EP UK Investments

South Humber Bank Energy Centre Project

Planning Inspectorate Reference: EN010107

South Marsh Road, Stallingborough, DN41 8BZ

The South Humber Bank Energy Centre Order

Document Ref 5.3: Gas Connection and Pipeline Statement

The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 - Regulations 5(2)(p), 6(1)(a)(ii) & 6(4)

Applicant: EP Waste Management Ltd
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DOCUMENT HISTORY

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GLOSSARY

Abbreviation	Description
ACC	Air-cooled condenser.
AGI	Above Ground Installation.
CCGT	Combined Cycle Gas Turbine.
DCO	Development Consent Order: provides a consent for building and operating an NSIP.
EfW	Energy from Waste: the combustion of waste material to provide electricity and/or heat.
EIA	Environmental Impact Assessment.
EPUKI	EP UK Investments Ltd.
EPWM	EP Waste Management Limited ('The Applicant')
ES	Environmental Statement.
ExA	Examining Authority: An inspector or panel of inspectors appointed to examine the application.
mAOD	Metres Above Ordnance Datum.
MW	Megawatt: the measure of power produced.
NELC	North East Lincolnshire Council.
NPS	National Policy Statement.
NSIP	Nationally Significant Infrastructure Project: for which a DCO is required.
PA 2008	Planning Act 2008.
PINS	Planning Inspectorate.
Q2	Quarter 2
RDF	Refuse derived fuel.
SHBEC	South Humber Bank Energy Centre.
SHBPS	South Humber Bank Power Station.
SoS	Secretary of State.

CONTENTS

FIGURES

1.0 EXECUTIVE SUMMARY

1.1.1 EP Waste Management Limited is seeking development consent for an energy from waste power station with a gross electrical output of up to 95 MW on land at South Humber Bank Power Station (SHBPS).

1.1.2 The Proposed Development includes auxiliary burners for use on start up or when required to maintain a two second residence time in the combustion chamber above 850°C. These burners will either be fired on natural gas or diesel. If the burners are to be gas fired then a new gas connection will be required to the Proposed Development.

1.1.3 This document sets out who will be responsible for designing and building the potential gas connection for the Proposed Development (if required) and demonstrates that there is no reason why a gas connection would not be possible.

1.1.4 There are three potential routes for the potential gas connection:

- an underground pipeline connecting to the existing National Grid assets at South Humber Bank Power Station (SHBPS) Above Ground Installation (AGI);
- an underground pipeline connecting to the existing SHBPS CCGT gas supply network; or
- an underground pipeline connecting to the Cadent Gas local distribution network.

1.1.5 The indicative pipeline route options are shown on Figure 1.

1.1.6 The Applicant has engaged with SHBPS, National Grid and Cadent Gas and concludes that all three options are feasible.

1.1.7 The Applicant would be responsible for the design and construction of the gas pipeline as far as the existing SHBPS infrastructure or the Site boundary (depending on the selected connection option). This will be done by the Applicant's chosen Engineering, Procurement and Construction (EPC) Contractor.

1.1.8 An off Site connection to the Cadent Gas local distribution network (if required) does not form part of the Proposed Development, and the relevant undertaker would rely either on their statutory powers or obtain the relevant consents prior to any works being progressed.

1.1.9 A decision on the need for a gas connection and the option to be selected will be made at the detailed design stage.

2.0 INTRODUCTION

2.1 Overview

2.1.1 This 'Gas Pipeline Statement' document (Document Ref. 5.3) has been prepared on behalf of EP Waste Management Limited ('EPWM' or the 'Applicant'). It forms part of the application (the 'Application') for a Development Consent Order (a 'DCO'), that has been submitted to the Secretary of State (the 'SoS') for Business, Energy and Industrial Strategy, under section 37 of 'The Planning Act 2008' (the 'PA 2008').

2.1.2 EPWM is seeking development consent for the construction, operation and maintenance of an energy from waste ('EfW') power station with a gross electrical output of up to 95 megawatts (MW) including an electrical connection, a new site access, and other associated development (together 'the Proposed Development') on land at South Humber Bank Power Station ('SHBPS'), South Marsh Road, near Stallingborough in North East Lincolnshire ('the Site').

2.1.3 A DCO is required for the Proposed Development as it falls within the definition and thresholds for a 'Nationally Significant Infrastructure Project' (a 'NSIP') under sections 14 and 15(2) of the PA 2008.

2.1.4 The DCO, if made by the SoS, would be known as the 'South Humber Bank Energy Centre Order' ('the Order').

2.1.5 Full planning permission ('the Planning Permission') was granted by North East Lincolnshire Council ('NELC') for an EfW power station with a gross electrical output of up to 49.9 MW and associated development ('the Consented Development') on land at SHBPS ('the Consented Development Site') under the Town and Country Planning Act 1990 on 12 April 2019. Since the Planning Permission was granted, the Applicant has assessed potential opportunities to improve the efficiency of the EfW power station, notably in relation to its electrical output. As a consequence, the Proposed Development would have a higher electrical output (up to 95 MW) than the Consented Development, although it would have the same maximum building dimensions and fuel throughput (up to 753,500 tonnes per annum (tpa)).

2.1.6 **The Applicant**

2.1.7 The Applicant is a subsidiary of EP UK Investments Limited ('EPUKI'). EPUKI owns and operates a number of other power stations in the UK. These include SHBPS and Langage (Devon) Combined Cycle Gas Turbine ('CCGT') power stations, Lynemouth (Northumberland) biomass-fired power station, and power generation assets in Northern Ireland. EPUKI also owns sites with consent for new power stations in Norfolk (King's Lynn 'B' CCGT) and North Yorkshire (Eggborough CCGT).

2.1.8 EPUKI is a subsidiary of Energetický A Prumyslový Holding ('EPH'). EPH owns and operates energy generation assets in the Czech Republic, Slovak Republic, Germany, Italy, Hungary, Poland, Ireland, and the United Kingdom.

2.2 The Proposed Development Site

2.2.1 The Proposed Development Site (the 'Site' or the 'Order limits') is located within the boundary of the SHBPS site, east of the existing SHBPS, along with part of the carriageway within South Marsh Road. The principal access to the site is off South Marsh Road.

2.2.2 The Site is located on the South Humber Bank between the towns of Immingham and Grimsby; both over 3 km from the Site. The surrounding area is characterised by industrial uses dispersed between areas of agricultural land with the nearest main settlements being the villages of Stallingborough, Healing and Great Coates. The Site lies within the parish of Stallingborough although Stallingborough village lies over 2 km away.

2.2.3 The Site lies within the administrative area of NELC, a unitary authority. The Site is owned by EP SHB Limited, a subsidiary of EPUKI, and is therefore under the control of the Applicant, with the exception of the highway land on South Marsh Road required for the new Site access.

2.2.4 The existing SHBPS was constructed in two phases between 1997 and 1999 and consists of two CCGT units fired by natural gas, with a combined gross electrical capacity of approximately 1,400 MW. It is operated by EP SHB Limited.

2.2.5 The Site is around 23 hectares (‘ha’) in area and is generally flat, and typically stands at around 2.0 m Above Ordnance Datum (mAOD).

2.2.6 The land surrounding the Site immediately to the south, west and north-west is in agricultural use with a large polymer manufacturing site, Synthomer, and a waste management facility, NEWLINCS, both located to the north of the Site and also accessed from South Marsh Road. The estuary of the River Humber lies around 175 m to the east of the Site.

2.2.7 Access to the South Humber Bank is via the A180 trunk road and the A1173. The Barton railway line runs north-west to south-east between Barton-on-Humber and Cleethorpes circa 2.5 km to the south-west of the Site and a freight railway line runs north-west to south-east circa 300 m (at the closest point) to the Site.

2.2.8 A more detailed description of the Site is provided at Chapter 3: Description of the Proposed Development Site in the Environmental Statement ('ES') Volume I (Document Ref. 6.2).

2.3 The Proposed Development

2.3.1 The main components of the Proposed Development are summarised below:

- Work No. 1— an electricity generating station located on land at SHBPS, fuelled by refuse derived fuel (‘RDF’) with a gross electrical output of up to 95 MW at ISO conditions;
- Work No. 1A— two emissions stacks and associated emissions monitoring systems;
- Work No. 1B— administration block, including control room, workshops, stores and welfare facilities;

- Work No. 2— comprising electrical, gas, water, telecommunication, steam and other utility connections for the generating station (Work No. 1);
- Work No. 3— landscaping and biodiversity works;
- Work No. 4— a new site access on to South Marsh Road and works to an existing access on to South Marsh Road; and
- Work No. 5— temporary construction and laydown areas.

2.3.2 Various types of ancillary development further required in connection with and subsidiary to the above works are detailed in Schedule 1 of the DCO. A more detailed description of the Proposed Development is provided at Schedule 1 'Authorised Development' of the Draft DCO and Chapter 4: The Proposed Development in the ES Volume I (Document Ref. 6.2) and the areas within which each of the main components of the Proposed Development are to be built is shown by the coloured and hatched areas on the Works Plans (Document Ref. 4.3).

2.4 Relationship with the Consented Development

2.4.1 The Proposed Development comprises the works contained in the Consented Development, along with additional works not forming part of the Consented Development ('the Additional Works'). The Additional Works are set out below along with an explanation of their purpose.

- a larger air-cooled condenser (ACC), with an additional row of fans and heat exchangers – this will allow a higher mass flow of steam to be sent to the steam turbine whilst maintaining the exhaust pressure and thereby increasing the amount of power generated;
- a greater installed cooling capacity for the generator – additional heat exchangers will be installed to the closed-circuit cooling water system to allow the generator to operate at an increased load and generate more power;
- an increased transformer capacity – depending on the adopted grid connection arrangement the capacity will be increased through an additional generator transformer operating in parallel with the Consented Development's proposed generator transformer or a single larger generator transformer. Both arrangements would allow generation up to 95 MW; and
- ancillary works – the above works will require additional ancillary works and operations, such as new cabling or pipes, and commissioning to ensure that the apparatus has been correctly installed and will operate safely and as intended.

2.4.2 The likely construction scenario is for work on the Consented Development (pursuant to the Planning Permission) to commence in Quarter 2 ('Q2') of 2020 and to continue for around three years. Following grant of a DCO for the Proposed Development (approximately halfway through the three-year construction programme), the Applicant would initiate powers to continue development under the Order instead of the Planning Permission. The Order includes appropriate powers and notification requirements for the 'switchover' between consents, to provide clarity for the relevant planning

authority regarding the development authorised and the applicable conditions, requirements, and other obligations. Once the Order has been implemented the additional works would be constructed and the Proposed Development would be built out in full. The Proposed Development would commence operation in 2023.

2.4.3 Alternative construction scenarios, involving construction entirely pursuant to the Order, are also possible. Accordingly, three representative scenarios are described within Chapter 5: Construction Programme and Management in the ES Volume I (Document Ref. 6.2) and assessed in the Environmental Impact Assessment ('EIA').

2.5 Purpose of this Document

2.5.1 The purpose of this document is to meet the requirements of Regulations 6(1)(a)(ii) and 6(4) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, which requires the Applicant to provide a statement setting out who will be responsible for designing and building the gas pipeline connection to the Proposed Development, and to set out certain details in respect of the pipeline.

2.5.2 This Gas Connection Statement has therefore been prepared to satisfy the requirements of Regulations 6(1)(a)(ii) and 6(4) and to demonstrate that there is no reason why a gas connection would not be possible.

2.5.3 Section 3 of this document describes the potential gas pipeline route and connection point options. Section 4 confirms the contractual agreements that are in place, while Section 5 details the responsibilities for designing and building the potential gas connection. Section 6 explains the ownership of the land required, Section 7 deals with the consent required for the potential gas connection works and Section 8 sets out the conclusions.

3.0 POTENTIAL GAS PIPELINE ROUTE AND CONNECTION POINT

3.1.1 The gas supply for the Proposed Development would be connected via a new underground pipeline from the Proposed Development to one of:

- the existing South Humber Bank Power Station (SHBPS) Above Ground Installation (AGI), in order to provide a connection to the National Grid gas distribution network (Option A); or
- the existing SHBPS gas supply network, in order to provide a connection to the National Grid gas distribution network (Option B); or
- the Cadent Gas local distribution network located to the north of the Site (Option C).

3.1.2 The gas pipeline route options are shown on Figure 1, which show the expected start and end points of the gas pipeline for each option.

3.1.3 The SHBPS AGI and the SHBPS gas supply network (i.e. Option A or Option B) are located within the Site, although the AGI itself is excluded from the Site.

3.1.4 Any gas connection works outside of the Site, including works on the AGI (for Options A or B) or if required to connect to the local distribution network (i.e. Option C), do not form part of the Proposed Development, and the relevant undertaker will rely either on their statutory powers or obtain the relevant consents prior to any works commencing.

3.1.5 The pipeline will be up to 500 mm in diameter. The lengths of the pipelines for the different options are:

- Option A: 195 m;
- Option B: 217 m
- Option C: 315 m.

3.1.6 Environmental effects associated with the on Site construction of the three potential gas connection options are assessed as part of the Environmental Impact Assessment, which is reported in the ES (Document Refs. 6.1 to 6.4). Any off Site gas connection works to be carried out by the relevant undertaker have been considered in the assessment of cumulative environmental effects (see Chapter 17: Cumulative and Combined Effects of the ES Volume I (Document Ref. 6.2)).

4.0 CONTRACTUAL AGREEMENTS

4.1.1 Gas connection works on the gas pipeline routes shown on Figure 1 will be carried out by a specialist contractor employed by the Applicant.

4.1.2 For any gas connection works required outside the Site (e.g. to connect to the Cadent Gas local distribution network),

4.1.3 the relevant undertaker will rely either on their statutory powers or obtain the relevant consents prior to connection.

5.0 RESPONSIBILITIES FOR DESIGNING AND BUILDING THE GAS CONNECTION

5.1 Gas Pipeline Construction

5.1.1 The Applicant will select the preferred gas pipeline route option and the Applicant's chosen contractor will undertake detailed design of the connection route within the Site.

5.1.2 It is envisaged that installation of the gas pipeline will be through the use of an 'open-cut' method, whereby a trench will be excavated, and the pipework laid below ground. These works will generally be as follows:

- fence off the works area and fit safety signage;
- strip and store topsoil (if required);
- excavate the trench and store subsoil. The EPC contractor will be responsible for providing all necessary trench supports and for maintaining the trenches in a safe condition and free of water.
- place pipe bedding, compacted in layers, with care taken to avoid voids and soft spots, particularly between the pipes.
- lay gas pipeline in the trench; and
- backfill subsoil, reinstate topsoil (if required) and restore to original state.

5.1.3 These works would be undertaken in accordance with the measures outlined in a Construction Environmental Management Plan (CEMP) to be prepared by the contractor.

5.1.4 For any gas pipeline installation works required outside the Site (e.g. to connect to the Cadent Gas local distribution network), these will be undertaken by the relevant statutory undertaker (Cadent Gas) using a method similar to that described in paragraph 5.1.2 above.

5.2 Gas Connection Operation and Maintenance

5.2.1 The Applicant will be responsible for the operation and maintenance of all on Site plant and apparatus during operation of the Proposed Development.

5.2.2 EP SHB Limited and National Grid would be responsible for the operation and maintenance of their respective equipment within the existing SHBPS and SHBPS AGI.

5.2.3 Cadent Gas would be responsible for the operation and maintenance of their gas pipework and infrastructure outside the Site.

6.0 LAND REQUIRED FOR THE CONNECTION

6.1.1 If a gas connection is to be made to the National Grid gas distribution network (Options A or B), all works would be located within the Site which is owned by EP SHB Limited - see the Land Plans (Document Ref. 4.2) and Book of Reference (Document Ref. 3.1). No road or river crossing consents are required as all works are on land in the ownership of EP SHB within the Site.

6.1.2 If a gas connection is to be made to the Cadent Gas local distribution network outside the Site (Option C), Cadent Gas will obtain any required land rights and road crossing consents prior to connection, through its statutory powers or a separate application. No river crossings are required.

7.0 CONSENT FOR THE GAS CONNECTION WORKS

7.1.1 The potential gas connection under Option A or Option B forms part of the works included within the DCO Application, and therefore no separate planning permission is required for connection works within the Site.

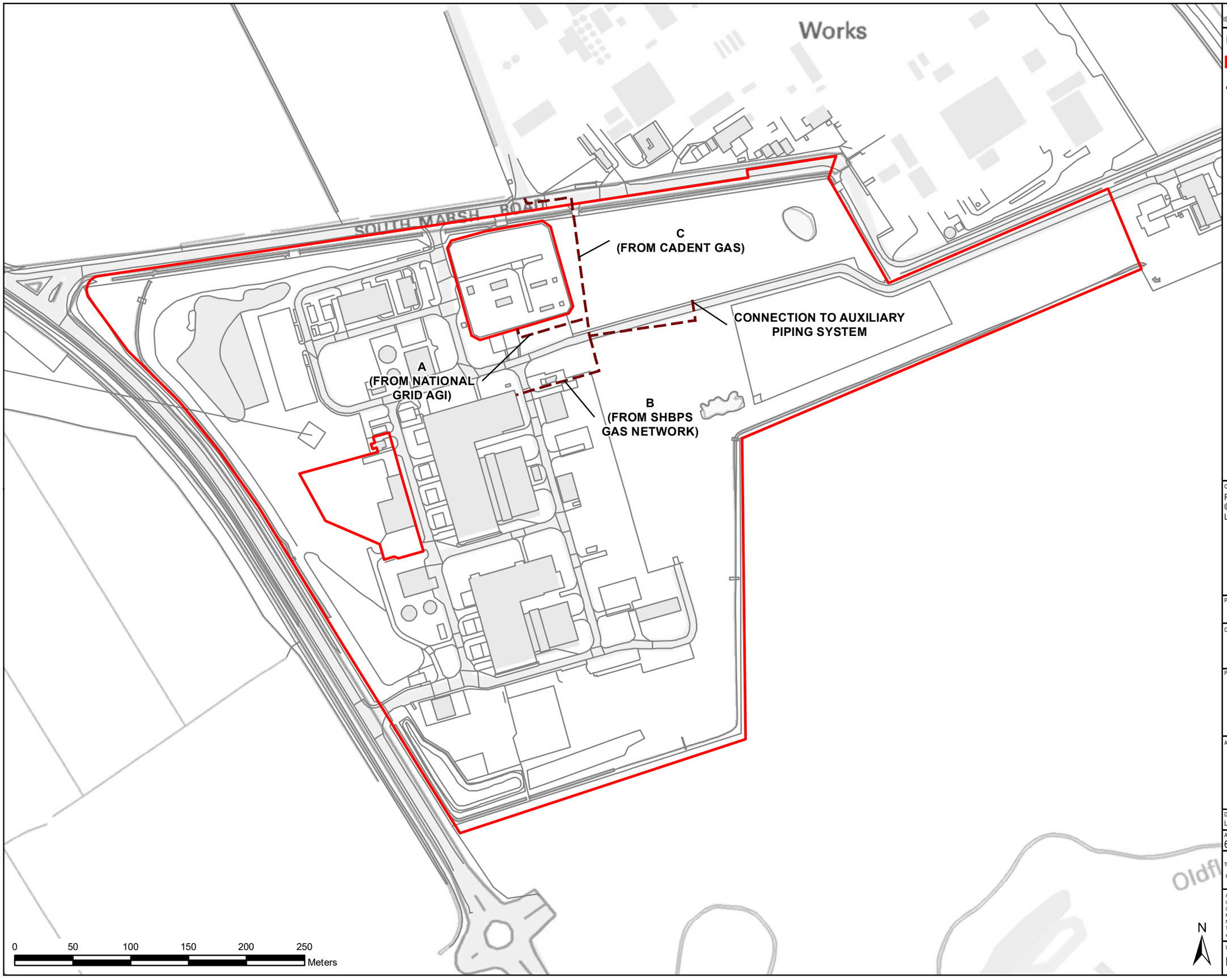
7.1.2 If gas connection works are required outside the Site (i.e. to connect to the Cadent Gas local distribution network) (Option C), the relevant undertaker will rely either on their statutory powers or obtain the relevant planning permission prior to connection.

8.0 CONCLUSIONS

8.1.1 This Gas Connection Statement has been prepared to satisfy the requirements of the Infrastructure Planning (Applications: Prescribed Forms and Procedures Regulations 2009, Regulation 5(2)(p), 6(1)(a)(ii) & 6(4) and to demonstrate to the SoS that there is no reason why a gas connection (if required to fuel auxiliary burners) would not be possible for the Proposed Development.

8.1.2 The Statement has demonstrated that the potential gas connection options are feasible, that the necessary agreements are able to be secured by the Applicant, and appropriate powers are included in the draft Order to facilitate the delivery of the gas pipeline.

FIGURE 1: GAS PIPELINE ROUTE OPTIONS



THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

LEGEND

- Order Limits
- Potential Gas Connection Route Options

Purpose of Issue
GAS PIPELINE STATEMENT

Client
EP WASTE MANAGEMENT LTD

Project Title
SOUTH HUMBER BANK
ENERGY CENTRE DCO

Application Document Ref
GAS CONNECTION
ROUTE OPTIONS

Drawn	Checked	Approved	Date
LC	AR	LK	02/04/2020

AECOM Internal Project No.	Scale @ A3
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Drawing Ref	Rev
FIGURE 1	

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