



## EIA Scoping Opinion Request Hownsgill Park Energy Facility

Land off Knitsley Lane, Hownsgill Industrial Estate, Consett, Durham DH8 7EQ  
For:

**Project Genesis Ltd**

CRM.0138.001.PL.R.001

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### EIA Scoping Opinion Request

Project:	Howngill Park Energy Facility
For:	Project Genesis Ltd
Status:	<b>Final updated</b>
Date:	October 2020
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### Drawings

Drawings	Title
AL (0) 001 Rev D	Proposed Site Plan
AL (0)002	Proposed Elevations
AL (0)003	Proposed Roof Plan
CRM.0138.001.PL.D.001	Location Plan

# 1 INTRODUCTION

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## 1.1 Introduction

- 1.1.1 Enzygo Ltd has been instructed by Project Genesis Ltd to coordinate an Environmental Statement (ES) to accompany a full planning application for the development of a Combined Heat and Power Facility ( 'Energy Facility') on Land off Knitsley Lane in Hownsgill Industrial Estate Consett, Durham. The application site is allocated for employment.
- 1.1.2 The proposed development will generate low carbon electricity and provide a sustainable solution for managing residual commercial waste to significantly reduce waste otherwise sent to landfill or for export abroad. The Energy Facility will have a 15MWth capacity (3.48MWe), enabling it to process up to a maximum of 60,000 tonnes per annum of non-hazardous Refuse Derived Fuel (RDF) produced from various types of waste locally arising, mainly commercial and industrial waste from 4 to 5 local sources/suppliers.
- 1.1.3 That the waste is 'locally arising' means it is coming from the local area within 15 miles of the site. That the waste is 'non-hazardous' means it is derived from the materials thrown away by households or by commercial enterprises and industrial sites and that it is not defined as a hazardous waste (which requires specialist collection, management and disposal). That the site will use 'residual' waste materials only, means that the feedstock will be solely materials left over after recycling/treatment that would otherwise be disposed of to landfill, or exported abroad for disposal. All materials are intended to be pre-processed and brought to site simply to be put in the fuel store for supply into the EFW technology.
- 1.1.4 The proposed development is actively incorporating Combined Heat & Power (CHP) and so a large water tank (max height 25m) is included in the proposal. This ensures adequate pressure at the bottom of the tank to distribute heated water via a district heating system. It is envisaged recipients of heat and power would be on adjacent occupiers on the industrial estate and the forthcoming development to the west (which includes a hospital, a care home and a leisure centre). The proposed development will also incorporate three gas engines (3MWe each) so that CHP and power agreements can continue to be met during maintenance shutdowns of the plant.
- 1.1.5 The CHP element of the scheme is a crucial element of the wider energy hub strategy for Hownsgill Industrial Estate and Project Genesis. In combination with other developments (such as the solar development), the potential is to create reliable sources of zero and low carbon heat and power which can be supplied at advantageous rates to current and future commercial developments. This directly supports objectives for a circular economy and to promote a Green Recovery, with a strong pull to attract inward investment to Consett through the availability of low carbon, lower cost energy.
- 1.1.6 This Environmental Impact Assessment Scoping Report is submitted to Durham County Council ('DCC') as Local Planning Authority in accordance with Regulation 10(1) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, in order to request their Scoping Opinion on the information to be provided as part of an ES as the proposed development includes a waste disposal installation for the combustion of non-hazardous waste with a capacity exceeding 100 tonnes per day.

## 1.2 Purpose of Report

- 1.2.1 The Scoping Report has been prepared by Enzygo Ltd on behalf of the applicants to identify the likely effects of the scheme on the environment which, in turn, informs the scope of the assessments that are proposed to be carried out. It is intended that this information be used to assist stakeholders when assessing the development proposals and the Council in reaching

its Scoping Opinion on the extent of the matters to be considered as part of the EIA and resultant ES.

### 1.3 Benefits of the Proposed Development

- 1.3.1 The proposed development is part of a much wider strategy for a Hownsgill Sustainable Energy Park as a hub to attract inward investment and create jobs for Consett on the site of the former steel works and coking works. This project will deliver renewable and low carbon heat and power to companies on the Industrial Park and nearby developments. The overall aim is to continue to develop the redundant land and to produce an attractive and modern commercial area to act as a next chapter in the economic development of Consett, following the closure of the Steel Works some time ago. In addition, the proposed development will provide much-needed employment opportunities for local people and facilitate million pounds worth of investment into the area.
- 1.3.2 The RDF will be used as a fuel to generate low carbon electricity and heat at the proposed Energy Facility which will be used to power nearby consented and proposed developments. The CHP component is envisaged to provide heat and power for nearby occupiers within Hownsgill Industrial Estate and proposed developments included in the Consett Masterplan prepared by Ryder below.



Figure 1.1 Illustrative Masterplan for Consett

- 1.3.3 This masterplan was submitted to Durham County Council ('the Council') as representations for the emerging New Local Plan which is now at an advanced stage and therefore significant weight can be afforded to the plan. Project Genesis Ltd ('the Applicant') have agreed a 'Statement of Common Ground' with the Council and the Project Genesis Masterplan has been accepted, given its undertaking to support delivery going forward.

- 1.3.4 It is envisaged that the Energy Facility will provide electricity and heat for the Derwent View Well Being Site illustrated in Site G to the north of the site, and possibly residential development (approximately 110 market houses) proposed at Site K to the east of the site.

#### **1.4 Structure of Report**

- 1.4.1 This EIA Scoping Report considers the environmental context of the Energy Facility and its potential environmental impacts. Where impacts are considered to have the potential to cause significant environmental effects, these are identified and the proposed approach to be used to characterise the impacts and understand the significance of their effects is outlined. This Scoping report also outlines the issues perceived to be 'non-significant' which it is considered do not require formal assessment as part of the EIA.

- 1.4.2 The structure of this report is set out as follows:

- ) Section 1 introduces the proposed project and sets out the requirement for an EIA of the scheme.
- ) Section 2 sets out the site description and context.
- ) Section 3 sets out the planning policy.
- ) Section 4 sets out details of the proposed development.
- ) Section 5 details those topics that it is proposed to assess as part of the EIA and include within the resultant ES. This Section also sets out the proposed scope of the assessment in relation to each topic area. Potential mitigation and enhancement opportunities are also considered).
- ) Section 6 sets out topics to be scoped out of the resultant ES.
- ) Section 7 sets out proposed scope of Landscape and Visual Impact.
- ) Section 8 sets out the proposed scope of Geo-Environmental.
- ) Section 9 sets out the proposed scope of Noise & Vibration.
- ) Section 10 sets out proposed scope of Air Quality and Human Health.
- ) Section 11 sets out proposed scope of Climate Change.
- ) Section 12 sets out proposed scope of Socio-economic.
- ) Section 13 sets out proposed scope of Amenity.
- ) Section 14 sets out proposed scope of Combined and Secondary Impact.
- ) Section 15 provides a summary and conclusions of this report.

## 2 SITE DESCRIPTION AND CONTEXT

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### 2.1 Introduction

2.1.1 In order to identify the scope of issues that will need to be addressed by any planning application (and associated ES), it is necessary to understand the characteristics of the site and the surrounding area that may be affected by the proposed development.

### 2.2 The Application Site

2.2.1 The site is located within the administrative boundary of County Durham Unitary Authority, the determining authority for the planning application.

2.2.2 The application site is approximately 1.28 hectares and is located within Howngsill Industrial Estate in Consett, Durham DH8 7EQ (Grid Reference: E 410469 N 549814). The application site is indicated below:



**Figure 2.1: Application site, approximate location with star**

2.2.3 The application site is located approximately 350m south-west of Templetown which is a southern suburb of Consett. Surrounding development is commercial/industrial.

### 2.3 Access

2.3.1 Access to the site is gained from the A692 Castleside/Gateshead road to the north and Knitsley Lane to the east of the proposed development site.

2.3.2 Consett is situated to the northwest of County Durham. It is at the centre of a number of transport corridors. The A691 links the north-west of the county with Durham City and the A692 provides connectivity to Gateshead and Newcastle. The A693 links directly to the A692 and provides access to Stanley, Chester le Street and the A1 motorway.

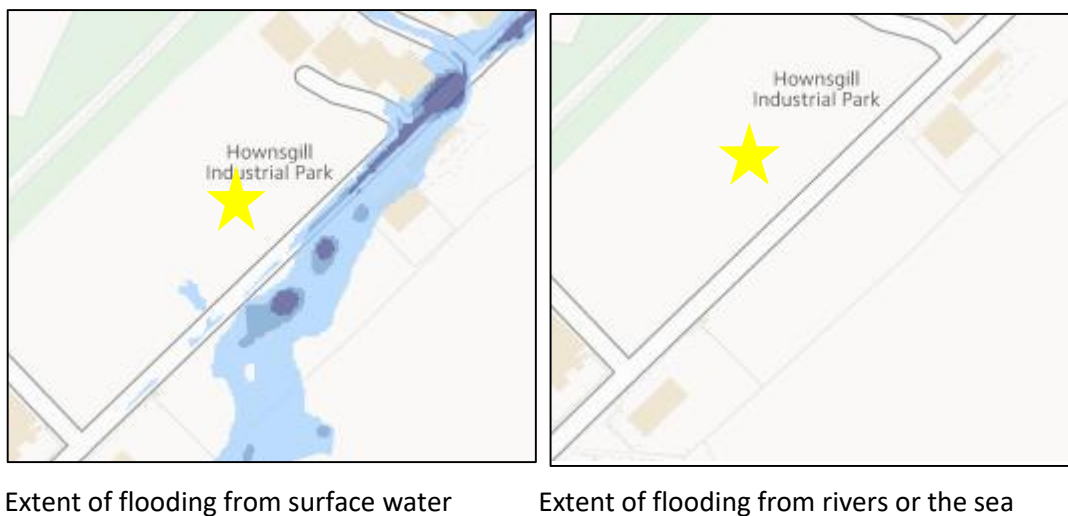


## 2.4 The Surroundings

- 2.4.1 The site is part of a wider plot and will share the same highway entrance as other business in Hownsgill Industrial Park.
- 2.4.2 The site lies adjacent to the path of the Consett-Sunderland railway and the Wakerley Way C2C Cycle Route. The wider area is populated by commercial/industrial units and retail further north.
- 2.4.3 The nearest residential areas are approximately 350m away to the north (The Chequers) and 430m away to the east (off Knitsley Lane).

## 2.5 Flood risk

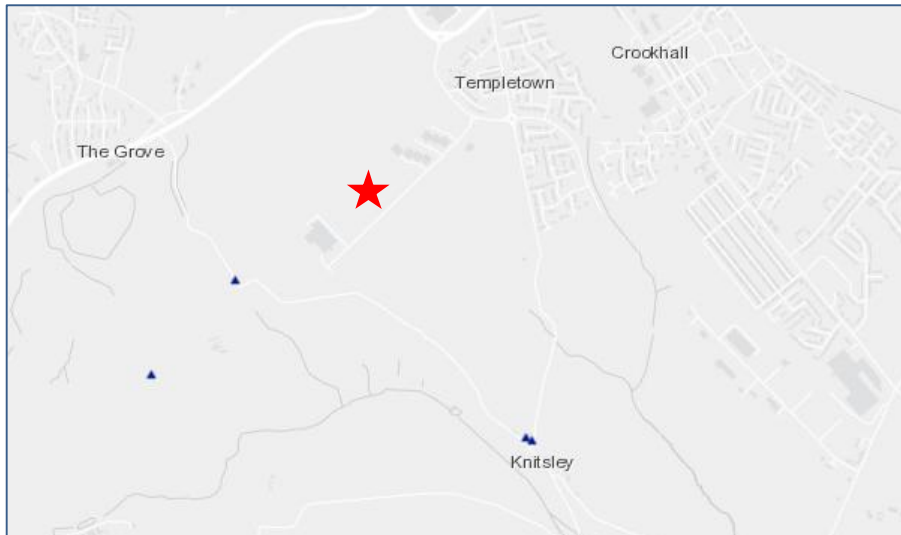
- 2.5.1 The Environment Agency Flood Map for Planning identifies that there is no risk of flooding from the rivers or the sea. There are some areas of low risk of surface water flooding as indicated in figure 2.3 below.



**Figure 2.2: Flood Map for Planning**

## 2.6 Heritage Assets

- 2.6.1 Historic England identifies that there are no heritage assets within the site or immediately adjacent the site.
- 2.6.2 However, there are recorded heritage assets within the wider surroundings as shown in the map below, namely:
  - ) Grade II Listed - Accommodation arch under former railway for road to Knitsley (470m SW);
  - ) Grade II\* Listed – Hownes Gill Viaduct (1km SW);
  - ) Grade II Listed – Barn west of High Knitsley (1km South); and
  - ) Grade II Listed – High Knitsley Farmhouse (1km South).



**Fig 2.3: Heritage Assets Search – Historic England**

## **2.7 Planning History**

- 2.7.1 A review of the Local Planning Authorities planning application webpage has been undertaken and the site is not subject to any pending or recently decided planning applications.
- 2.7.2 It is noted the site comprises open land following its previous use as a quarry and for steel works. The site has remained vacant for 33 years.

### 3 PLANNING POLICY CONTEXT

#### 3.1 Introduction

- 3.1.1 A full review of planning policy has not been undertaken as this Scoping Opinion Request focusses on environmental impacts rather than planning policy.
- 3.1.2 An initial review has been undertaken and this identifies that the site is located within a site allocated for employment land within the emerging County Durham Plan as identified in figure 3.1 below.

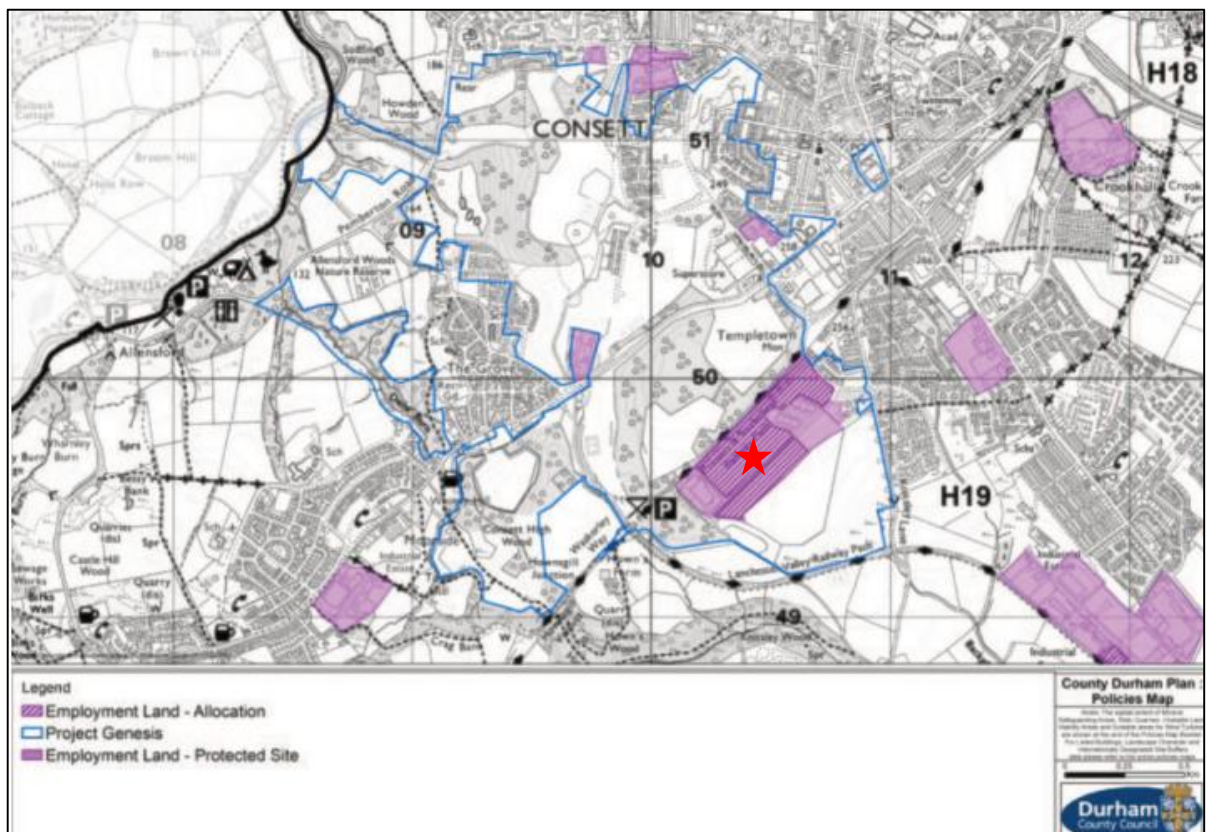
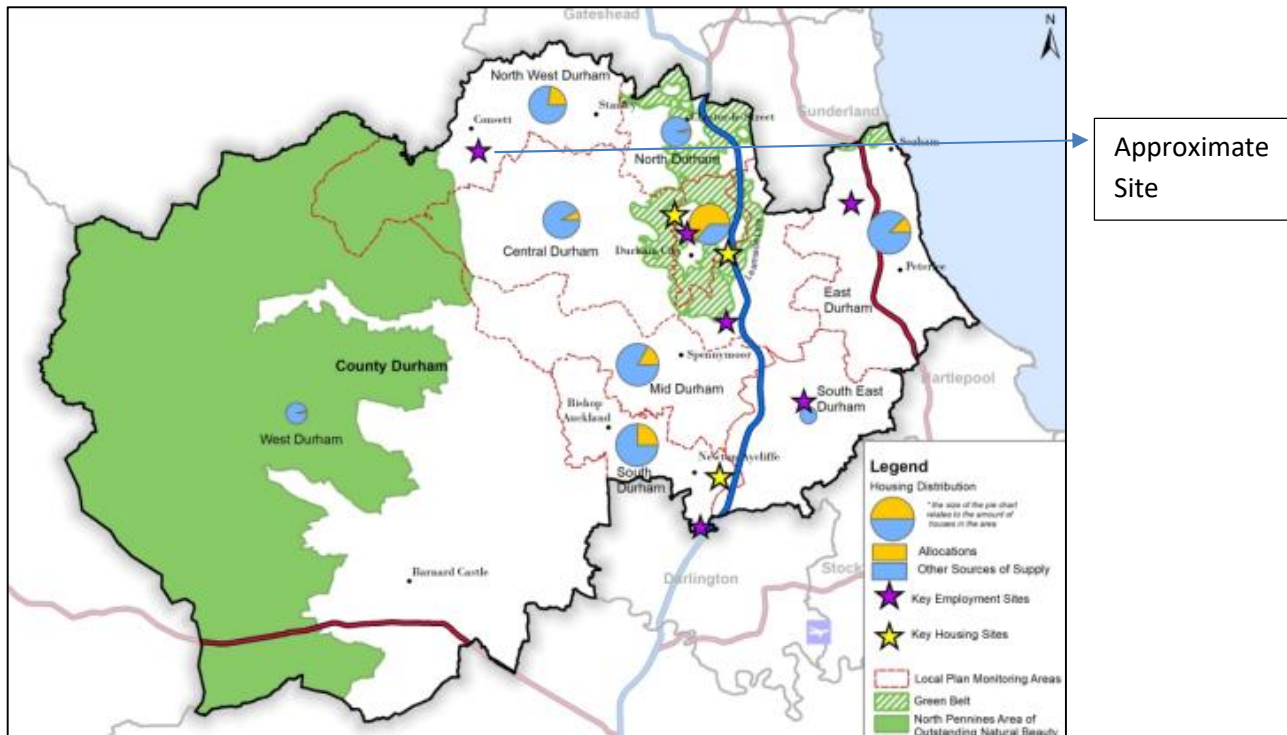


Figure 1.1: Local Planning Policies Map

- 3.1.3 The Emerging Durham Plan is in its advanced stage and has undergone extensive consultation and hearings. Following the completion of examination hearings, the Council is currently consulting on the main modifications considered necessary for the plan to be found 'sound'. The emerging Durham Plan is a material consideration and significant weight may be afforded due to the advanced stage of the plan.



**Figure 3.2: Policy Map**

- 3.1.4 The map shows that the North Pennines Area of Outstanding Natural Beauty (AONB) lies to the west of the site.
- 3.1.5 Whilst a separate planning statement will be submitted with the application, the relevant planning policies for each topic area will be referred to in the respective chapters of the ES with reference to the following documents:
- Government’s National Planning Policy Framework.
  - Government’s Planning Practice Guidance.
  - The adopted Statutory Development Plan.

## 4 PROPOSED DEVELOPMENT

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### 4.1 Proposed development

4.1.1 The proposed development will be within the area identified in red on the Location Plan Drawing no. CRM.0138.001.PL.D.001 attached at Appendix 1. The Energy Facility as illustrated on the accompanying Site Plan Drawing AL (0) 001 Rev D (attached at Appendix 2) will comprise the following:

- ) Water Tank
- ) Gas fired back up boilers
- ) Furnace
- ) Chimney
- ) Bag House
- ) Damper
- ) Multicyclone
- ) Transformer
- ) Dry coolers
- ) Security Hut
- ) Weigh bridge and
- ) Parking and deliver lorry drop off hardstanding areas and access road.

4.1.2 A full planning application will be submitted for the development proposals for the Council's approval. This plan sets out the proposed site layout which will be subject to change following the results of the EIA process and consultation requirements.

### 4.2 The Energy Facility

4.2.1 The facility is made up of two elements:

- ) The Fuel Store which will receive and store the materials prior to processing and,
- ) The Energy Plant which will combust the material to produce energy and heat.

#### Inputs

4.2.2 The facility will process up to a maximum of 60,000tpa of non-hazardous residual waste materials from a variety of local sources, mainly commercial, which will be collected and delivered to the site.

#### Delivery

4.2.3 The proposed development will provide access arrangements which will ensure safety of its users.

4.2.4 Upon reception at the site, each delivery vehicle will be weighed at the weigh bridge and the waste screened to ensure compliance with the acceptance criteria.

4.2.5 Delivery vehicles will then be routed within the site to access the fuel store.

4.2.6 The fuel store will operate at negative pressure and air knives will be used to ensure odours are not released as HGVs empty their loads into the building.

### Storage and transportation of materials

- 4.2.7 The material will be removed from the storage silo by an internal crane which will load it onto a push floor.
- 4.2.8 The material will then be pushed by ladders (steel structures) onto a belt conveyor which will move it into the Energy Plant. The material is then transported into a hydraulic in-feeding unit which feeds the material into the furnace.



Figure 4.1: Example of infeed system

### The Furnace & Boiler House

- 4.2.9 The material is transported through the furnace by a hydraulically driven moving grate and is subsequently dried, gasified, and combusted.
- 4.2.10 The temperature in the furnace is controlled between 925°C and 975°C. Low NOx emissions and complete combustion is reached by specially designed stage combustion.
- 4.2.11 The grate is cooled by the fresh air under the grate and flue gas recirculation.
- 4.2.12 Most of the ash falls from the end of the moving grate into the wet ash conveyor. Fine ash that goes through the grate also falls in the wet ash conveyor and is automatically transported to the ash container.
- 4.2.13 The wet system prevents dust from spreading in the boiler house.



Figure 4.2: Example of Wet ash conveyor

## Steam Cycle

- 4.2.14 Maximum electrical output is generated by the combination of high-pressure steam within the steam turbine.



**Figure 4.3: Example of Steam turbine**

### Outputs

- 4.2.15 The facility will produce approximately 3.48MW of electricity which will be used to power local developments and residences.
- 4.2.16 The facility will also produce heat for supply via a district heating scheme to be developed to support adjacent development.
- 4.2.17 The connection will be provided by a DNO and as such falls under the statutory authorities' permitted development rights.
- 4.2.18 Residual outputs that cannot be processed, including ash (both bottom and fly ash) will be removed for off-site reuse and disposal.

### Air Emissions

- 4.2.19 All stack emissions will be kept within IED (Industrial Emission Directive) Limits.

### Noise emissions

- 4.2.20 The estimated specifications of noise emission will be carefully considered in the Noise and Vibration chapter.
- 4.2.21 In the turbine room, control room and stacks will have silencing equipment installed.

### Odour Emissions

- 4.2.22 The Fuel Store and Energy Plant will be equipped with a negative pressure system to prevent fugitive release of odorous air.

### **Built Development**

4.2.23 The proposed elevations provided in Drawing no. AL (0) 002 provide details of the proposed built structures including:

- ) An access road and associated weighbridge
- ) The Energy Plant
- ) The Fuel Store
- ) The stack, currently assumed at a height of 50 metres will be determined by emission analysis and will be located in the processing building
- ) 3x 3MWe Gas Powered Engines with chimney flues and
- ) Ancillary buildings and equipment including dry coolers, water tank, weighbridge and security etc.

### **Storage of Material**

4.2.24 All material will be carefully stored in sealed units in accordance with Environment Agency guidelines.

4.2.25 The storage silo is part of the system, which is an automatic storage and dosing system. It consists of a trolley with a scraper arm which moves the input to the conveying system that feeds the plant.

### **Water**

4.2.26 The facility will utilise stored recycled water. This will originally be filled from mains supply and recycled for continuous re-use.

### **Odour**

4.2.27 The buildings will operate at negative pressure with fast acting roller shutter doors and air knives. A deodorising misting system will also be in use periodically within the building.

### **Operation**

4.2.28 The plant will operate seven days per week all year round with pre-planned short periodic shut downs for maintenance. It is proposed to accept deliveries 12 hours per day, between 7am and 7pm Monday to Friday and between 7am and 1pm on Saturday.

### **Traffic**

4.2.29 All vehicle deliveries and exports would take a route would take a route to/from the A692 Morrisons Roundabout. Given the source of supplies, it is intended that, from this roundabout, deliveries would split 50:50 to the north east arm of the A692 and to the south west direction of the A692.

## **4.3 Staff**

4.3.1 The site will operate on 3 shifts each with 3 staff. These will run from 6am-2pm, 2pm-10pm and 10pm-6am. There will be no separate day-only office staff.

4.3.2 Operatives will run the plant, oversee deliveries and administer the facility.



## 5 PROPOSED CONTENT OF THE ENVIRONMENTAL STATEMENT (ES)

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### 5.1 Background

5.1.1 The purpose of the ES is to detail any likely significant effects of the development on the environment and to describe the measures envisaged to prevent, reduce, or where possible offset any significant adverse effects.

5.1.2 The EIA Regulations require an EIA to be carried out in support of a specified range of major development proposals. Within Planning Practice Guidance, the purpose of EIA is set out as below:

*'The aim of Environmental Impact Assessment is to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes into account in the decision making process...The aim of Environmental Impact Assessment is also to ensure that the public are given early and effective opportunities to participate in the decision making procedures'.*

5.1.3 This formal Scoping Opinion Request reviews the potential for significant environmental effects in each of the topic areas identified above and has prepared a proposed scope for the ES.

### 5.2 EIA Methodology

5.2.1 The ES will follow established EIA procedures, in accordance with the Regulations and associated guidance.

5.2.2 The ES will set out the process followed during the EIA including the methods used for the collection of data and for the identification and assessment of impacts. Any assumptions made will be clearly identified.

5.2.3 Impacts will be considered based on their magnitude, duration, and reversibility. Cumulative and combined effects will also be considered where appropriate. Significance will be evaluated based on the scale of the impact and the importance or sensitivity of the receptors, in accordance with standard assessment methodologies (major, moderate, minor, and not significant).

5.2.4 The significance of an effect will be determined by the interaction of two factors: first being the value, importance or sensitivity of the environmental receptor or resource being affected; and second, the scale of magnitude, or severity of the impact or change. Criteria will be developed to determine the sensitivity of a receptor and the magnitude of change for each environmental topic.

5.2.5 Account will be taken of timescale, permanence and whether the effects are adverse or beneficial or reversible. Where likely significant environmental effects are identified in the assessment process, measures to mitigate these effects will be put forward in the form of recommendations to be undertaken as part of the project development.

5.2.6 The scoping of each chapter in relation to the issues to be considered when assessing the impact of the proposed development is set out from Chapter 7 of this report under the heading of the topic area.

### 5.3 Baseline Environment

- 5.3.1 A fundamental aspect of any EIA is to determine the baseline environmental conditions prevailing at the application site. These form the benchmark against which predicted changes resultant from the development can be assessed to determine the magnitude of any impact.
- 5.3.2 The EIA associated with this scheme will include an assessment of the existing conditions at the site both without (existing baseline) and with the development (plus one, five and ten years).

### 5.4 Proposed Cumulative Schemes

- 5.4.1 Cumulative impacts are those effects of the development that may interact in an additive or subtractive manner with the impacts of other developments which are not currently in existence but may be at the time the development is implemented. A study of known proposed developments in the locality that could result in cumulative impacts has been undertaken in association with the Council.
- 5.4.2 The proposed developments to the west will also be considered as part of the cumulative assessment. This Scoping Request also asks for the council to identify any other developments and applications which should be taken into account for specific topic assessments.

### 5.5 Proposed structure of the ES

- 5.5.1 The Environmental Statement will address the direct effects of the Energy Facility, in addition to the likely indirect, secondary, cumulative, transboundary, short, medium, and long term, permanent, temporary, beneficial, and adverse effects. Mitigation and enhancement opportunities can be identified at any stage in the evolution of a scheme. The EIA is an iterative process that is used to help refine a scheme with the objective of reducing any adverse environmental effects that could be caused whilst increasing its positive effects. Mitigation may take the form of avoidance, reduction, or compensation. The concluding chapters will provide a summary of the cumulative and residual impacts.
- 5.5.2 The resultant ES will contain the full text of the EIA with the proposed structure below:
  - ) **Chapter 1: Background, Introduction and Context** – This section will include narrative on the format and content of the ES together with information regarding the applicant and teams.
  - ) **Chapter 2: Approach to Environmental Statement** – This section will outline the legislative context of the ES
  - ) **Chapter 3: The Site and its Setting** – This chapter will describe the general physical and environmental characteristics of the application site and its surrounding environs.
  - ) **Chapter 4: Planning Policy Context** – This chapter will include information regarding the planning history of the site and a summary of the policy context at the national, regional, and local level. The relevant policies will be reviewed, and key points of relevance summarised.
  - ) **Chapter 5: Proposed Development** – This chapter will describe the development for which planning permission is sought including the layout of the proposed facility together with the description of the processes to be undertaken on site and will set out the basis against which the EIA will be conducted.
  - ) **Chapter 6: Need, Alternatives and Sustainability** – Schedule 4, paragraph 2 of The Regulations requires that all environmental impact assessments should include information

on the main alternatives studied and an indication of the main reasons for choosing the selected option, with reference to the environmental effects.

5.5.3 Technical ES Topics:

- ) **Chapter 7:** Landscape and Visual Impact;
- ) **Chapter 8:** Geo-Environmental;
- ) **Chapter 9:** Noise & Vibration;
- ) **Chapter 10:** Air Quality and Human Health;
- ) **Chapter 11:** Climate Change;
- ) **Chapter 12:** Socio-Economic;
- ) **Chapter 13:** Amenity;
- ) **Chapter 14:** Combined and Secondary Effects; and,
- ) **Chapter 15:** Summary & Conclusions.
- ) **Non-Technical Summary (NTS):** As required within the EIA Regulations. This document will provide a summary of the key issues and findings of the EIA in non-technical language

5.5.4 **Volume two** will provide individual technical assessments for all topics.

5.5.5 **Volume three** will provide the planning and ES drawings and plans associated with the submission.

5.5.6 **A planning submission** will also include the Planning Statement, Statement of Community Involvement, application forms and certificates.

## 6 TOPICS TO BE SCOPED OUT OF EIA

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### 6.1 Introduction

- 6.1.1 The aim of the Scoping Stage is to focus the EIA on those environmental aspects that may be significantly affected by the Energy Facility. In so doing, the significance of impacts associated with each environmental aspect becomes more clearly defined, resulting in certain aspects being considered 'non-significant'.
- 6.1.2 The following provides a summary of those issues, which have been considered during the preparation of this Scoping Report, and which are not considered likely to lead to significant environmental effects. It is proposed that these will therefore not be considered in the Environmental Statement.

### 6.2 Hydrology, Flood risk and Drainage

- 6.2.1 It is proposed that Hydrology and Flood Risk is scoped out of the Environmental Statement.
- 6.2.2 The Environment Agency Flood Map indicates that the site is at a low risk of flooding. However, a full Flood Risk Assessment and associated drainage strategy will be provided in support of the planning application in view of the automatic requirement for such arising from the size of the application site exceeding 1ha.
- 6.2.3 The assessment will specifically consider the proposed use of the site as an energy plant and any potential impacts arising.
- 6.2.4 A drainage strategy will be submitted to address drainage requirements and interrelationships with wider drainage infrastructure serving the industrial estate.

### 6.3 Ecology

- 6.3.1 In terms of ecology, there are no statutory site designations or potential habitat for species on site or in the near vicinity. It is therefore proposed to scope out ecology from the EIA. The planning application will nevertheless fully assess and mitigate potential impacts on ecology, and demonstrate net gain in biodiversity enhancement through the submission of an Ecological Impact Appraisal, Air Quality Assessment and Noise Assessment which will consider impacts on ecology from development, operations and emissions.

### 6.4 Heritage

- 6.4.1 The proposed Energy Facility is located within an industrial estate already consented for major commercial development. The proposed development contains proposals for the development of high-quality industrial buildings and structure suitable for its setting within the industrial estate. Given previous site history and previous remediation under previous consents, it is contended that there will be no potential for below ground archaeology. Vertical elements in the form of the stack gives rise to the potential for impacts on receptors further afield. These are considered to be limited to setting impacts which it might be confirmed are not present following photographic survey. It is proposed that a Heritage Settings Impact Assessment should suffice to assess potential impacts on heritage assets, rather than requiring its inclusion with the ES.

### 6.5 Transport

- 6.5.1 The proposed development will generate up to 22 HGV movements and a maximum of 18 car movements per day. On average, there would be less than two HGV movements and no car movements during each weekday network peak hour. This level of vehicle movement is considered to be insignificant and as such a transport chapter will not be provided as part of

the ES. A stand-alone transport statement will, however be provided in support of the planning application.

## 7 LANDSCAPE AND VISUAL IMPACTS

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### 7.1 Introduction

- 7.1.1 The process of Landscape and Visual Impact Assessment (LVIA) will consider the potential effects of the proposed development on defined landscape and visual receptors. These will broadly include:
- ) Individual landscape features and elements;
  - ) Landscape character and quality [condition]; and
  - ) Visual amenity and the people who view the landscape.
- 7.1.2 A detailed description of the proposed methods of assessment will be included in the ES chapter. Consultation about method will be undertaken with the LPA and any feedback considered in the final outputs as appropriate.
- 7.1.3 The site has been the subject of previous pre-planning consultation during 2017 during which it was noted that there would be a need to consider potential effects on the Hownsgill Viaduct in liaison with a suitably qualified specialist (Historic Environment). Also, from this pre-application consultation, there is a general requirement from the LPA for sustainable drainage systems to be included as part of the development which has potential synergy with a landscape mitigation strategy for the site. Proposals for drainage will be reviewed in consultation with the project drainage specialists in order to identify appropriate landscape mitigation for the development.

### 7.2 Distinction between Landscape and Visual Effects

- 7.2.1 The assessment will include consideration of both effects on landscape character and on visual amenity. Landscape and visual effects are two distinct but related areas, which are assessed separately in accordance with the approach outlined below. Landscape and visual effects do not necessarily coincide and can be beneficial or adverse. A distinction will be drawn between landscape and visual effects:

**Landscape** - relates to the effects of the proposals on the physical and other characteristics of the landscape and its resulting character and quality.

**Visual** - relates to the effects on views experienced by visual receptors e.g. people including residents, footpath users, tourists.

### 7.3 Published Guidance

- 7.3.1 The LVIA will be undertaken by qualified Landscape Architects who are experienced in undertaking such assessments following relevant best practice outlined in published industry guidance:
- ) *Guidelines for Landscape and Visual Impact Assessment*, 3<sup>rd</sup> Edition [3663] Landscape Institute and the Institute for Environmental Management and Assessment;
  - ) *Landscape Character Assessment Guidance for England and Scotland* [2002]; The Countryside Agency and Scottish Natural Heritage; and
  - ) *Guidelines for Environmental Impact Assessment* [2004]; Institute for Environmental Management and Assessment.

## **7.4 Approach to the LVIA**

7.4.1 The LVIA will be undertaken in stages which will generally include:

7.4.2 Baseline data collection via desk-top study, consultation and fieldwork;

- ) Description of the baseline landscape character and visual amenity of the site and surrounding area which identify the relevant landscape and visual receptors [including representative viewpoints] determining their sensitivity to change, determining the extent of visibility;
- ) Description of the magnitude of change in the landscape and visual amenity as a consequence of the proposals;
- ) Description of the potential landscape and visual effects arising; and
- ) Development of strategic mitigation proposals to assist in reducing adverse landscape and visual effects or provide compensation where this is unavoidable and where possible provide enhancements.

7.4.3 Baseline information regarding landscape features and sensitive visual receptors and the likely change in the landscape character and visual amenity of the site and its surroundings will be used to identify potential effects and inform the final scheme as appropriate.

7.4.4 Strategic mitigation measures will ideally be developed in tandem with the proposed layout to minimise adverse effects as part of an iterative design process. Options for mitigation measures such as screening components will be investigated and included as appropriate.

7.4.5 Criteria thresholds for assessing the degree of change as a result of the development will be established and reviewed to ascertain the magnitude of change in the landscape and in views.

## **7.5 Sensitivity of Receptors, Magnitude of Change and Significance of Effects**

7.5.1 The significance of effects on both the landscape and visual receptors within the study area will be ascertained by cross-referencing the sensitivity of the baseline landscape and or visual receptor the magnitude or amount/scale of change that is expected as a result of the proposed development and in relation to any other influencing factors.

7.5.2 A description of how judgements are made criteria used and outcomes will be provided and described in the ES chapter.

## **7.6 Output**

7.6.1 The LVIA will be prepared in a written format for incorporation in an Environmental Statement which will accompany the planning application for the proposed development. The chapter will summarise the findings of the LVIA and will typically comprise descriptive text and supporting tables, maps, plans and photographs.

7.6.2 Typical components include:

- ) Presentation of baseline conditions desk-based and field-based study.
  - o Description of site-specific methods in line with industry guidance.
  - o Defined study area and potential constraints.
  - o Review of relevant background information such as published landscape character assessment and relevant planning policy.
  - o Evidence of baseline visual amenity and landscape character, e.g. representative viewpoints/views, and photographs of the study area.

- 7.6.3 Assessment of landscape and visual impacts in relation to the proposed development with judgements, identification/evaluation of significant effects. Written commentary supported by summary tables, maps, and plans, as necessary.
- ) Consideration of the need for and identification of suitable mitigation proposals, in collaboration with the design team and which seek to avoid or reduce adverse landscape and visual effects or provide compensation where unavoidable and where possible enhancements;
  - ) Identification of residual impacts on the landscape and visual resource [nominally Year 15];
  - ) Identification and consideration of the cumulative effects on the landscape visual resources for identified projects; and
  - ) Supporting illustrative material which may comprise plans figures and plates identifying aspects such as (not restricted to) topography, Zone of Theoretical Visibility [ZTV], viewpoint locations, landscape constraints, landscape character and strategic mitigation measures.



## 8 GEO ENVIRONMENTAL

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### 8.1 Introduction

- 8.1.1 This EIA chapter will consider the potential impacts of the Proposed Development on geological, groundwater resources and potential sources of ground contamination at the proposed development site.
- 8.1.2 This scoping section sets out the key issues identified and proposes a methodology and standards for assessment of significance in the Environmental Statement.

### 8.2 Baseline Conditions

#### Site History

- 8.2.1 The site has been historically used as part of the quarry to the north, railway to the south and then part of the Consett Steel Works Buildings and the finally open space. There is a risk of metals, hydrocarbons, and asbestos from historic rail activities, but these are not considered to pose a significant risk to a low sensitivity energy use comprising hard standing. Risk is therefore considered low.
- 8.2.2 From the earliest available 1867 OS maps there was a Railway on embankment in the southern corner of the site and fields across the centre of the site. There was also evidence of ground workings in the northern corner of the site. Open fields S. Spring are shown 100m SE. Significant ground workings (Quarry) 0m to 250m N with a building referenced Old Walls 200m NW within the quarry excavations. Railway line is shown 30m NW.
- 8.2.3 In 1896, the railway to the south east is shown as Consett Iron Mineral railway. Ground working to the north of the site are associated with a large quarry to the north of the site now referenced old quarry. Quarry reference old quarry. Old Wall building not shown. High wall of quarry shown 90m N. New sidings and extension of the iron railway shown 150m E. End tip materials deposited off the end of the sidings.
- 8.2.4 There was no significant change in 1921, except for infill of materials in the far southern corner associated with the sidings to the south east. There is a washing shed (Coke) 20m SE. Infill materials from washing shed and sidings extensions to the south of the railway in the southern corner of the site to beyond 250m SE. Air Shaft shown 90m N.
- 8.2.5 There is no significant change shown on the OS Map in 1940. In the surrounding area, the Air shaft and washing shed are not shown. Overhead wires are shown 90m SE of the site.
- 8.2.6 No significant change was recorded in 1961 and the entire site was covered with works buildings in 1961. The access road on the south eastern boundary of the site. Railway and sidings 40m SE. Slag heap 110m SE. Chimneys 110m SW and 150m SW. Residential development 150m N.
- 8.2.7 Works Building is referenced part of the Consett Works (British Steel corporation) is shown on the OS map in 1977. Slag heap is not shown. Tanks referenced 80m SW and 150m NE.
- 8.2.8 Works building is demolished and replaced with open space as shown on the OS map between 1987-1989. In the surrounding area, the access road to the south remains. The railway to the North is shown as dismantled. Railway and siding to the south not shown presumed dismantled. New commercial buildings are shown 100m NW.
- 8.2.9 The site shown as five disused gantries trending NE, SW, and open space in 1993. There is no significant change in the surrounding area.

- 8.2.10 Site is shown as open space and part of the Hownsgill Industrial Park in 2003. There is a dismantled railway to the north shown as path. Surrounding areas are now part of the Hownsgill Industrial Park. An access road to site is shown 100m SE.
- 8.2.11 The most recent OS map for 2020 shows the site as open land. It is noted there is no significant change in the surrounding area.
- 8.2.12 Due to the site's quarry history to the north, there is potential for contaminated soils to be present. The nearby recorded air shaft will need to be considered for further underground workings.

#### **Ground Conditions**

- 8.2.13 Made Ground is shown on the site. Based on its extent this is linked to the presence of the railways and the tailings deposited either side of the railway siding and embankments. The Made Ground is shown to cover the southern part of the site.
- 8.2.14 There are no landslips identified near the site.
- 8.2.15 Records of background soil chemistry for the site shows no exceedance of commercial values.
- 8.2.16 Borehole records close to the site show Made Ground over Alluvial clay and superficial gravels (Diamicton) and bedrock comprising sandstone and mudstone. Coal was encountered at 6mbgl and 15mbgl (0.2 and 0.5m thick).

#### **Ground water**

- 8.2.17 The Ground Sure Report shows that the site is not located within a Source Protection Zone.
- 8.2.18 There are no groundwater abstraction licenses within 500m of the site.

#### **Coal Mining**

- 8.2.19 The site is identified as being within an area of coal mining risk. A Coal Mining report indicates that the site is underlain by one seam which has been worked at shallow depth and last worked in 1924.
- 8.2.20 The recorded seam may be associated with the coal seam recorded 81m north in the groundsure report. No further records of the type of coal seam are recorded in the coal mining report or groundsure report. Further information on the interactive coal authorities website indicates that this coal seam is referenced NE340H with a further seam outcropping 50m north east referenced NE001H. Both of which are unnamed and not referenced as worked. BGS records, also do not provide an indication of the seam names, although BGS borehole records for the site and surrounding area indicate shallow coal at 6m bgl and 15mbgl. (0.20m bgl and 0.5m thick) not worked.
- 8.2.21 Anecdotal evidence indicates this seam may be the Busty seam (up to three feet thick) used by the Fell Coke Works to the north of the site and shown to be thin band in the 1940's Colliery Guardian, however no further records of this exist.
- 8.2.22 The working referenced in the coal mining report are recorded as shallow (less than 30m depth) and are associated with the Brockwell Seam which outcrops 500m to the south west. These works are shown to dip to the north east at shallow angles underneath the site.
- 8.2.23 A check of the interactive Coal Authority website does not reveal any further information with the exception that the site is within a n high risk area and is underlain by shallow historical working (up to 30m depth).

- 8.2.24 In addition, the coal mining report identifies an adit and mineshaft within 20m of the site. This is likely to be the air shaft which was recorded in the historical Ordnance Survey plans and described in the site history section. The coal mining report also indicates that one of these has been backfilled and treated in 1959. Based on its position of the shaft and adit and the conjectured outcrop of the coal seam it is likely that these are related to each other and were related to see if the coal could be accessed initially from adits, until it was found that an air shaft was more appropriate. Further research indicates that there were a number of attempts to drive adits into the coal seams in the area with three positions referenced Crockhall Victory Fell Drift 1 ,2 and 3. Further research also indicates that the shaft is referenced Crookhall Victory Fell Shaft and is 34m deep with an assumed diameter of 2.50m and has been infilled.
- 8.2.25 BGS records indicates superficial materials and Made Ground up to 8m thick.

### **Ground Workings**

- 8.2.26 There are a number of ground workings recorded on the site and within 250m of the site. All of these are related to the quarry to the north of the site and the colliery and coke and washing works associated the Consett Iron Works across the entire site. Other ground workings are associated with the railway embankments associated with the quarry activities, mineral railways, and sidings.
- 8.2.27 Considerable thickness of Made Ground can be expected in the north of the site associated with the quarry, south of the site associated with the railway, and remainder of the site associated with the infill of the site from the redevelopment of the site as the Iron Works. BGS borehole records have identified up to 6.00m of Made Ground most of which is comprises colliery waste and colliery shale. No new significant risks are identified.

### **Hydrology**

- 8.2.28 There are no surface water courses on site and no surface water abstractions within 250m of the site.
- 8.2.29 The nearest is a Smallhope Burn located 502m south. This is not considered to be viable receptor.

## **8.3 Scope of Assessment**

- 8.3.1 The assessment of ground conditions and hydrogeology impacts will be supported and informed by consultation with the EA. Reference will also be made to relevant national planning and legislative policy and guidance.
- 8.3.2 Land contamination is a material planning consideration and developers are required to ensure that a site post construction is 'suitable for use' and cannot be determined as Contaminated Land under Part 2A of the Environmental Protection Act.

## **8.4 Assessment Methodology**

- 8.4.1 The assessment will be informed by a standalone Phase I Desk Study report which will form a Technical Appendix to the ES chapter. The Phase I Desk Study will follow a tiered risk-based approach and would include a conceptual site model (CSM) which details the potential source-pathway-receptor contaminant linkages which may exist on the Site. The results of site investigations to confirm site conditions will also support the ES Chapter.
- 8.4.2 The significance of any identified effect during the operation of the Proposed Development will ultimately be determined with regard to the status, extent, duration, likelihood and magnitude of impact and the sensitivity of the receptor.

- 8.4.3 The assessment will identify any need for mitigation measures to be employed during construction to protect construction operatives, ground and surface water and any off-site receptors. This could include ground investigation, remediation, personal protective equipment, and specific construction techniques.
- 8.4.4 Development of the site will not give rise to any significant effects during the operational phase. Following mitigation, the assessment will report residual effects.

## 9 NOISE & VIBRATION

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### 9.1 Introduction

- 9.1.1 An assessment of the potential impacts of noise and/or vibration generated by the proposed development at the nearby sensitive receptors will be included within the Environmental Impact Assessment/Environmental Statement.

### 9.2 Baseline Conditions

- 9.2.1 The proposed development site is located within Hownsgill Industrial Estate, Hownsgill Park, Consett, Durham. The site would be located on the north-western side of Hownsgill Park adjacent to other industrial/commercial development.
- 9.2.2 To the north of the proposed development site are other commercial businesses on Genesis Way. There is extensive residential development in the north, east and west with sparse residential properties to the south.
- 9.2.3 A baseline noise survey will be undertaken to determine the prevailing noise climate at the nearest noise-sensitive receptors during periods representative of the operational hours of the proposed development which is understood to be 24/7. Therefore, measurements would be made over representative daytime (0700 to 2300 hours) and night-time (2300 to 0700 hours) periods at the weekend and/or during the week subject to agreement with the LPA.
- 9.2.4 The nearest sensitive receptors are identified as:
- ) Residential properties within the Regents Park development to the north;
  - ) Residential properties on Deneburn Terrace, to the west;
  - ) Residential properties on Langdon Close, to the east;
  - ) Hownsgill Farm, to the southwest; and
  - ) Nearby offices on Hownsgill Park.
- 9.2.5 Details of the existing ambient noise climate and prevailing weather conditions during the survey would be made.

### 9.3 Scope of Assessment

#### Operational

- 9.3.1 Operational noise levels would be predicted to the nearest noise-sensitive receptors using the calculation methodology outlined in ISO9613 using the proprietary noise modelling software CadnaA.
- 9.3.2 The resulting predicted noise levels will be used to assess the potential impact of the proposed development in accordance with the guidance contained in British Standard 4142:2014+A1:2019 *Method for rating and assessing industrial and commercial sound*. Reference will also be made to the guideline internal noise levels for night-time operations outlined in British Standard 8233:2014 *Guidance on sound insulation and noise reduction for buildings*.
- 9.3.3 Where considered necessary, mitigation measures will be suggested to ameliorate any potential impacts identified.

### **Construction**

- 9.3.4 Construction noise and vibration will be predicted to the nearest sensitive receptors using the calculation methodologies outlined in British Standard 5228:2009+A1:2014 *Code of practice for noise and vibration control on construction and open sites – Part 1: Noise and Part 2: Vibration*.
- 9.3.5 The resulting predicted noise levels will be used to assess the potential impact of the proposed development in accordance with the appropriate methods outlined in the relevant part of the standard.
- 9.3.6 Where considered necessary, mitigation measures will be suggested to ameliorate any potential impacts identified.

### **Cumulative**

- 9.3.7 The cumulative effect of the proposed development and existing development on the prevailing ambient noise climate will be made using the effect descriptors outlined by the Institute of Environmental Management and Assessment.

## 10 AIR QUALITY AND HUMAN HEALTH

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### 10.1 Introduction

- 10.1.1 The air quality chapter of the ES will consider the likely effects of the proposals on sensitive receptors.
- 10.1.2 Pollutant emission associated with the processes at the Energy Facility ('Ef') will be released through a dedicated stack. This will have the potential to increase pollutant concentrations in the vicinity of the site. The Air Quality chapter will quantify the effects of the increased pollutant concentrations at both human and ecology sensitive locations.
- 10.1.3 This chapter will be prepared with due regard to the requirements of Durham County Council (DCC).
- 10.1.4 The proposed development will require extensive construction works, will generate additional traffic on the local road network and the process itself will generate emissions to air of a number of pollutants. It is, therefore, judged that there is the potential for significant air quality effects, thus it is considered that the Environmental Statement (ES) will need to include an air quality chapter.
- 10.1.5 The air quality chapter will consider the key air quality effects associated with the proposed development. It is anticipated that it will address the following:
- ) the impacts of the construction of the proposed development on dust soiling and concentrations of PM10 during the construction period;
  - ) the impacts of emissions from road traffic generated by the development on concentrations of nitrogen dioxide, PM10 and PM2.5 at sensitive locations along the local road network;
  - ) the impacts of emissions from the main stack and other combustion sources within the development on local air quality conditions; and
  - ) whether any additional mitigation measures will be required to address any significant air quality effects.
- 10.1.6 An odour assessment and a human health risk assessment will also be prepared in support of the application, but these have been scoped out of the ES, as described later.

### 10.2 Baseline Conditions

- 10.2.1 Baseline conditions in the study area will be determined by collating information from a number of sources. Industrial and waste management sources that may affect the area will be identified using Defra's Pollutant Release and Transfer Register, as well as through examination of the Council's Air Quality Review and Assessment reports. Local monitoring data will be taken from the Council's Air Quality Review and Assessment reports and background concentrations will be defined using the national pollution maps published by Defra. Where necessary, dispersion modelling will be undertaken to establish baseline pollutant concentrations. Consideration will be given to the presence of any Air Quality Management Areas or GLA Focus Areas in the study area.

### 10.3 Scope of Assessment

#### Policy Context and Assessment Criteria

- 10.3.1 A summary of all relevant national and local policy and guidance will be provided. Any local policies or guidance (e.g. Supplementary Planning Guidance (SPG)) relating to air quality will also be considered. Relevant air quality standards and assessment criteria will also be set out.

## **Construction Dust Assessment**

10.3.2 Given the size of the development, it is anticipated that a construction dust assessment will be required as part of the air quality chapter of the ES. The assessment methodology will follow that set out in the Institute of Air Quality Management's Guidance on the Assessment of Dust from Demolition and Construction. It will identify the potential for dust to be generated and the sensitivity of the surrounding area and will combine these to determine the risk of dust impacts without appropriate mitigation. This information will then be used to determine the appropriate level of mitigation required to ensure that there are no significant effects.

### **Main Stack Emissions**

10.3.3 The Ef will be required to meet the emissions limits set out in Chapter IV of the European Industrial Emissions Directive (IED) and in the Best Available Techniques (BAT) Reference Document for Waste Incineration (BREF). The air quality assessment will involve modelling emissions from the Ef main stack for all pollutants for which an emission limit is prescribed within the IED and BREF. These are:

- ) Nitrogen oxides (NO<sub>x</sub>);
- ) Particulate matter (PM<sub>10</sub>);
- ) Sulphur dioxide (SO<sub>2</sub>);
- ) Carbon monoxide (CO);
- ) Total organic compounds (TOC);
- ) Hydrogen chloride (HCl);
- ) Hydrogen fluoride (HF);
- ) Ammonia (NH<sub>3</sub>);
- ) Cadmium and thallium (Cd & Th);
- ) Mercury (Hg);
- ) Antimony (Sb), Arsenic (As), Lead (Pb), Chromium (Cr), Cobalt (Co), Copper (Cu), Manganese (Mn), Nickel (Ni), and Vanadium (V);
- ) Polycyclic aromatic hydrocarbon (PAH) (as Benzo[a]pyrene (BaP));
- ) Polychlorinated biphenyls (PCBs); and
- ) Dioxins and furans (PCDD/F).

10.3.4 The release and dispersion of pollutants from the main stack will be modelled using the ADMS-5 dispersion model. The ADMS-5 model will be run using five years of meteorological data from a suitable nearby monitoring site, in accordance with Environment Agency guidance.

10.3.5 Process contributions for each of the pollutants will be predicted at a series of sensitive receptor locations, representing human exposure (e.g. residential properties and schools) and designated sensitive ecological habitats (such as North Pennine Moors Special Area of Conservation). A grid of receptors will also be used to allow the maximum process contribution anywhere in the study area to be identified, and contour plots of concentrations to be presented, where appropriate.

10.3.6 Air quality impacts will be determined using the Environment Agency's air emissions risk assessment guidance for most pollutants, although consideration will also be given to the Institute of Air Quality Management's (IAQM) Planning for Air Quality guidance for key



pollutants (nitrogen dioxide and particulate matter). The assessment will inform the height of the main stack, which will be set at the height at which impacts can be judged 'not significant'.

- 10.3.7 The assessment will also consider emissions from the three gas-fired CHP engines at the site, intended to supply heat and power during shutdowns of the Ef plant (e.g. for routine maintenance), as well as any backup generators.

#### **Road Traffic Emissions**

- 10.3.8 The Ef will generate additional traffic movements on the local road network as feedstock will be provided from local suppliers. It is anticipated that emissions from road traffic will only need to be considered on the roads closest to the facility as once dispersed on the local road network, the changes in traffic will be negligible. Where the impacts of road traffic cannot be screened out based on screening criteria in the IAQM Planning for Air Quality guidance, the assessment of additional road traffic emissions will be undertaken using the ADMS-Road dispersion model, based on traffic data inputs provided by the project team.

#### **Cumulative Impacts**

- 10.3.9 Consideration will be given to any cumulative impacts that may arise during both the construction and operational periods. Emissions from any other nearby industrial sites will either be assessed qualitatively or using air quality assessments submitted in support of proposed sites (if any exist). If there is a need to include any cumulative sites in the dispersion model then additional fees will apply.

#### **Reporting**

- 10.3.10 The conclusions of the air quality assessment will be drafted into an ES Chapter, supported where necessary with technical appendices.

#### **Odour Assessment**

- 10.3.11 The sensitivity of receptors to odours is dependent on the land use and the level of amenity expected by users. Guidance on the assessment of odours for planning, published by the Institute of Air Quality Management (IAQM), describes receptor sensitivity; high sensitivity receptors include residential properties, medium sensitivity receptors include commercial and retail premises, and low sensitivity receptors include industrial units and farms. The immediate area around the Ef site is industrial or farmland, and therefore classified as low sensitivity to odours, although there are some high sensitivity residential receptors adjacent to Knitsley Lane, approximately 500 m to the east. Consideration will also be required for the location of sensitive receptors on the newly consented development to the west (which includes a hospital, care home and leisure centre). Given the distances to sensitive receptors, significant effects are considered highly unlikely, thus it is anticipated that odours can be scoped out of the ES, but a standalone odour assessment report will be completed to support the application.

- 10.3.12 The odour assessment will use an odour risk assessment approach following the methodology published by the IAQM. The assessment will follow a source-pathway-receptor approach and will examine all potential odour releases from the facility (both controlled and fugitive) and the potential risk of odour impacts at nearby, sensitive locations. Where necessary, measures to minimise odour emissions will be recommended, which can be subsequently included in an Odour Management Plan (OMP).

#### **Human Health Risk Assessment (HHRA)**

- 10.3.13 A Human Health Risk Assessment will also be provided as a standalone report to support the application. The study will focus on assessing the effects of human exposure to dioxins and furans and dioxin-like PCBs. It will follow the United States Environmental Protection Agency

(USEPA) Human Health Risk Assessment Protocol (HHRAP). This approach is current best practice in the UK and is often recommended by the UK Environment Agency.

10.3.14 The methodology is designed to address the impacts of human exposure to air emissions via direct inhalation, via uptake through the food chain and drinking water, and via dermal contact with soil and water, due to the operation of the Energy facility.

10.3.15 The assessment will use the most up-to-date published guidance and sources of information available at the time the work is carried out. Specific activities will involve:

- ) identifying sensitive locations where people have the potential to intake pollutants via inhalation, by eating above-ground home-grown vegetables and associated soil, and by eating home-reared beef, chicken and pork, drinking milk from cows kept at home, and eating home-produced eggs. This will be based on examination of maps and photographs; and
- ) assessing the impacts quantitatively using the IRAP-h model developed by Lakes Environmental. This model is widely used for HHRAs throughout the world.

## 11 CLIMATE CHANGE

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- 11.1.1 The EIA Regulations require the applicant to '*...identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on the following factors—...climate*'. This could include, '*...for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change...*'
- 11.1.2 There is limited guidance on the scope and methodology of assessing climate change within the ES, and therefore we will undertake a detailed view on relevant policy and guidance relating to climate change and assess to potential climate change impacts associated with the scheme.
- 11.1.3 This will include a high-level review of carbon savings and an assessment of how climate change may affect the scheme.
- 11.1.4 Where relevant, climate change will be considered within technical assessments, specifically in terms of flood risk. The findings of these technical reports will be summarised within this chapter.

## 12 SOCIO ECONOMIC

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- 12.1.1 The assessment will provide an overview of the economic changes that would arise from the proposed development. It will assess how the proposed development is likely to directly affect the local and regional economies during its construction in terms of capital investment and employment generation.
- 12.1.2 The creation of jobs will result in positive social impacts associated with increased job opportunity and security.
- 12.1.3 The socio-economic assessment will provide full details of the jobs created by the development, and the socio-economic benefits associated with these.

## 13 AMENITY

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- 13.1.1 This chapter seeks to pick up any potential impacts that may not have been considered elsewhere in the ES. This could include issues such as litter, dust, vermin etc which may not be considered within a technical chapter.
- 13.1.2 This chapter will include a review of relevant policy. We will then identify the baseline situation in terms of amenity, and then the potential impacts (un-mitigated) of the development proposed. We will then recommend measures to address any of the impacts identified. A review of any residential impacts will then be undertaken.

## 14 CUMULATIVE AND SECONDARY EFFECTS

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- 14.1.1 The cumulative impact of the development will be identified at the end of the ES, having first considered the individual impacts of the matters performed in the ES, identifying 'combined effects' and 'secondary effects'. The combined effects will consider inter-relationships within the development itself, such as construction and transport affecting the environment. The secondary effects will be assessed based on any comparable development schemes within the immediate area.
- 14.1.2 Should specific developments be considered pertinent to the cumulative impact of the scheme (and therefore should be included in the consideration of secondary cumulative effects), details are requested to be included in the Scoping Opinion by the Council
- 14.1.3 The cumulative impacts will be identified, and mitigation proposed in relation to any significant or other elements of impact that have been identified.

## 15 CONCLUSIONS

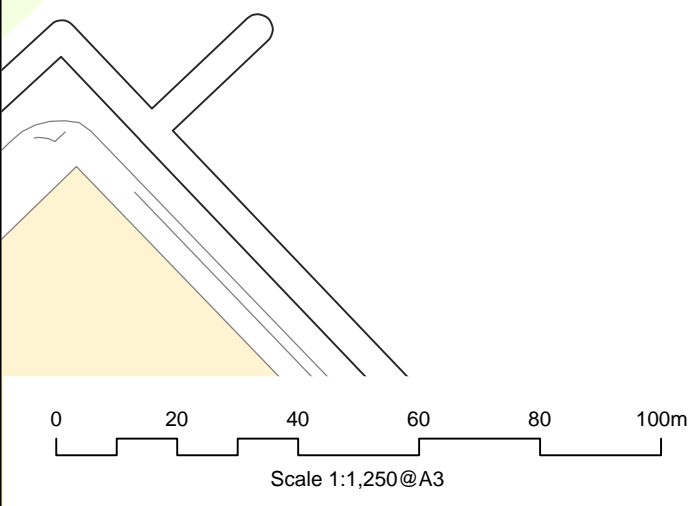
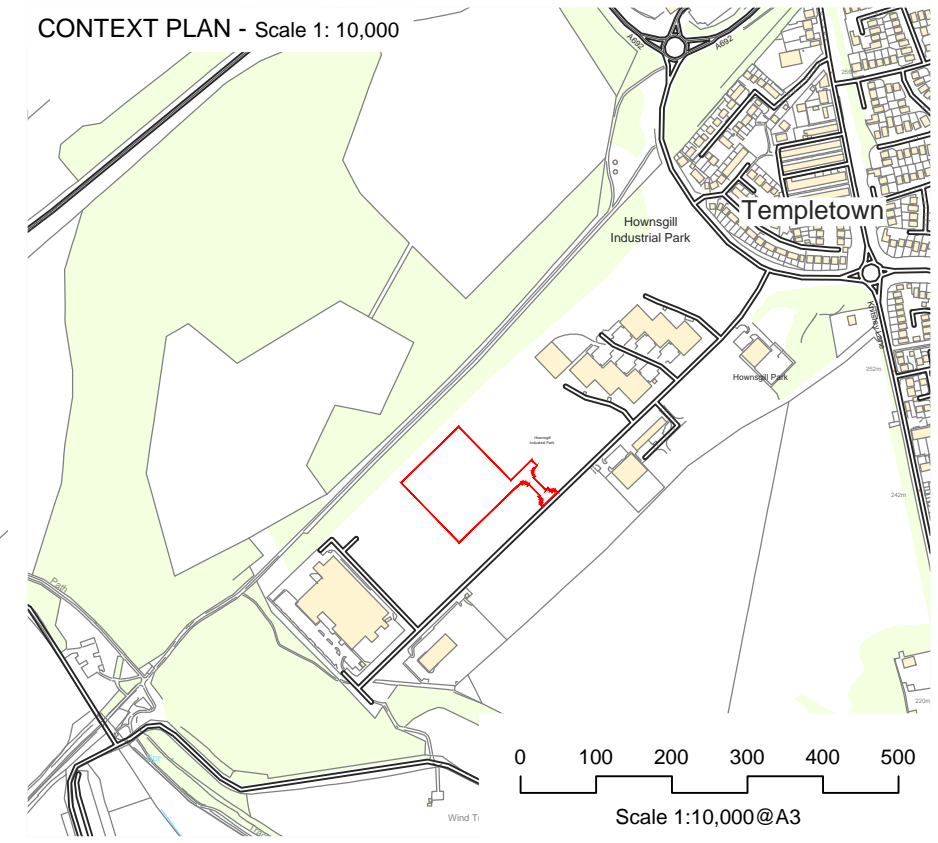
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- 15.1.1 This Scoping Opinion Request has been prepared by Enzygo Ltd on behalf of Project Genesis Ltd in order to formally request the EIA scoping opinion on the extent of matters to be considered in the local planning authority's EIA and reported in the ES for the proposed development.
- 15.1.2 The proposed development is for an Energy Facility and the application site is located on Land off Knitsley Lane within Hownsgill Industrial Estate Consett, Durham, DH8 7EQ.
- 15.1.3 The project falls within Schedule 1, section 10 of the 2017 EIA Regulations, which covers 'Waste disposal installations for the incineration, chemical treatment (as defined in Annex I to Directive 2008/98/EC under heading D9) of non-hazardous waste with a capacity exceeding 100 tonnes per day'. The proposed development therefore constitutes EIA development.
- 15.1.4 This EIA Scoping Report has identified the potential for certain significant effects to arise from the Energy Facility. The following specialist assessments are proposed:
- ) Noise and Vibration;
  - ) Geo-Environmental;
  - ) Landscape and Visual Amenity;
  - ) Air Quality and Human Health.
- 15.1.5 The detailed assessments for each of these topics will be undertaken in accordance with standard guidance and best practice and reported in the Environmental Statement. Where significant effects are identified, mitigation measures will be described where possible to reduce the residual effects.




Howngill  
Industrial Park

BESSERLEY



Key:

 Application Boundary  
Area - 1.28ha



Samuel House, 5 Fox Valley Way, Stocksbridge, Sheffield, S36 2AA

SCALE  
1:1,250@A3

DATE  
June 2020

DRAWN  
MG

PROJECT NO.  
CRM.0138.001

DRAWING NO.  
CRM.0138.001.PL.D.001

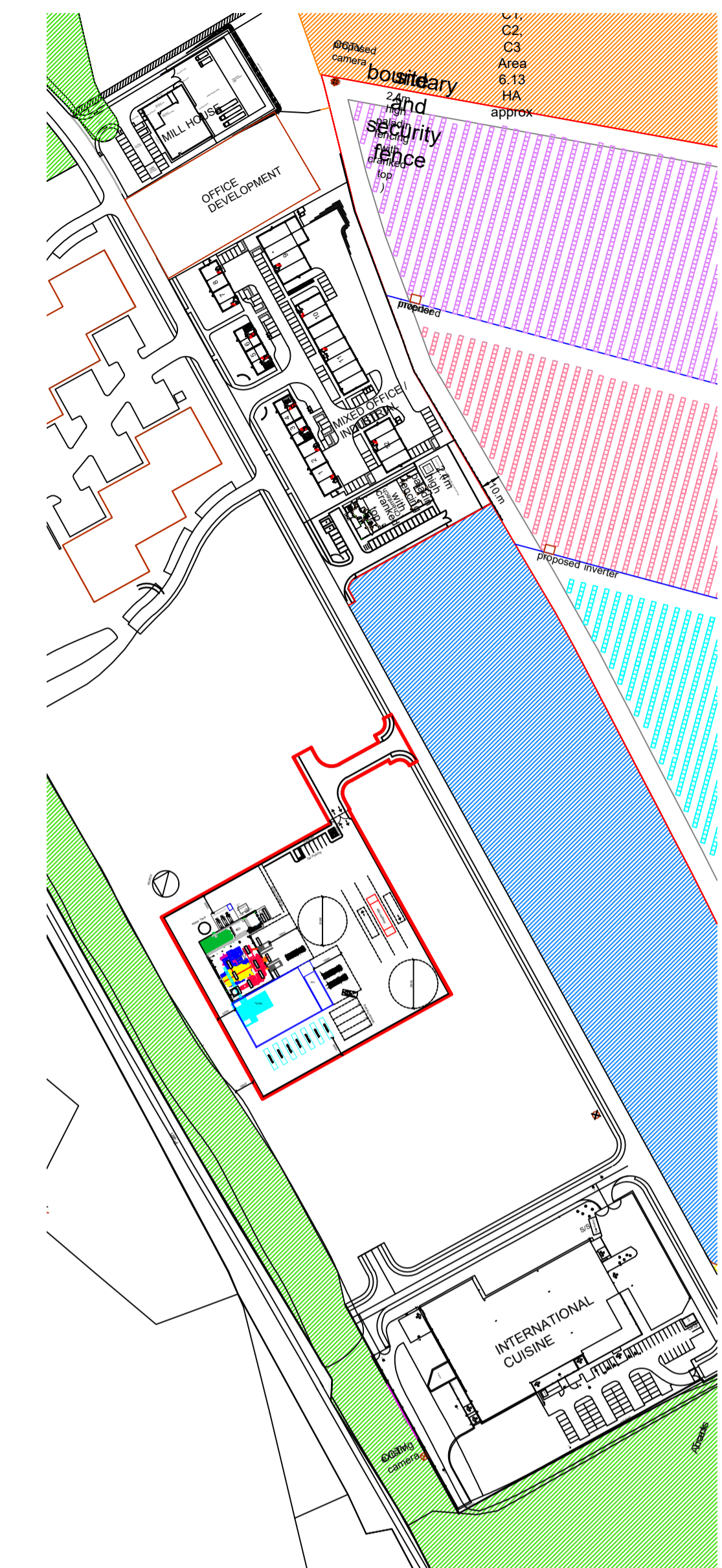
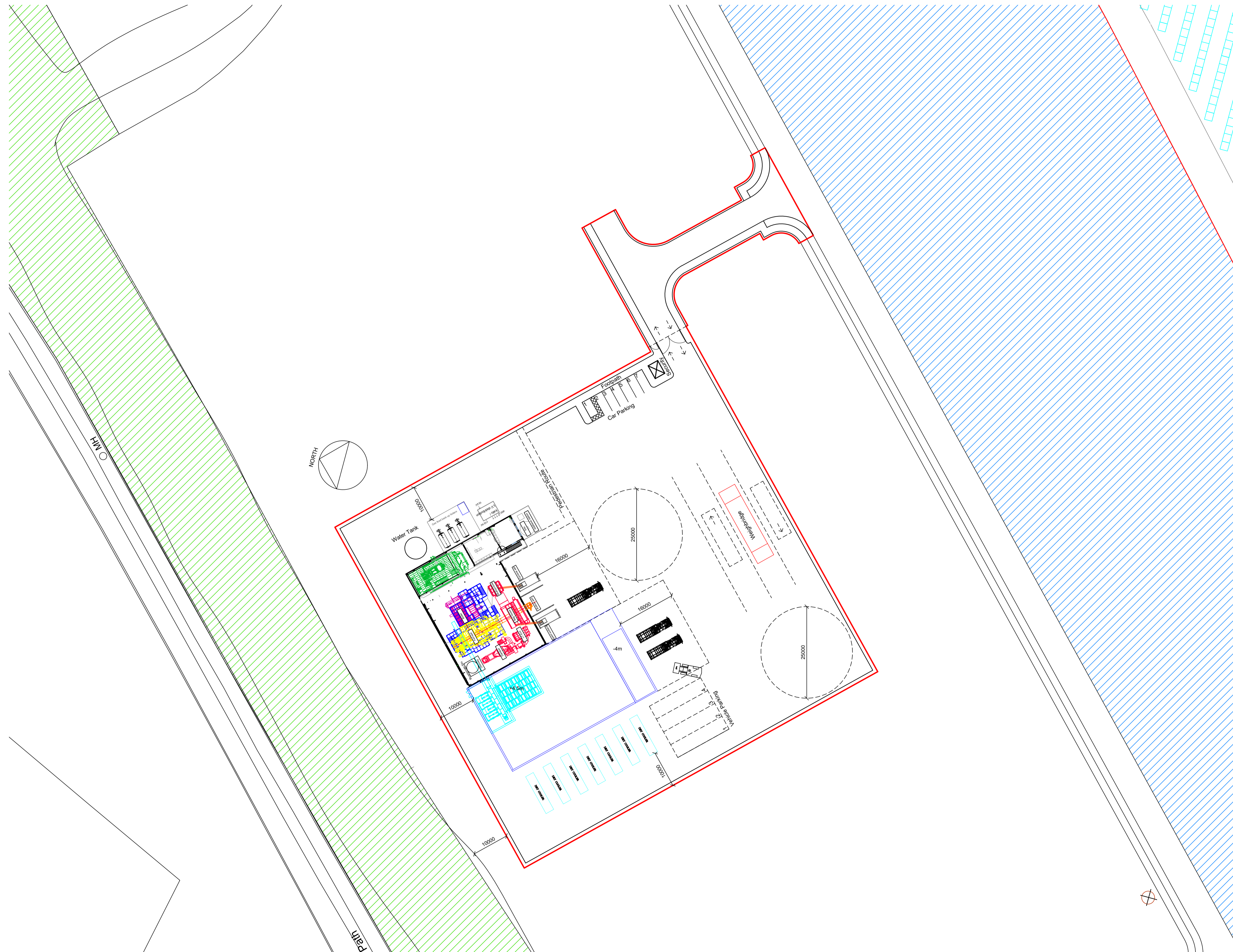
CHECKED  
CM

PROJECT  
Howngill Energy Facility

DRAWING TITLE  
Location Plan

CLIENT  
Project Genesis Ltd





Key Location Plan  
1:2500

NOTE:  
Site area  
3.16 acres  
1.28 hectares

Proposed Site Plan  
1:500

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 In addition to the hazards/tricks normally associated with the types of work detailed on this drawing take note of the above. It is assumed that all works on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.  
 Safety Health and Environmental Information Box

Rev	Revision	Date	Drawn	Checked
-	First Issue	14/05/2020	FC/DD	DD
A	Updated in line with client comments. Proposal repositioned 100m to South West of previous revision. 1:2500 key location plan added.	19/05/2020	DD	DD
B	South West boundary moved 10m further from line of buildings to improve vehicular movements based on swept path analysis. Weightbridge position amended. Site area figures revised.	19/05/2020	DD	DD
C	Updated in line with client comments. Proposal rotated 90 degrees anti-clockwise. Site access moved to North boundary of the site. Water tank added to drawing.	26/05/2020	FC	DD
D	Updated in line with comments from Design Team Meeting on 28/05/2020. Security lodge and car parking repositioned. Bicarbonate silo added.	29/05/2020	FC	DD

Rev	Revision	Date	Drawn	Checked	Project
					EFW Facility, Consett
					Client: Project Genesis Ltd
					Layout Title: Proposed Site Plan

Scale in m. 0 5 10 15 20 25  
1:500

Drawing Number  
 project originator zone level type note number rev  
 \*\*\* -SBAKA- 00 - GF - DR - A AL(0) 001 D  
 SBAJKA Project No. Scale @ A1 Status  
 2200033 1:500 PRELIMINARY  
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