potential for these proposed increases to give rise to complaints.

It is noted that profile park is the subject of other planning developments of similar nature. It is therefore important to ensure that incremental noise increases to the background noise level do not occur as this can lead to “background creep” occurring.

The term “Background creep” refers to the process by which noise levels progressively become higher over time. This can occur in quite areas that have been developed for industrial use whereby there is a slow progression of development in the area which leads to an accumulation of noise sources.

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It should be noted that whilst the acoustic assessment advises that it will comply with the "identified" criteria, it is the role of the Environmental Health Department to review the potential impact of the proposed application in consideration with the existing environment.

At an overall Planning level it is also important to ensure that the integration of large commercial developments into relatively quiet areas is done so without increasing the existing night time noise levels".

It is noted that at the pre-planning stage, the applicant was requested to liaise with the EHO. It is not apparent that this has happened. The EHO has requested **additional information** that the applicant submit an Acoustic Verification report to the Environmental Health Department of South Dublin County Council. The report must confirm whether the development is capable of complying with Council's standard operational noise criteria.

Design and Visual Amenity

Design

Section 11.2.1 Design Statements of the CDP requires developments over 1,000sq.m to be accompanied by a Design Statement consisting of a site analysis, a concept plan and/or masterplan, a statement based on the design criteria listed in Section 11.2.0 and/or tables 11.17 and 11.18 and a statement or Quality Audit addressing street design as outlined within the Design Manual for Urban Roads and Streets.

The applicant has submitted a design statement. This sets out:

- details of the proposed development,
- details of the existing site
 - o Description
 - o Location - the site of the proposed power plant is located in Profile Park, Dublin 22. This is a 100 acre (40.5 Ha) fully enclosed, private business park which has been developed to the highest of standards. It is easily accessible from the major arterial roads in the city including the M50, M7 and M4, and is served by excellent public transport links. Within Profile Park the proposed power plant will be located on greenfield lands immediately adjacent to the existing Digital Realty data centre. Land zoned 'EE'. Profile Park is connected directly onto the Dublin metropolitan fibre network called the T50. The T50 is a multi-duct fibre carrying system which extends over 44 km and provides connectivity to 24 business parks and from these into the global networks through. Immediately adjacent to Profile Park is the Castlebaggot 110 / 220 kV substation.
 - o Context - The immediate area is predominantly commercial / industrial in nature
- Basis of design
 - o Design considerations:
 - Presence of site features and constraints such as Baldonnell Stream;

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- Proximity to neighbouring sites such as Digital Realty Trust;
- Potential environmental impacts with respect to noise, air and visual;
- Integration into the surrounding industrial landscape
- Design approach
 - Massing - The layout of the proposed power plant is arranged into zones, each area providing a unique function for the overall operation of the development. The principal building, the proposed Engine Hall, is located to the forefront of the site, with additional and ancillary infrastructure placed in the background. The tallest structure on site, the proposed exhaust stack is centrally located and set back from all adjacent buildings and existing public roads. The proposed tank farm is located along the southern boundary of the site, which adjoins the adjacent Digital Realty site
 - Materials - It is proposed that a high-quality cladding specification will be agreed with SDCC prior to the commencement of development
 - Integration - Enterprise and employment areas are characterised by a structure that is distinctly different to those of other urban areas. Most industrial estates are characterised by large functional buildings that are set back from the street, extensive areas of hard surfacing and security fences. A number of industrial estates, and in particular newer business parks, incorporate extensive areas of open space to create a more attractive parkland-like setting. The applicant has cited table 11.18 of the CDP but no assessment in terms of its objectives are provided.
The study area is located within the 'Newcastle Lowlands' Landscape Character Area. An LVIA has been undertaken. Mitigation has been embedded into the colour scheme of the proposed structures and also through a form of horizontal stratification of the proposed colour scheme. By adopting a tonal transition, from darker tones to lighter shades from the ground upwards, it will help diminish the perceived height of taller structures. A Landscape Mitigation Plan has also been prepared.
 - Accessibility - An accessibility statement will be prepared as part of the building design and will be in the application to South Dublin County Council for a Disability Access Certificate (DAC). Part M of the B of the Building Regulations will be observed in respect of the works proposed. Dispensation from Sections 1.1 (part) and 1.3 will be sought in respect of certain plant areas. Segregated cycle and pedestrian facilities are provided. Dropped kerbs at all crossing points and disabled parking provided.
 - Access and Parking Provision - The existing site access from one of the main arteries within Profile Park will be used, this is a T-junction and is located on the north western boundary of the site. Car parking proposed is:
 - 8 spaces for Staff;

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- 2 Un-abled user spaces.
- Provision for 2 no. electrical charging points
- Fire Safety - Part B of the Building Regulations will be observed in respect of the proposed power plant buildings, where relevant. The development will be carried out in compliance with a Fire Safety Certificate
- Building Services - Emergency lighting will be provided throughout the building. Lighting Plan will be undertaken during the detailed design of the power plant. Wastewater will be pumped to the existing foul sewer in Profile Park which is directly adjacent to the site. Irish Water has confirmed via its 'Pre-connections Enquiry' process that the above water wastewater volume can be facilitated through the existing network
- Sustainability - Part L of the building Regulations will be observed in respect of the works proposed. Additional measures also proposed.

As stated above, Paragraph 11.2.1 requires Design Statements to cover specific matters.

The relevant documents listed in Section 11.2.0 are:

- Sustainable Residential Development in Urban Areas, DECLG (2009) and the companion Urban Design Manual – A Best Practice Guide, DECLG (2009), establish a series of high level aims for successful and sustainable development in urban areas. The high level aims address issues such as quality of life, community facilities, placemaking, social integration, movement and accessibility, energy and environmental protection. The Urban Design Manual outlines 12 urban design criteria to be applied to residential development to ensure high standards of development.
- The Design Manual for Urban Roads and Streets, DTTS and DECLG (2013) provides guidance in relation to the design of urban roads and streets, encouraging an integrated design approach that views the street as a multi-functional space and focuses on the needs of all road users.
- The Green City Guidelines, UCD Urban Institute, Dun Laoghaire Rathdown County Council and Fingal County Council (2008) provide advice for the protection and enhancement of biodiversity in urban developments.

Table 11.17 of the County Development Plan sets out masterplan considerations in relation to access and movement, open space and landscape, land use and density, built form and phasing. It is noted that not all topics are relevant due to the nature of the use. Table 11.18 sets out Key Principles for Development within Enterprise and Employment Zones:

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KEY PRINCIPLES FOR DEVELOPMENT WITHIN ENTERPRISE AND EMPLOYMENT ZONES	
Access and Movement	Major links to and through a site are provided as identified within a local plan, Masterplan and/or as determined by a site analysis process.
	The street network is easy to navigate and a clear a hierarchy is applied, identifying the function of each street.
	Individual streets are designed in accordance with the requirements of the Design Manual for Urban Roads and Streets.
	Large areas of parking (in particular staff parking) are located to the rear of buildings and screened from the street. Smaller areas of parking can be located to the front of buildings provided they are well designed (including areas of planting) and do not result in excessive setbacks from the street
	The design and layout of new business parks should promote walking, cycling and the use of public transport, including adequate provision of cycle and pedestrian linkages
Access and Movement	Creation of an open space network with a hierarchy of spaces suited to a variety of functions and activities.
	Development within business parks maintain and promote a parkland-like setting with high quality landscaping.
	Important nature features of the site such as trees, hedgerows and watercourses are retained, integrated within the landscape plan and reinforced with the planting of native species.
	Natural buffer zones and defensive planting are used to define private space and the use of fencing to the front of buildings minimised. Where fences interface with the public domain they should be of a high quality and incorporate elements of landscaping (for screening).
Built Form and Corporate Identity	Building heights respond to the surrounding context with transitions provided where necessary and reinforce the urban structure with taller buildings located along key movement corridors, gateways and nodes.

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	Building heights respond to the surrounding context with transitions provided where necessary and reinforce the urban structure with taller buildings located along key movement corridors, gateways and nodes.
	The layout and design of buildings maximise frontages onto the public realm and enclose private external spaces (such as service yards and car parks) and storage areas behind them.
	Signage should be simple in design and designed to integrate with architectural feature and/or the landscape setting (see also Section 11.2.8 Advertising, Corporate Identification and Public Information Signs).

The design statement provided by the applicant is extensive and has covered a significant amount of information and the detail provided within it is welcomed. However, in order to fully assess the proposal, the Planning Authority requires the Design Statement to include an assessment in terms of Paragraph 11.2.0 and tables 11.17 and 11.18 of the CDP and modifications to address all requirements laid out in these sections. This matter should be addressed via **additional information**.

Visual Amenity

The site is currently greenfield and located behind a secure entrance to Profile Park. The surrounding lands are predominantly undeveloped. It is noted that the land surrounding the proposed development would likely be developed in the future, however, it is considered that the proposal should be considered on its current impact. The proposed development includes some tall features. It should be noted that, at the pre-planning meeting, the Planning Authority raised concerns regarding the height of some features, including the exhaust stacks. Concern was also raised regarding the overall level of development on the site and the impact that it would have on the natural environment and visual amenity of the area. It is apparent that the layout has changed since the preplanning stage. A green buffer now extends the north west, north east and east boundaries of the site, although it is apparent that the redline has expanded to include this area. This area is identified as being 'reserved for landscaping', which is welcomed. The area of parking provided is grasscrete, it is located on the edge of the site, on the north west boundary, inside the landscape buffer. There have been some amendments within the site, with some of buildings / other structure moved or reorientated. About half of the internal roads are hardstanding / tarmac and the other half are gravel surfaced.

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The proposed structures on site would have the following dimensions:

Gas engine hall: c. 17.5m high (13.1m to eaves). Total height including vents is 18.9m. The width of the main building is 31m and a further 9m of stairways etc is provided. The building would be 56m long.

Electrical Annex Building: Overall height of 18.7m (including vents). It would be 10m wide and 31.3m long;

Workshop: height of 5.1m (4m to eaves). Width would be 10.3m, length 30m

Tank Farm: height of 5.68m, (4.693m to eaves). Width 10m and length 10.74m

Security hut: Max height of 3.27m (monopitch roof). Length 3.2m, width 4.2m

Exhaust Stack with a maximum height of 31.8m. There would be 6 flues, grouped together at a central location within the site. They would be enclosed within a building up to a height of 26.8m. This would be 6m wide and 12m long.

Gas AGI: including a kiosk with height of 3.3m (2.87m to eaves), 4m wide and 13.2m long. The main gas AGI is a network of pipes.

Radiator Coolers: height of 8.46m, width 12m and length 61.56m

2 electrical transformers: height of 4.98m, total plinth area 4.02m x 6.25m

Tanks:

- 2 x Diesel Oil Storage Tanks (volume of 2500m³ combined);
- SCR Urea Tank (26m³);
- Lube Oil Storage Tank (26m³);
- Lube Oil Maintenance Tank (26m³);
- Pilot Oil Tank (26m³);
- Fire Water Storage Tank (1000m³);
- Effluent Collecting Tank (26m³);
- Underground Surface Water Attenuation Tank (490m³);

The applicant has undertaken a Landscape / Townscape and Visual impact Assessment as part of the EIAR. This has been prepared by Macro Works Ltd.

The applicant has submitted a book of photomontages, which details 8 viewpoints. These are discussed in turn below.

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VP1: This is taken from adjacent to the site, within Profile Park. The existing view indicates low profile employment in the background. The proposed indicates a bulky building, due to the proximity to the site. This is mitigated by the proposed landscape mitigation to some degree. Whilst the colour scheme is welcomed, the facade generally appears blank and is not broken up in any way. Tall structures (stack) are not visible from this view due to the close proximity.

VP2: This is taken from the south west, outside the boundary of the site. The existing view indicates some taller employment buildings, with lower profile buildings further in the distance. It is noted that no landscape mitigation is proposed and also noted that there will likely be further development in this view in the future. The proposed colour scheme is again welcomed, minimising the impact of the structures. However, the façade of the main building is again, blank and not broken up. The stack is significantly higher than the existing and proposed surrounding structures.

VP3: This is taken from the south east site boundary. View indicates light colour employment buildings to the front of the view with glazing. Other employment buildings are apparent in the distance. All structures are highly visible and bulky (due to the proximity). The proposed landscape mitigation softens this to some degree. Following mitigation, the main building, silos / tanks and stack are highly visible.

VP4: This is taken from New Nangor Road to the north. The greenfield nature of the site is apparent from the existing view – employment buildings are not prominent, and the mountains are visible in the background. The light colour of the buildings is welcomed. However, the façade again appears blank and the stack is highly visible, significantly higher than other structures.

VP5: This is taken from the entrance to Grange Castle South. Employment development is highly prominent in the existing view. Following the development, the stack would be the most prominent feature still visible – this further indicates the significant bulk and height of the structure given the distance of the view.

VP6: This is taken from the south west (further away from VP2) from Baldonnell Road. The existing indicates some employment, otherwise the view is generally rural / undeveloped. The proposed development would not have a significant impact on this view.

VP7: This is also taken from Baldonnell Road, but directly south of the site. The existing view indicates both agricultural buildings and employment buildings. Following development and with mitigation the stack would be prominent.

VP8: This is taken from the golf course to the east. The proposal would not have a significant impact on this view.

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Overall, the Planning Authority has concerns over the mass and bulk of the main building, the height of the tanks and the height and bulk of the stack. The applicant is requested to address these concerns via **additional information**. Revised plans and photomontages should be provided.

Parking, Transport and Access

The applicant has submitted the following information as part of the Planning Application:

- Traffic and transport assessment

Roads has stated:

“Access & Roads Layout:

The existing site access from one of the main arteries within Profile Park will be used, this is a T-junction and is located on the north western boundary of the site. There is also provision for a second access gate to the north of the development. An auto track analysis has been provided detailing fire tender access. Sight line details are shown on the same drawing, for both access locations.

Permeability:

Limited details of pedestrian permeability have been provided.

Car Parking:

The car parking provisions at the site have been proposed as follows.

- 8 spaces for Staff.
- 2 Un-abled user spaces.
- Provision for 2 electrical charging points are also provided as part of the parking design.

A total of 12no. spaces is proposed. Although not specifically mentioned in South Dublin's Development plan, the car parking provision should match the number of staff envisaged working at the facility.

Bicycle Parking:

No provision has been made for bicycle parking, although a few operational staff will be employed at the facility”.

Additional information has been requested.

Services and Drainage

Water Services has assessed the proposal and have requested additional information relating to:

- surface water drainage design and details of attenuation
- details of SuDS
- provision of a revised surface water drainage layout showing that surface water is discharged to the Baldonnel Stream
- details of how flood compensation storage is being provided

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The applicant has submitted a proposed layout, but not an existing layout. The applicant is requested to provide an existing layout. It is recognised that there are no built structures on the site at present, but natural features should be indicated, including the stream, to enable the Planning Authority to assess any changes to these features. This should be provided via **additional information**. The applicant has indicated a 10m riparian strip on the development side of the stream and this is welcomed.

Inland Fisheries Ireland was formally consulted and have not responded. Given there is a stream within the site, a Construction Environmental Management Plan (CEMP) is required. It is noted that as part of the EIAR, the applicant has stated that a CEMP has been developed for the project and sets out that the mitigation measures outlined in the EIAR will be incorporated into the CEMP. Comprehensive surface water management measures must be implemented at the construction and operational stage to prevent any pollution of local surface waters and that all construction works should be in line with a detailed site specific Construction Environmental Management Plan. The CEMP should identify potential impacts and mitigating measures, it should provide a mechanism for ensuring compliance with environmental legislation and statutory consents. The CEMP should detail and ensure Best Construction Practices including measures to prevent and control the introduction of pollutants and deleterious matter to surface water and measures to minimise the generation of sediment and silt. Precautions must be taken to ensure there is no entry of solids, during the connection of pipework, or at any stage to the existing surface water system and the Griffeen catchment. In the event that permission is granted it is **recommended that conditions** to this affect are attached.

Irish Water has no objections, subject to conditions.

Archaeology

The Department of Culture, Heritage and the Gaeltacht has assessed the proposal and has provided the following comments:

“This Department note that the development site is located in an historic area adjacent to the site of Recorded Monument DU021-004- Kilbride Castle. In addition, recent archaeological investigations for the site immediately to the West of the proposed site (ref Geophysical Survey 20R0080 for Profile Properties) has identified the remains of a sub-circular enclosure and associated field systems. Archaeological testing has also confirmed the presence of this feature (carried out under licence 21E0061). It is therefore known that archaeological features/materials including an enclosure measuring c.30m in diameter has been found at the proposed site”.

It is considered that having regard to known archaeological features in proximity to the site that an Archaeological Assessment should be carried out as part of the Additional Information request.

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Landscaping

The Public Realm section has assessed the planning application and has determined that **additional information** is required:

- detail on how the landscape planting proposals above the proposed underground attenuation tanks will be done. The use of underground tanks should be avoided.
- Further details of SUDS should be provided. SDCC do not approve of using underground tanks as part of SuDS schemes where the full potential for the natural drainage features has not been explored.

“Further to this, it is stated “The proposed power station introduces significant hardstanding and prominent buildings into the landscape in its current configuration would materially contravene policy IE Objective 5 in the County Development Plan.

The Public Realm Section is requesting that the applicant provide details on how the landscape proposals can be undertaken above the proposed underground tanks and a landscape layout that ensures that a higher percentage of the soft natural SuDS features in the landscape”.

The applicant is requested to address the concerns of the Public Realm department via the provision of **additional information**.

Energy Analysis

Section 3.3.9 of the EIAR sets the following out in terms of Energy Analysis.

The following measure are set out:

- Planned maintenance schedules and plant conditioning monitoring will be employed to ensure optimum operating efficiency;
- Widespread use of insulation will be employed to minimise heat loss;
- Cladding and insulation will be inspected regularly and replaced / repaired as soon as practicable;
- Good housekeeping techniques will be employed to minimise energy wastage;
- Plant warm up procedures will be optimised to minimise supplementary fuel use;
- Heat transfer surfaces will be regularly cleaned;
- Where possible, equipment will be shut off when not in use;
- All employees will be provided with energy awareness and conservation training.
- Energy usage and opportunities for energy efficiency improvements will be identified and implemented through environmental management systems.
- High efficiency pumps and fans will be employed where practicable;
- High efficiency motors and drives with variable speed will be employed where practicable;
- The design of the main and ancillary buildings will comply with the requirements of the European Union (Energy Performance of Buildings) Regulations 2012;
- An energy efficiency audit will be completed as part of the EMS. The audit will be

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- undertaken in accordance with the Guidance Note on Energy Efficiency Audits, EPA (2003); and
- The EMS will focus on resource and energy use minimisation. Objectives and targets will be developed to ensure continuous improvement as considered practicable.

The following is stated:

“It should be noted in the power plant design that there has been no provision made for heat recovery or heat distribution because of the expected intermittent operating nature of the power plant operations. The plant has been designed to satisfy the system services requirements of EirGrid’s DS3 Programme as set out in Section 4.4. It may also be possible that in future the plant may provide an electricity supply to data centre development in Profile Park. However, the provision of heat recovery and distribution systems would not be financially viable and would not be considered BAT as per the requirements of the Industrial Emission (IE) Directive (2010/75/EU), BAT Reference Document for Large Combustion Plants (2017) and European Commission Implementing Decision on Best Available Techniques for the Large Combustion Plant (2017). Notwithstanding, in future years with developments in technology and subject to any changes in the operational profile of the plant, it may be feasible to consider such systems. In this respect, Greener Ideas Limited would be happy to accept a planning condition or an IE licence condition to undertake periodic technology and capacity reviews to investigate the potential for heat recovery or heat distribution”.

The points made regarding heat distribution are noted. The applicant has suggested a planning condition regarding potential future technologies. It is considered acceptable to impose such a condition in this instance.

Heritage and Bats

Chapter 12 of the EIAR details the ecological work that has been undertaken in relation to the proposed development. This has included a desk top study and field surveys – habitat and botanical survey, mammal surveys (terrestrial, including targeted badger, otter, bat surveys, Irish Hare, hedgehog, pygmy shrew), bird surveys and fisheries and aquatic ecology

Mitigation measures are recommended in terms of:

Construction phase: vegetation clearance, sediment and pollution control, dust control, noise and disturbance, management of invasive plant species.

Operational phase: external lighting

Decommissioning phase: same as construction.

The EIAR states *“It is anticipated with the implementation of mitigation measures (as detailed above), the construction, operational and decommissioning phases of the proposed development will not result in likely significant residual effects on any of the key ecological receptors at any geographic scale, with the exception of permanent loss of wet grassland habitat within the proposed development site, which will have a likely significant residual effect at a local geographic scale”*

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Should planning permission be granted, it is recommended the mitigation measures are secured via condition.

Aviation Safety

The site is located within the Department of Defence Inner Zone. The Department of Defence has provided comments on this application and has raised no objections, subject to conditions.

EPA and CRU

The EPA has stated:

“The proposed development may require a licence under Class 2.1 of the EPA Act. The Agency has not received a licence application relating to the development described above.

It is noted that the planning application was accompanied by an EIAR. Should the Agency receive a licence application for the development, the applicant will be required to submit the associated EIAR to the Agency as part of the licence application. The EIAR will be considered and assessed by the Agency and the Agency shall ensure that before the licence is granted, the licence application will be made subject to an Environmental Impact Assessment as respects the matters that come within the functions of the Agency and

in accordance with Section 83(2A) and Section 87(1G)(a) of the EPA Act. In addition, consultation on the licence application and EIAR will be carried out in accordance with Section 87 (1B) to (1H) of the EPA Act as appropriate. All observations from the planning authority will be taken into account as part of the Agency's assessment and before making a decision in relation to the licence application. Please also note that you will be requested to provide the documentation relating to the EIA you have carried out to the Agency under

Section 173A(4) of the Planning and Development Act 2000 as amended.

Should a licence application be received by the Agency all matters to do with emissions to the environment from the activities proposed, the licence application documentation and EIAR will be considered and assessed by the Agency.

Where the Agency is of the opinion that the activities, as proposed, cannot be carried on, or cannot be effectively regulated under a licence then the Agency cannot grant a licence for such an activity.

Should the Agency decide to grant a licence in respect of the activity, as proposed, it will incorporate conditions that will ensure that appropriate National and EU standards are applied, and that Best Available Techniques (BAT) will be used in the carrying on of the activities.

Finally, please note that in accordance with Section 87(1D)(d) of the EPA Act, the Agency cannot issue a Proposed Determination on a licence application which addresses the development above until a planning decision has been made”.

The above comments are noted. Section 1.5.3 of the EIAR states “*Greener Ideas Limited will submit an Industrial Emissions Licence application to the EPA as required*”.

No comments have been received from the Commission for Regulation of Utilities. The applicant states that they will apply to the CRU for the necessary Authorisations and Licences following receipt of planning permission for the proposed power plant. The Planning Authority considers that further information should be sought by way of **Additional Information request**.

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Seveso

The EIAR includes an assessment based upon Schedule 6 of the Planning and Development Regulations, 2001, as amended, which states “*a description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it. Relevant information available and obtained through risk assessments pursuant to European Union legislation such as the Seveso III Directive or the Nuclear Safety Directive or relevant assessments carried out pursuant to national legislation may be used for this purpose, provided that the requirements of the Environmental Impact Assessment Directive are met*”.

Paragraph 17.4.2 of the EIAR states “*The inventory of substances to be stored on the proposed power plant is not subject to any of the requirements contained in the Chemical Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 which implement the Seveso III Directive, the main EU legislation dealing specifically with the control of onshore major accident hazards involving dangerous substances, into Irish law*”.

A table of summary of major accidents is provided (table 17.3). In terms of mitigation, the proposed power plant will be designed and constructed in line with good industry practice, and, as such, mitigation against the risk of major accidents and/or disasters will be embedded through the design and in accordance with planning and Industrial Emissions Licence requirements.

A schedule of mitigation is provided. It is recommended that this is secured **via condition**.

Adequacy of Environmental Impact Assessment Report (EIAR)

The applicant has submitted an Environmental Impact Assessment Report having regard to Article 103 of the Planning and Development Regulations, 2001 as amended for an EIAR to be undertaken on a precautionary basis.

An EIAR process is defined in the EIA regulations and Directive. That an environment impact assessment means a process consisting of:

- (i) The preparation of an environmental impact assessment report;
- (ii) The carrying out of consultations;
- (iii) The examination by the competent authority of the information presented in the EIA report and any supplementary information provided, where necessary, by the developer;
- (iv) The reasoned conclusion by the competent authority on the significant effects of the project on the environment, taking into account the results of the examination referred to in point (iii) and, where appropriate, its own supplementary examinations and;
- (v) The integration of the competent authority's reasoned conclusion into any of the decisions.

The EIAR is prepared by the developer and is submitted to a Competent Authority as part of a consent process. The EIAR consists of a systematic analysis and assessment of the potential effects of a proposed project on the receiving environment. The amended EIA Directive prescribes a range

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of environmental factors which are used to organise descriptions of the environment and these factors must be addressed in the EIAR. These are listed in Article 3 (1) of the amended directive.

What an EIAR is to contain:

the developer shall include at least:

- (a) a description of the project comprising information on the site, design, size and other relevant features of the project;*
- (b) a description of the likely significant effects of the project on the environment;*
- (c) a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;*
- (d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;*
- (e) a non-technical summary of the information referred to in points (a) to (d); and*
- (f) any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.*

Adequacy of Environmental Impact Assessment Report (EIAR)

The EIAR sets out:

- Chapter 1 – Introduction
- Chapter 2 – EIA Report Methodology
- Chapter 3 – Description of the Development
- Chapter 4 – Need for the Development
- Chapter 5 – Consideration of Alternatives
- Chapter 6 – Planning Policy
- Chapters 7 – 17 sets out the required topics
- Chapter 18 – sets out interactions

An Environmental Impact Assessment Report (EIAR) has been submitted as part of the planning application which contains the EIAR and an Appendices. The direct, indirect and cumulative effects of the proposed project on the specified factors are identified, described and assessed in the following sections:

- Alternatives
- Population and human health
- Land, soil, and geology
- Hydrology and hydrogeology
- Air quality and climate
- Noise and vibration
- Biodiversity
- Cultural heritage
- Landscape / Townscape and visual
- Traffic and transportation
- Material assets

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- Major accidents and disasters
- Interactions

Subject to Article 108 of the Planning and Development Regulations 2001 (as amended) the Planning Authority is required to examine the adequacy of the EIAR submitted. It is considered that the proposed EIAR contains the information as set out in Schedule 6 of the Planning and Development Regulations (2001) as amended and in accordance with European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

Alternatives

The EIAR examines the following alternatives:

- Do Nothing' Scenario';
- Alternative Technologies;
- Alternative Locations;
- Alternative Process;
- Alternative Layouts; and
- Alternative Mitigations.

In terms of alternatives, the EIAR concludes:

- The site is an appropriate location
- Design proposed is most appropriate
- Site would be developed still under "do nothing" scenario
- This siting and design are suitable.

EIAR Reasoned Conclusion

Having regard to the environmental information contained within the EIAR and information submitted as part of the application, it is considered that the main significant direct and indirect residual effects of the proposed development on the environment are as follows:

- Population and human health:
 - Construction phase: The proposed power plant will have a slight positive residual impact on the local economy through construction worker spending.
 - Operational phase: The proposed power plant will support the balancing of the grid to enable greater renewable development on a national scale and help to achieve targets in national energy and climate change policies as well as provide the possibility for the future connection of data centre development to a direct energy supply. This is a direct positive long-term residual effect at a national level.
- Land, soil, and geology
- Hydrology and hydrogeology
- Air quality and climate: Once the mitigation measures are implemented, the residual impact on air quality from the construction of the proposed power plant will be short-term and imperceptible and for the operational phases of the proposed power plant will be long-term, negative and slight. The residual impact on climate from the construction of the proposed

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- power plant will be short-term and imperceptible and for the operational phases of the plant will be long-term, negative and slight.
- Noise and vibration: applicant states that the noise assessment indicates the following
 - Construction: noise: negative, not significant and short term. Vibration: negative, not significant momentary
 - Operation: Building service noise – negative, slight and long-term; operation power plant – negative, not significant and long term. Vibration: negative, not significant and long term.
 - Biodiversity: It is anticipated with the implementation of mitigation measures (as detailed above), the construction, operational and decommissioning phases of the proposed development will not result in likely significant residual effects on any of the key ecological receptors at any geographic scale, with the exception of permanent loss of wet grassland habitat within the proposed development site, which will have a likely significant residual effect at a local geographic scale.
 - Cultural heritage: There are no predicted residual impacts for the operational phase of the proposed development upon the archaeological and cultural heritage resource.
 - Landscape / Townscape and visual:
 - construction: landscape/townscape impacts was deemed to be 'Medium-low' within the immediate industrial context of the site and its surrounds of Profile Park, and 'Low' within the context of the wider study area. When sensitivity and magnitude judgements are combined, it resulted in a 'Slight' significance of townscape impact at construction stage for the site, Profile Park and the wider study area.
 - Operational: Concurrently, the magnitude of operational stage landscape/townscape impacts was deemed to be 'Medium-low' within the context of the site and Profile Park, where townscape sensitivity is judged to be 'Low.' However, the magnitude of operational stage landscape/townscape impacts was deemed to be 'Low' within the context of the wider study area, where townscape sensitivity was judged to be 'Medium-low.' Thus, when sensitivity and magnitude judgements are combined, it results in a 'Slight' significance of townscape impact at operational stage for the site, Profile Park and the wider study area.
 - Traffic and transportation: The junction assessments indicate that none of the junctions assessed are currently exceeding desirable capacity of 0.85. The maximum RFC of 0.52 was shown at the New Nangor Road / R134 Roundabout Junction of those assessed with a maximum RFC of 0.13 on the internal Profile Park Roundabout and 0.02 at the entrance to the proposed development. There will therefore be no significant residual effects associated with the construction, operational or decommissioning phases of the project.
 - Material assets: the resulting predicted impacts on material assets from the proposed power plant will be positive, slight and permanent
 - Major accidents and disasters: the residual risk of a major accident or disaster occurring during either the construction, operation or decommissioning phase of the project is either very low or low.
 - Interactions

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It is considered that the information contained within the EIAR allows for adequate assessment of the potential impacts of the proposed development on the receiving environment and complies with the requirements of Article 94 of the Planning and Development Regulations 2001 (as amended). However, further information is required relating to archaeology.

Appropriate Assessment

Information for the purposes of assisting in screening for Appropriate Assessment was prepared by Tobin Consulting Engineers. The report concludes

“It was determined, using best scientific knowledge, that potential impacts associated with the proposed development will not result in likely significant effects on the qualifying interests/special conservation interests of any European sites within the ZoI of the proposed development, in view of their conservation objectives. A Stage 2 Appropriate Assessment is therefore not required”.

Having reviewed the submitted information, the Planning Authority has concluded that, having regard to the nature of the development, connection to public services and the distance from the Natura 2000 sites, the proposed development would not require a Stage 2 Appropriate Assessment.

Conclusion

Overall, it is considered that although the application site is located within lands that are zoned EE in which a power plant would be acceptable in principle, the applicant has failed to provide sufficient information to enable the Planning Authority to make an informed decision or support the proposal. Based on the size, scale, and significance of the piece of infrastructure that is proposed, it is considered that additional information in relation to design, surface water, landscaping, flood risk and roads is required.

Recommendation

Request Further Information.

Further Information

Further Information requested: 19 August 2021

F.I. extension until 25 May 2022

Additional information received: 11 March 2022

Consultations:

Roads: No objections, subject to conditions.

EPA: No report received at time of writing.

Irish Water: No objections, subject to conditions.

TII: No report received at time of writing.

EHO: No objection, subject to conditions.

Parks: Request Clarification of Additional Information.

Heritage: No report received at time of writing.

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Water Services: Request clarification of additional information.

Submissions:

None.

Item 1:

(a) The applicant is requested to provide an addendum to the submitted design statement, which takes into consideration an assessment in terms of Paragraph 11.2.0 and tables 11.17 and 11.18 of the County Development Plan.

(b) The applicant is requested to make modifications to address all requirements laid out in the sections of the County Development as listed in Item a).

(c) All changes to the design shall be clearly reasoned and should demonstrate compliance with the objectives and policies of the County Development Plan.

Applicant's Response:

Given the above requirement, an updated Design Statement has been prepared which provides a comprehensive analysis of Section 11.2.0 and Tables 11.17 and 11.18 of the County Development Plan (CDP) 2016-2022. The updated Design Statement is included in Appendix 1 of the Tobin Consulting Cover Letter.

Assessment:

The applicant has now provided a comprehensive Design Statement. This sets out details of the proposed development, existing site constraints, basis of the design, including considerations and approach. The appendix sets out how the proposal has considered the listed documents in Table 11.2.0 (some of which are more relevant for residential development) and also tables 11.17 and 11.18. With regards landscaping the Planning Authority note the comments regarding the wider Profile Park inevitably being the responsibility of SDCC. The applicant also states "*in respect of the proposed power plant development, substantial landscaping and green areas have been introduced within the site. These include native hedgerows a, native woodlands and pollinator friendly wild grass seed mix*". However, the applicant has referred to the same statement with regards sections seeking details on retention of natural site features, such as trees, natural buffer zones and high quality elements of landscaping. The Planning Authority would have welcomed more consideration of these items through the design statement. Notwithstanding these minor concerns, the design statement is considered to be sufficient.

Item 2:

(a) The Planning Authority has concerns regarding the design of the proposed development in terms of bulk and massing. There are also concerns that the proposed development represents an overdevelopment of the site given its footprint, hardstanding and underground attenuation tank. The applicant is requested to review the submitted development and revise the plans / provide further justification for the scale in terms of:

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i main gas generation building - there is currently no breaking up in terms of the design of the facades.

ii The applicant is requested to revisit the design of the elevations fronting the site boundaries and add detail.

iii scale / height of the tanks - these appear quite prominent in the local context. The applicant is requested to reduce the scale of these (this could include an increased number of smaller tanks).

iv scale and height of the stacks. These are extremely prominent and are encased in a structure for the most part. The stacks are significantly taller than all surrounding structures. The applicant is requested to reduce the height and bulk of the structures. The Planning Authority would welcome a height of no more than 25m.

v overall level of development on the site. There are concerns that the proposal is overdevelopment. The applicant is requested to set out the percentage of land taken by buildings / tanks etc, roads and open spaces / attenuation. The applicant should investigate other lands to attenuate to to provide for open and natural attenuation.

(b) The applicant is also requested to provide an existing layout plan, indicating all natural features present.

Note: The above will likely result in significant additional information and therefore revised notices will be required.

Applicant's Response:

The original planning application proposed the development of a gas fired power plant of up to 125MW. To address SDCC's RFI, the planning application has been reduced to a development of up to 102MW. The original planning application assumed that 6 no. gas engines would be installed in a gas engine building measuring approximately 1735m² including a building height of 18.5m. GIL has removed one of those engines, thereby reducing the engines number from six to five. The result is that the engine building has reduced in footprint from 1735m² to 1580m² and the height of that building has reduced from 18.5m down to 15.5m. In addition, in the original planning application the overall size of the tank farm was 986m² with the updated site layout, the tank farm has been reduced in size to 580m².

These design modifications are summarised in the table below.

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Design Element	Original Dimension	Proposed New Dimension	Reduction / Increase
Plant Electrical output	Up to 125MW	Up to 102MW	Reduction
Number of Gas Engines	6	5	Reduction
Area of Gas Engine Hall	1735m ²	1510m ²	Reduction
Height of Gas Engine Hall	18.5m	15.5m	Reduction
Area of Tank Farm	986m ²	580m ²	Reduction
Stack Height	31.8m	28.0m	Reduction
Attenuation Tank	490m ³	355m ³	Reduction

In the original planning application, the stack height was 31.8m in height. With the reconfigured site layout and the reduction in gas engines from 6 to 5 no, it has been possible to reduce the stack height to 28m. It is not feasible to reduce the stack height any lower without compromising the operational viability of the power plant. Whilst the 28m stack does not reduce the stack to 25m it is noted that this target itself is arbitrary in terms of aesthetics and visual impact. For example, the finished floor level at the proposed power plant will be 74.8m AOD and so therefore the maximum single stack height would be 102.8m AOD. In comparison, the nearby Google development comprises 25 no. stacks with a height of 25m. However, these stacks are based on a finished floor levels of 77.85m AOD and therefore the maximum height of these 25 no. stacks is 102.85m which is a higher elevation than the single stack associated with the proposed power plant development. The above design changes and other minor changes associated with responding the SDCC request for further information are indicated in a revised suite of planning drawings which accompany this technical report.

The applicant has updated visual impact assessments:

- *RFI Photomontages;*
- *Landscape Mitigation Plan;*
- *Landscape Sections.*

The Zone of Theoretical Visibility (ZTV) mapping has been revised to reflect the reduction in height of the proposed Engine Hall from 18.5m down to 15.5m and the reduction in stack height from 31.8 down to 28m. The revised ZTV map is presented in Figure 1.1 below, and although it appears almost identical to the original ZTV map pattern as presented in the Landscape and Visual Impact Assessment contained in the EIA Report, the statistical variation equates to a 4.5% reduction in visibility for the revised stacks within the study area and a 3% reduction for the revised engine hall. An updated air quality impact assessment has been undertaken which indicates that the power plant would operate in compliance with the air quality limit values for the protection of human health. It is predicted that air emissions from the installation will not have a significant impact on the local environment. An updated Air Quality Assessment is included in Appendix 3.

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An updated noise and vibration impact assessment has been undertaken which indicates that the associated impact is 'Not Significant' at all locations for daytime and evening periods. An updated Noise and Vibration assessment is discussed in more detail in response to RFI No. 7.

The 28m stack height reduces the thermal plume scales which had previously been demonstrated to be acceptable for the 31.8m stack in respect of any aviation safety impacts at Casement Aerodrome (refer to Appendix 16.1 of the EIA Report submitted to SDCC).

The design changes which are subject to this RFI response will result in no change to the findings of the Screening for Appropriate Assessment which was submitted as part of the planning application to SDCC. The screening assessment concluded that the proposed development, either alone or in-combination with other plans and projects, will not result in significant effects on any European site, in view of the conservation objectives of the site, and therefore a Stage 2 Appropriate Assessment was not required.

A comprehensive response on proposals to attenuate surface water using natural attenuation is provided in response to RFI No. 4. In summary, the introduction of additional SuDS measures has reduced the volume of the surface water attenuation tank. The SuDS measures included are a combination of the following features: • Permeable paving; • Dry swale / bioretention area; • Attenuation Tank; • Petrol interceptor; and • Hydrobrake.

(b)

Figure 11.2 which was provided in Chapter 12 (Biodiversity) of the EIA Report originally submitted to SDCC is reproduced in this report in Appendix 4. This figure shows the existing habitats / natural features on the site of the proposed power plant. These include: • Wet grassland (dominant habitat on site); • Hedgerow (i.e. on fence line associated with neighbouring data centre); and • Eroding/Upland river (i.e. Baldonnel Stream). There are no other natural features on site. A topographical survey illustrating the existing site levels is also provided in Appendix 4.

Assessment:

It is noted that the applicant has re-advertised the proposal and that the red line has been amended to the west (apparently to accommodate a transformer).

In relation to point (a), the concerns regarding the overall bulk and massing of the proposal, the applicant has reduced the scale of the plant. Firstly, the output of the proposal has been reduced by 23MW, and the number of gas engines reduced from 6 to 5. Floor area has reduced for the gas hall also, by 225sq.m and height has reduced by 3m (stack height has reduced by 3.8m to 28m). The tank farm area has reduced by 406sq.m. It is noted that the applicant is still proposing an attenuation tank, although this has reduced in size. The Planning Authority raised concerns previously that the proposed development was overdevelopment of the site.

In relation to point (a) (i) the facades of the main gas building, the photomontages best demonstrate the changes. Along with the change in height and landscaping mitigation, the buildings are far less prominent. The reduced pitch of the roof, along with the colour changes in the cladding is also noted and welcomed

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In relation to point (a) (ii) (detail on site boundary frontages) the applicant has not added any significant detail to the design of the northern frontage. It is noted that mitigation is proposed in terms of screening, however, this will take time to become established and may fail. The Planning Authority would welcome some design features to create visual interest along this elevation.

Clarification of additional information is therefore requested in this regard. It is also apparent from viewpoint 3 that changes in colouring and landscaping have been relied upon for mitigation. Again, the Planning Authority would welcome some design features to create visual interest along these elevations. **Clarification of additional information is therefore requested in this regard.**

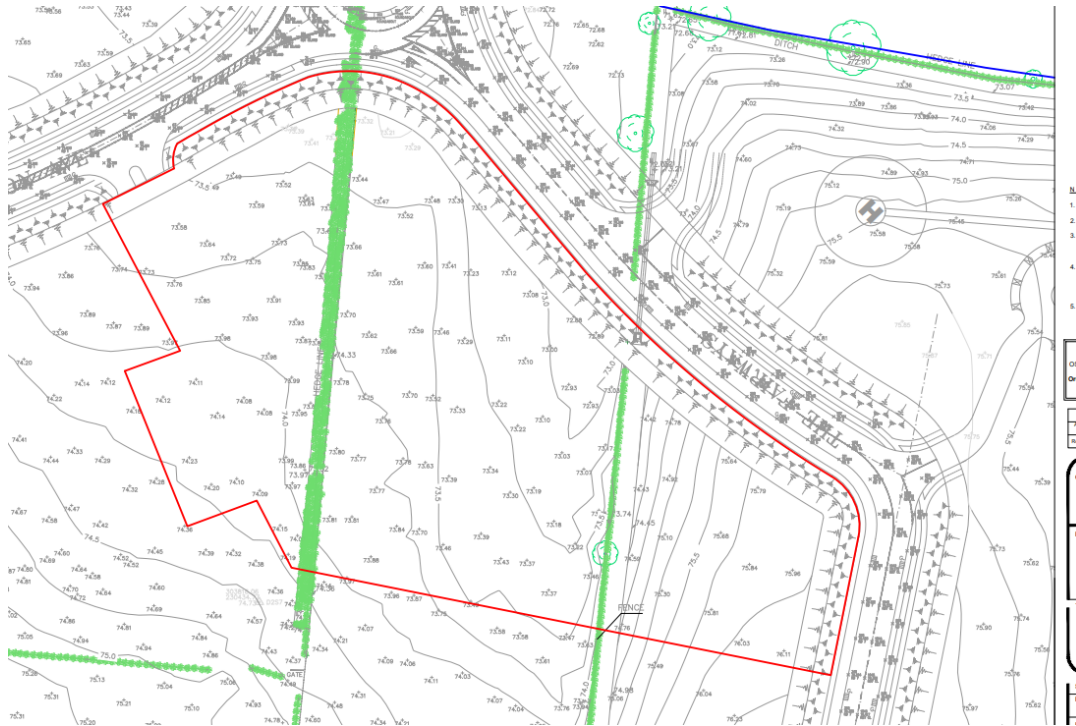
In relation to point (a) (iii) the applicant has reduced the scale of the tank farm – they were previously 986sq.m and are now 580sq.m. This is welcomed. The visuals submitted indicate that the diesel tanks are slightly taller than previously. However, it is noted that they are only visible from local views and the change in colour is considered appropriate in this instance.

In relation to (a) (iv) the applicant has reduced the scale of the stacks by 3.8m. This gives an overall height of 28m, a significant reduction from the previous proposal. The visuals submitted indicate that it is still a bulky structure, with the stacks enclosed within a building. The stacks would be visible from long distances and have the potential to become a landmark with views from significant distances from the site. The Planning Authority would welcome a reduction in the bulk of the structure and reconsideration of the design, which is monotone at present. **Clarification of additional information** is therefore requested in this regard.

In relation to (a) (v), it does appear that there has been an introduction of more green areas across the site and provides a quantitative assessment of the areas taken up by buildings / tanks etc, roads and open spaces / attenuation. Whilst the applicant has provided floor areas, it is not apparent that this assessment has been provided. The applicant is therefore requested to clearly set out the information requested in (a) (v) as **clarification**.

In relation to (b) the applicant has submitted the following:

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This indicates approx. 2m change in levels across the site, with a steeper gradient to the south east and two hedgerows traversing the site.

The Planning Authority would welcome the submission of existing and proposed sections / contiguous elevations that indicate the level changes across the site. Details of cut and fill should be provided. This is requested as **clarification**.

Overall – The Planning Authority welcomes the proposed changes, however, **clarification** is requested to ensure the design of the proposal is acceptable.

Item 3:

The proposed power station introduces significant hardstanding and building development into the landscape which potentially runs contrary to Policy IE Objective 5 in the County Development Plan and other policies and objectives contained in Chapters 7 and 8 of the same plan. The applicant is requested to provide revised proposals demonstrating the following:

- (1) A reduction in hardstanding and soil sealing across the entire site
- (2) Increased planting to provide, that includes for the augmentation of biodiversity and increased ecology on the site. Clearly demonstrating how it links to other Green Infrastructure in the area.
- (3) How the landscape proposals can provide for above ground attenuation incorporating natural solutions. Please note the Planning Authority only accept underground attenuation tanks as a last resort. An alternative location should be sought and found for the provision of nature-based

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solutions and above ground attenuation or perhaps an alternative location should be found for the proposed development.

(4) A landscape layout that ensures that a higher percentage of the soft natural SuDS features in the landscape are retained and augmented.

The applicant is requested to address all of the above issues.

Applicant's Response:

1 and 2) As shown in Appendix 4 the existing habitats on the site and surrounding areas include: • Wet grassland (dominant habitat on site). • Hedgerow (i.e. on fence line associated with neighbouring data centre) • Eroding/Upland river (i.e. Baldonnel Stream). • Dry calcareous natural grassland. The development of the proposed power plant incorporating the new updates will see the introduction of unpaved greenspace and permeable ground relative to the original design as the footprint of buildings and overall plot ratio has been reduced. This allows for a greater degree of landscape planting with associated biodiversity benefit. The only existing planting in the immediate vicinity of the proposed powerplant is within the fence line of the neighbouring data centre. The proposed power plant includes native hedgerow and native woodland mix along much of the shared boundary with this data centre. This planting will complement and enhance the existing planting and the remainder of the planting scheme in particular along the sites western boundary will provide new landscaping in what is current exposed grassland.

3) Please refer to the response provided in RFI 4(a) in respect of updated SuDS proposals for the proposed power plant development site. These proposals have been incorporated fully into the Landscape Mitigation Plan.

4) Please refer to the response provided in RFI 4(a) in respect of updated SuDS proposals for the proposed power plant development site. These proposals have been incorporated fully into the Landscape Mitigation Plan.

Assessment:

In relation to point (1) the response states the green areas have been introduced and it is apparent from the layout plan that this is the case, however, the applicant has not clearly set out details of these changes to enable assessment. **Clarification** is required.

In relation to (2) the applicant says the plot ratio has been reduced, but again, the details have not clearly been det out.

In relation to (3) the applicant is still proposing underground attenuation. The applicant has set out details for this item and item (4) in the landscape mitigation plan. Both Water Services and Parks and Public Realm departments have expressed concerns regarding SuDS and further information is requested to address these matters. **Clarification** is therefore requested.

Item 4:

a. In order for Water Services to assess surface water attenuation proposals, the applicant is requested to submit a report including design calculations showing how surface water up to and including the 1:100 (1%) year critical storm with climate change allowance will be attenuated on

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site to pre-developed greenfield run off rates. The report should include the following site information:

- SAAR (Standard Average Annual Rainfall) Value
- SOIL Value
- MET Eireann Rainfall Data
- Site Area
- A breakdown of all proposed area types in m² for the site eg. Roads, Hardstanding, Grasscrete, Grass etc.

b. The applicant is requested to submit a cross section detail of all proposed Sustainable Drainage (SuDS) features for the development ie. Grasscrete, Swales permeable paving, infiltration basins etc. The applicant shall also examine whether there is potential to include further SuDS features across the site such as detention basins, further swales, filter drains etc.

c. The applicant is requested to submit a revised surface water drainage layout showing that surface water is discharged to the Baldonnell Stream in the direction of flow and not against the flow which is currently proposed. The drawing shall also show that the proposed attenuation system is a minimum of 3m away from all existing and proposed Wastewater and Water supply infrastructure on the site also external to the site.

Applicant's Response:

a.

A new surface water drainage system incorporating Sustainable Urban Drainage Systems (SuDs) features will collect run off from the proposed development. The surface water drainage has been designed in accordance with the "Greater Dublin Regional Code of Practice for Drainage Work" (Draft version 6.0) and the CDP 2016-2022. In addition, the recommendations of the Greater Dublin Strategic Drainage Strategy (GDSDS) and EN752:2017 Drain and sewer systems outside buildings - sewer system management have been incorporated into the surface water design. It is proposed to attenuated runoff from the proposed development to Greenfield Runoff or Q_{bar} as per the recommendations of the GDSDS. Q_{bar} is estimated at 5.1l/s using the Institute of Hydrology equation.

A number of SuDs features have been proposed into the surface water drainage system in accordance with the GDSDS. SuDs are incorporated to attenuate runoff and volumes; reduce pollutant concentrations in surface water and to replicate the natural characteristics of surface water run off for the site in its pre-developed state. The following SuDs features are proposed. Surface water runoff from the site will be collected and directed towards the proposed Pluvial Cube attenuation tank. This attenuation tank has been reduced in size from 490m² to 355m². The tank will be located beneath the Permeable Grasscrete Car Parking area. The surface water infrastructure will cater for the storage of a 1 in 100 year storm event.

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It is proposed to install permeable Grasscrete within the parking areas of the site. The water once permeated into the pavement will be allowed to infiltrate into the ground. The inclusion of the permeable paving will slow the surface water to be treated on site and provide storage. soil that overlays an underdrain system. This underdrain provides additional treatment and conveyance capacity beneath the base of the swale/bioretention and prevents water logging. To prevent infiltration, or where groundwater levels are high, a liner is to be introduced at the base. It is proposed to flow all the surface water collected through a petrol interceptor before discharging to the Baldonnell Stream to ensure a certain level of treatment is provided to the surface water.

The rate of discharge from the proposed development will be controlled using two Hydrobrakes. The total rate of discharged was determined using the QBAR greenfield run off method. The total rate of discharge was calculated at 5.1l/s.

b.

Please refer Planning Application Drawings 11069-2004 and 11069-2011 for SuDS details.

c.

Please refer Planning Application Drawings 11069-2004 and 11069-2011 for SuDS details.

Assessment:

The response from Water Services states “*The applicant's use of 1000mm for SAAR (Standard Average the Annual Rainfall) value is too high. A SAAR value of 780mm shall be used in greenfield run off rate calculations which results in a maximum discharge rate from the suite of 3.8L/S. The applicant is required to submit a revised surface water drainage layout drawing and report with revised calculations showing revised attenuation calculations based on a maximum greenfield discharge rate from the site of 3.8L/S*”. **Clarification of Additional Information** is requested. Clarification is also requested regarding the provision of SuDS and green roofs.

Item 5:

There is a lack of SuDS (Sustainable Drainage System) shown for the proposed development. Natural SUDS features should be incorporated into the proposed drainage system that address amenity, biodiversity and water quality as well as volume attenuation. The use of underground tanks should be avoided.

The applicant shall show further proposed SuDS features for the development such as green roofs, living walls, further natural swales, channel rills, integrated tree pits, bioretention, above ground attenuation, detention basins, reed bed/wetland etc. and other such SuDS and show what attenuation capacity is provided by such SuDS. The SuDS features should be integrated into the landscape proposal and details provided on how they work.

Applicant's Response:

Please refer to the response provided to RFI 4(a)(b)(c) in relation to the introduction of additional SuDS and the reduction in size of the surface water attenuation tank from 490m² to 355m². This tank is located underneath the car parking spaces within the site and dos not impact on the

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availability of other parts of the site to provide natural attenuation. In addition, a number of additional SUDS measures are achieved on the site through the introduction of the following: • Permeable paving; • Dry swale / bioretention area; • Detention basin; • Petrol interceptor; and • Hydrobrake. The combination of the above measures will replicate the natural characteristics of surface water run off for the site in its pre-developed state. The Attenuation tank enables the surface water runoff from the site to be as per the pre developed greenfield rate, by attenuating the excess storm water until it is able to discharge the water slowly into the existing stream. Due to the compensatory flood storage and function of the site there is limited green space to accommodate more softer SuDs measures. There are four main categories of benefits associated with SuDS. These are water quantity, water quality, amenity and biodiversity. The design criteria for these categories are provided in Table 6.1 along with a commentary on how the proposed power plant site is proposed in accordance with same.

Assessment:

The Parks Department has stated “i) *The use of petrol interceptors is not best practice SuDS and should be avoided. The applicant is requested utilise above ground natural source control feature(s) such as filter strips/swales or basins in lieu of below ground oil interceptors. Refer to SDCC Sustainable Drainage Explanatory Design and Evaluation Guide (sections 7.4.5 and 7.4.7). An oil interceptor at a location where woodland and hedgerow mitigation planting is proposed is not compatible.*

ii) *Has the flood compensation storage volume taken into account the proposed mitigation tree planting?”.*

Clarification of additional information has been requested, as has the submission of a revised landscape plan.

Item 6:

There are some areas within the subject site located within Flood Zone B according to South Dublin County Council's Strategic Flood Risk Assessment 2016-2022 and OPW's (Office of Public Works) CFRAM maps. The applicant is required to provide compensation flood storage for any loss in existing flood plain storage to help ensure there will be no exacerbation of flooding issues upstream or downstream of the subject site. The applicant is therefore requested to submit plans, cross sectional details and design calculations which clearly demonstrates how flood compensation storage is being provided on the site given that it is proposed to build within a Flood zone B area. Note: natural solutions and open attenuation should be provided and investigated.

Applicant's Response:

Site-specific hydraulic modelling of the Baldonnell Stream indicates the subject site is liable to fluvial flooding in an extreme 0.1% AEP MRFS event, with predicted flood extents consistent with the South Dublin County Council's Strategic Flood Risk Assessment 2016-2022 and OPW's (Office of Public Works) CFRAM maps. The site-specific hydraulic model predicts a highwater level of approximately 73.66mOD and is used as the design flood level for site layout and compensation

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storage design. As per Planning Application Drawing 1069-2011, volumetric compensation flood storage is provided within the subject site through the design of a grassed flood storage area to provide open attenuation on site. Based on existing and proposed site topography and the design flood level of 73.66mOD, approximately 803m³ of floodplain storage is predicted to be displaced by the proposed development. The proposed storage area provides 1034m³ of floodplain storage, introducing an additional 231m³ within the subject site. Care has been taken in the design of compensatory flood storage to ensure connectivity with the floodplain, maintenance of existing channel banks, and efficacy of the proposed drainage system. Based on the results of the hydraulic analysis, it is predicted that increasing site elevations to restrict flows from entering the subject site is predicted to increase water levels up to 0.005m at the subject site during a 1000-year MRFS event without provision of compensatory storage. Flows from the subject site are limited by the adjacent 1.1m diameter culvert, whereby in conjunction with the provision of compensatory storage, it is therefore predicted the proposed development will not impact flood risk elsewhere in the catchment. In terms of flood risk to the proposed development, proposed FFLs of 74.8mOD provide more than 1m freeboard above the predicted 0.1% AEP MRFS flood level at the site. While roads within the site boundary are depressed to provide additional flood storage in water-compatible areas, the main site access and route from the car park is elevated to provide safe access/egress during an extreme event. Based on the result of site-specific modelling and Stage 3 Flood Risk Assessment, and the subsequent design of compensatory flood storage, it is predicted that the development will have an imperceptible impact on flood risk upstream/downstream of the subject site, and the risk of flooding associated with the development will be minimal. The proposed development has been assessed against, and demonstrated to satisfy, the criteria of the Planning System and Flood Risk Management (PSFRM) Justification Test which is set out in Appendix 9.1 of the EIAR submitted with the original planning application.

Assessment:

The report received from Water Services states “*The applicant is required to provide a report showing hydraulic model results for flood areas post development works. The report shall demonstrate the operation of the proposed flood compensation area for the 1 in 1000 year plus climate change scenario. The report shall take in consideration residual risks associated with the proposed flood mitigation measures on site.*

It is unclear how surface water run off will discharge from the proposed flood compensation area to the Baldonnel stream. The applicant is required to submit a longitudinal section view drawing of the proposed flood compensation area which demonstrates how surface water will enter and exit the basin. The drawing shall include details of levels along the basin and at the discharge point of the stream to demonstrate this”.

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Item 7:

The proposed application highlights a potential for noise to impact on a number of nearby receivers. The noise levels predict a notable change in the noise level at these receivers during the night time period.

- The applicant is required to assess and re-evaluate all noise emitting equipment proposed on site in this application.
- The applicant must undertake necessary modifications to the proposed structures and operations on site in order to reduce the predicted noise levels at the nearby receivers to an acceptable level during both day and night time.
- The development must not give rise to noise levels that exceed the background level for evening and night time periods.
- The applicant must demonstrate the development can meet the standards set out by South Dublin County Council as noted below:

Noise due to the normal operation of the proposed development, expressed as Laeq over 15 minutes at the façade of a noise sensitive location, shall not exceed the daytime background level by more than 10 dB(A) and shall not exceed the background level for evening and night time. Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level.

Applicant's Response:

In response to this RFI, AWN Consulting has prepared a Noise Modelling Briefing Note which is included as Appendix 6. Each of the above requirements are comprehensively assessed both in terms of the original assessment and the updated assessment which was required given the change in design and the overall reduction in scale of the power plant which was made in light of Council statements in the RFI.

The following is noted:

- *The adopted noise limits proposed in the EIAR (see Section 12.2.1.7) satisfy the "standards set out by South Dublin Council" as noted in the RFI. The criteria were selected such that predicted noise associated with the site does "not exceed the daytime background level by more than 10 dB(A)" and does "not exceed the background level for evening and night time"*
- *As part of the original EIAR the plant was reviewed and selected such that the predicted noise levels satisfy the "standards set out by South Dublin Council" as noted in the RFI. Therefore, there is no requirement for "modifications to the proposed structures and operations on site in order to reduce the predicted noise levels at nearby receivers to acceptable level during both day and nighttime". The noise impact presented in the EIAR is directly applicable to the impact presented for the revised layout being proposed as part of the wider RFI response.*
- *While the predicted noise levels presented in the EIAR did show a change in noise level at nearby noise sensitive locations the impacts were not determined as significant as detailed in the relevant sections of the EIAR (i.e. Table 12.19, Table 12.20 and Table 12.21).*

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- *To reiterate the predicted noise levels presented in the EIAR did not present “noise levels that exceed the background level for evening and night time periods”*

As part of a wider response to the RFI the site layout has altered with a reduction in the scale of the proposed power plant. The noise modelling presented in the EIAR has been updated and the results of this exercise are presented in Appendix 7. The results of the updated modelling do not change the comments presented in relation to RFI 7.

Review of the predicted increases in noise level at the nearest residential noise sensitive locations conclude that the associated impact is ‘Not Significant’ at all locations for daytime and evening periods. During night-time periods the predicted impact is Not Significant at all locations with the exception of R01 and R14 where a Slight impact is predicted. This impact is considered acceptable in terms of Environmental Protection Agency (EPA) Draft ‘Guidelines on the Information to be Contained in Environmental Impact Assessment Reports’ (EPA, 2017). By contrast, a significant impact is one where there is a 5dB increase in baseline noise and this is clearly not applicable in this case. It should be noted that this power plant will be subject to an Industrial Emissions Licence (IEL) from the Environmental Protection Agency. As per Section 34(2)(c) of the Planning and Development Act 2000, as amended, the control of emissions arising from licensed facilities is a function of the Agency. Greener Ideas Limited will ensure as that the proposed power plant operates in accordance with the requirements of any future Industrial Emissions Licence.

Assessment:

The report received from the EHO states ““The Environmental Health Department reviewed the initial application and expressed concerns with regard to operational noise.

The initial acoustic assessment undertaken highlighted a proposed increase in the existing background noise across a total of 6 of the receivers with respect to the long-term operational noise.

The amended acoustic report is noted under Appendix 6 the further information submission document completed. The acoustic report completed by AWN, dated the 27th of November 2021 does not address the issues raised in the request for further information by Environmental health.

Table 12-7 of the report indicates there are still increases in background noise levels across 6 of the receivers. The increase at receiver R14 is predicted to be 3dB during the night time period. It should also be noted that receiver R14 represents a row of dormer bungalows along Nangor Road and as a result there is potential for disturbance to occur to multiple residents.

Whilst the increase of 3dB is referred to as “slight” within the report, an increase of 3dB is regarded as being a notable increase. These exceedances do not comply with Councils standard criteria which states that noise shall not exceed the background level for evening and night time.

Under section 8.0 of the submission by Tobin Consulting Engineers, revision D02, dated the 9th of December 2021 the report acknowledges these predicted increases to locations R01 and R14. The

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report continues to reference to EPA draft "guidelines on the information to be contained in Environmental Impact Assessment Reports". Whilst it is noted the plant will be subject to an Industrial Emissions License it is the role of the Local Authority to ensure that a development will not give rise to long term noise impact on the existing receivers.

It is noted that profile park is the subject of other planning developments of similar nature. It is therefore important to ensure that incremental noise increases to the background noise level do not occur as this can lead to "background creep" occurring.

The term "Background creep" refers to the process by which noise levels progressively become higher over time. This can occur in quite areas that have been developed for industrial use whereby there is a slow progression of development in the area which leads to an accumulation of noise sources.

The Environmental Health Department have included an acoustic verification condition requiring the applicant to demonstrate that the development can meet the South Dublin County Council's standard criteria. This will provide the applicant with a further opportunity to address Environmental Health concerns".

Conditions have been recommended, however, considering clarification is being sought on a number of other matters, it is considered that **clarification** should be sought for this matter also.

Item 8:

The Planning Authority notes the report received from the Department. The development site is located in a historic area adjacent to the site of Recorded Monument DU021-004- Kilbride Castle. In addition, recent archaeological investigations for the site immediately to the West of the proposed site (ref Geophysical Survey 20R0080 for Profile Properties) has identified the remains of a sub-circular enclosure and associated field systems. Archaeological testing has also confirmed the presence of this feature (carried out under licence 21E0061). Having regard to known archaeological features/materials including an enclosure measuring approximately .30m in diameter in proximity to the site the applicant is requested to submit a full Archaeological Assessment of the lands as part of this Additional Information request. The Planning Authority notes the lack of information in the EIAR. The applicant should liaise directly with the Department prior to responding to this AI request and submit all details of this correspondence and agreements.

Applicant's Response:

In response to this RFI, IAC Archaeology has prepared an Archaeological Assessment Report which is included as Appendix 7. The purpose of the assessment was to investigate the archaeological and historical resource on the site of the proposed power plant. Archaeological testing was carried out over the course of one day on the 4th of November 2021 using a mechanical excavator fitted with a flat grading bucket. The trenches targeted open green space to fully investigate the archaeological potential of the site. Testing revealed one area of archaeological significance which is an oval pit filled by a light grey plastic silty clay-marl with frequent inclusions

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of charcoal and animal bone. It may represent a waterlogged pit, possibly a well or cistern. Spoil from a third-party development covered the north and north western area of the site which prevented test trenches from being excavated in this area. The eastern area of the site had around 2.5m of modern backfill consisting of different layers of gravel and concrete blocks and with 0.2m of topsoil, which lead to the scaling back of test trenches. IAC Archaeology has recommended that the area of impact associated with the oval pit should be preserved by record through full archaeological excavation prior to the construction of the proposed power plant.

IAC Archaeology has also recommended that all ground disturbances associated with the proposed development be monitored by a suitably qualified archaeologist. If any features of archaeological potential are discovered during the course of the works further archaeological mitigation may be required, such as preservation in-situ or by record. Any further mitigation will require approval from the National Monuments Service (NMS) of the Department of Housing, Local Government and Heritage. In relation to the wording of the above mitigations, this is standard wording required by the National Monuments Service (NMS) and is considered typical for archaeological features such as that identified on the proposed power plant site. In relation to the final point in the RFI and the requirement to liaise directly with the NMS and to provide details of same, all such details are included in Appendix 8. These include: • The RFI received from South Dublin County Council; • NMS Application Form (NMS 1 – 2019); • Method Statement; • Archaeological Testing Confirmation Letter from Client. • NMS Licence Approval;

The above information (i.e. NMS application documents), plus NMS approval of Archaeological Assessment Report) and completion (i.e. the submission of the final report to NMS) is the standard engagement process with NMS for such investigations and associated reporting. It should be noted that NM do not normally acknowledge these submissions except in rare circumstances. It is more likely that the NMS will engage with the Planning Authority if a formal request for opinion on same is requested. Notwithstanding the above, a request for an opinion on the assessment has been made of NMS but at the time of the RFI submission to SDCC no response had been received.

Assessment:

No report has been received from the Department. The applicant has not provided an update to the archaeology section of the EIAR and is requested to do this as **clarification of additional information.**

Item 9:

The applicant is requested to submit a revised layout showing the, bicycle parking and pedestrian routes within the development. Please refer to Table 11.22: Minimum Bicycle Parking Rates– SDCC County Development Plan 2016-2022.

- (a) The minimum width of footpaths shall be 1.8m wide to aid mobility impaired users.
- (b) All external bicycle parking spaces shall be covered.
- (c) Footpath layout shall provide adequate connectivity around the development and footpaths on the main road.

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Applicant's Response:

Please refer Planning Application Drawings 11069-2003 which has been updated to better illustrate footpaths within the development site. It is proposed that as part of the detailed design of the proposed power plant that an updated pedestrian and cyclist mobility plan is agreed with SDCC. Greener Ideas Limited is happy to accept a planning condition relating to same. It should be noted that bicycle parking will be covered.

Assessment:

A report has been received from the Roads Department. This states “*The applicant has submitted details of pedestrian routes and bicycle parking. Roads are satisfied with the submission*”. There are no objections, subject to conditions.

Adequacy of Revised Environmental Impact Assessment Report (EIAR)

The applicant previously submitted an Environmental Impact Assessment Report having regard to Article 103 of the Planning and Development Regulations, 2001 as amended for an EIAR to be undertaken on a precautionary basis. This was assessed as part of the original application. As a result of the additional information requested, the applicant has submitted some revisions to the EIAR.

- Air quality and climate: Once the mitigation measures outlined in Section 10.5.3 are implemented, the residual impact on air quality from the construction of the Proposed Development will be short-term and imperceptible and for the operational phases of the Proposed Development will be long-term, negative and slight. The residual impact on climate from the construction of the Proposed Development will be short-term and imperceptible and for the operational phases of the Proposed Development will be long-term, negative and slight.
- Cultural heritage: It is noted that an Archaeological Assessment has been provided. This has not been set out in the context of the EIAR or as an addendum to the EIAR. The Planning Authority request clarification of additional information in this regard. It is noted that the no response has been received from the Department regarding archaeology and the Applicant is requested to further liaise with the Department prior to the submission of **Clarification of additional information.**

Conclusion

Overall, it is considered that although the application site is located within lands that are zoned EE in which a power plant would be acceptable in principle, the applicant has failed to provide sufficient information to enable the Planning Authority to make an informed decision or support the proposal. Based on the size, scale, and significance of the piece of infrastructure that is proposed, it is considered that clarification of additional information in relation to design, surface water, landscaping and flood risk is required.

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Recommendation

I recommend that **CLARIFICATION OF ADDITIONAL INFORMATION** be requested from the applicant with regard to the following:

1. (a) The Planning Authority still has concerns regarding the design of the proposed development in terms of bulk and massing. concerns that the proposed development represents an overdevelopment of the site given its footprint, hardstanding and underground attenuation tank also remain.
The applicant is therefore requested to review the submitted development and revise the plans / provide further justification for the scale in terms of:
 - (i) detail of the design of the road facing north, east and south frontages. Whilst colour adds variety to the facades, the applicant is requested to add further detail to break up these frontages. The presence of landscaping is welcomed however it should not be relied upon solely to mitigate visual impact.
 - (ii) massing and design of the stack structure. This is still extremely prominent and is encased in a structure for the most part. The stacks are significantly taller than all surrounding structures. The applicant is requested to reduce bulk of the encasement and reconsider the proposed materials.
 - (iii) overall level of development on the site. There are concerns that the proposal is overdevelopment. The applicant is requested to set out the percentage of land taken by buildings / tanks etc, roads and open spaces / attenuation. The applicant should investigate other lands to attenuate to provide for open and natural attenuation.
- (b) The applicant previously provided an existing layout plan, indicating all natural features present. The Planning Authority would welcome the submission of existing an proposed sections / contiguous elevations that indicate the level changes across the site. Details of cut and fill should be provided.
2. As stated previously, the proposed power station introduces significant hardstanding and building development into the landscape which potentially runs contrary to Policy IE Objective 5 in the County Development Plan and other policies and objectives contained in Chapters 7 and 8 of the same plan. The applicant is requested to clearly set out:
 - (1) The percentage of hardstanding
 - (2) The plot ratio and how this had changed from initial proposal to current design
3. (i) The applicant's use of 1000mm for SAAR (Standard Average Annual Rainfall) value is too high. A SAAR value of 780mm shall be used in greenfield run off rate calculations which results in a maximum discharge rate from the suite of 3.8L/S.
The applicant is requested to submit a revised surface water drainage layout drawing and report with revised calculations showing revised attenuation calculations based on a maximum greenfield discharge rate from the site of 3.8L/S.
- (ii) The applicant is requested to include green roofs on the site where feasible to reduce the amount of hardstanding area. Green roofs may be included on industrial buildings and/or ancillary buildings such as security huts, office admin buildings etc. The applicant is requested to submit a revised surface water drainage layout drawing showing the maximisation of green roofs across the site and include a section detail of the proposed

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green roof system.

4. (i) The applicant is requested to provide a report showing hydraulic model results for flood areas post development works. The report shall demonstrate the operation of the proposed flood compensation area for the 1 in 1000 year plus climate change scenario. The report shall take in consideration residual risks associated with the proposed flood mitigation measures on site.
(ii) It is unclear how surface water run off will discharge from the proposed flood compensation area to the Baldonnel stream. The applicant is requested to submit a longitudinal section view drawing of the proposed flood compensation area which demonstrates how surface water will enter and exit the basin. The drawing shall include details of levels along the basin and at the discharge point of the stream to demonstrate this.
5. (1) SuDS.
(i) The use of petrol interceptors is not best practice SuDS and should be avoided. The applicant is requested utilise above ground natural source control feature(s) such as filter strips/swales or basins in lieu of below ground oil interceptors. The applicant should refer to SDCC Sustainable Drainage Explanatory Design and Evaluation Guide (sections 7.4.5 and 7.4.7). An oil interceptor at a location where woodland and hedgerow mitigation planting is proposed is not compatible.
(ii) The applicant is requested to clarify whether the flood compensation storage volume taken into account the proposed mitigation tree planting?
(2) Landscaping
The applicant is requested to provide an updated Landscape (Mitigation) Plan that integrate the revised SuDS proposals to ensure they are achievable. A fully detailed landscape Masterplan, to be agreed with Public Realm, with full works specification, that accords with the specifications and requirements of the Council's Public Realm Section. The landscape Plan shall include hard and soft landscaping including levels, sections and elevations, detailed planting proposals for all SUDs features including proposed swale(s) and flood ditch.
The Landscape Masterplan shall include the following:
 - (i) A scaled Landscape Masterplan with cross- sections (where appropriate) showing the general layout and hard and soft landscape treatment of all external areas/spaces (including front and rear gardens), boundaries, structures and features. This shall be generally provided at a maximum scale of 1/200.
 - (ii) Details of Hard Landscape Design (where applicable) for boundaries, (walls, fences, screens), lighting, seating, kerbing, edging, surfacing and water features.
 - (iii) Details of Soft Landscape Design: detailed Planting Plan(s) and Planting Schedule(s) [species/varieties, quantities, sizes, rootball presentation, spacings]
 - (iv) A Landscape Specification for all materials (hard and soft landscaping), workmanship and landscape maintenance (18 months minimum period post Practical Completion).
 - (v) A timescale for implementation of all proposals, including specified landscape maintenance operations; Landscape Contract(s) to include an 18-months Defects Liability clause, (hard and soft landscaping) after Certified Practical Completion (by the landscape

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consultant)

(vi) Planting material where possible should be Irish Grown Nursey Stock and the importation of foreign planting material should be avoided within the proposed planting schemes.

(vii) Details of lighting and other underground services should also be included on a planting plan drawing to ensure that proposals are realistic, and planting is not precluded by the location of underground services. Details of lighting design that mitigate the impacts on commuting/foraging bats.

6. The applicant has not clearly set out in the additional information submission that it can be demonstrated that the development can meet the standards set out by South Dublin County Council, as requested in item 7.

The applicant is requested to submit an Acoustic Verification report as clarification of additional information. The report must confirm whether the development is capable of complying with Council's standard operational noise criteria, set out below:

Noise due to the normal operation of the proposed development, expressed as Laeq over 15 minutes at the façade of a noise sensitive location, shall not exceed the daytime background level by more than 10 dB(A) and shall not exceed the background level for evening and night time.

(a) This Acoustic Verification report should comprise of noise monitoring data at any noise sensitive locations. It should also include the cumulative noise level whereby the existing noise levels are included in the assessment of the developments overall impact.

(b) The Acoustic Verification report should include performance specifications for any changes/modifications which have been incorporated in order to reduce operational noise levels during the night time period.

The report must include a statement certifying whether the development or proposed use is fully capable of complying with the requirements of the following noise control condition:

(1) Noise due to the normal operation of the proposed development, expressed as Laeq over 15 minutes at the façade of a noise sensitive location, shall not exceed the daytime background level by more than 10 dB(A) and shall not exceed the background level for evening and night time. Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level.

7. Under item 8 of the request for further information, the Planning Authority noted the lack of information included within the EIAR regarding archaeology. It is noted that an archaeological assessment report has been prepared, however, it is noted that the EIAR has not been updated. The applicant is therefore requested to provide an update of the archaeology section of the EIAR.

Comhairle Chontae Atha Cliath Theas

PR/0455/22

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REG. REF. SD21A/0167

LOCATION: Profile Park, Baldonnell, Dublin 22

Colm Harte

Colm Harte,
Senior Executive Planner

ORDER: I direct that **CLARIFICATION OF ADDITIONAL INFORMATION** be requested from the applicant as set out in the above report and that notice thereof be served on the applicant.

Dated: 07/04/2022

jjohnston

Jim Johnston,
Senior Executive Planner