

# The Drax Power (Generating Stations) Order

Land at, and in the vicinity of, Drax Power Station, near Selby, North Yorkshire

## Consultation Report Appendix 6 - Consultation Material



The Planning Act 2008 – Section 37(3)(c)  
The Infrastructure Planning (Applications: Prescribed Forms and Procedure)  
Regulations 2009 – Regulation 5(2)(q)

### **Drax Power Limited**

Drax Repower Project

Applicant: DRAX POWER LIMITED  
Date: May 2018  
Document Ref: 5.1.6  
PINS Ref: EN010091

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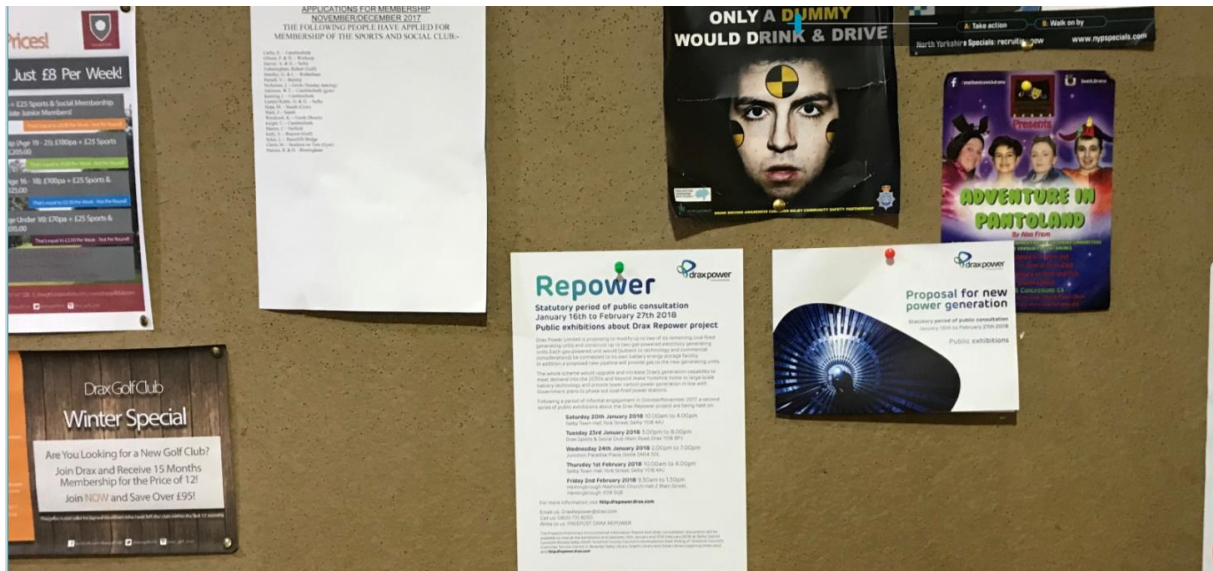
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### 6.1 Posters

#### Drax Poster in Camblesforth Post Office (16 January 2018)



#### Drax Poster in Sports Club (16 January 2018)





## 6.2 Leaflet





## The Drax Repower Project

Drax Power Limited (Drax) is proposing to modify up to two of its remaining coal-fired electricity generating units (known as Units 5 and 6) to become **gas-powered electricity generating units**. This modification and construction would involve Drax re-using certain equipment currently utilised in the operation of Units 5 and 6. In addition, each unit would (subject to technology and commercial considerations) be connected to its own **battery energy storage facility**.

The Drax Repower Project would upgrade and increase Drax's generation capability to meet demand into the 2030s and beyond, make Yorkshire home to large-scale battery technology and provide lower carbon power generation in line with Government plans to phase out coal-fired power stations.

The new gas-powered generating units require a gas connection from the National Gas Transmission Network. This connection would comprise a **new pipeline** (approx. 3km long) to provide gas to the generating units and an Above Ground Installation (AGI) at the connection to the National Gas Transmission and contained within a small compound.

A summary of the key aspects of the proposed Project, which Drax wishes to consult on, are included in this leaflet, as is a feedback form.

Last year, Drax announced its Repower Project and in October 2017, homes and businesses in the near vicinity of Drax Power Station received an information leaflet about the Project. In addition, Drax has shared its plans via the local media, via the internet and social media, in meetings with local councils, correspondence with landowners and other interested parties and at public exhibitions held in Drax, Selby and Goole.

The feedback that Drax has received to date has helped inform the Project's environmental studies, engineering assessments and design work.

The Project's website <http://repower.drax.com> provides details of the Repower Project. From 16th January 2018, the website will carry the Project's consultation documents comprising a Project Overview Report, the Preliminary Environmental Information Report and an accompanying Non-Technical Summary together with this leaflet. The Project's Statement of Community Consultation will also be available on the website.

Subject to development consent and construction, the Project could start generating electricity in 2022/23.

### Why Repower?

As well as responding to the UK Government's current commitment to see all coal-fired generation phased-out in this country by 2025, the proposed new gas units and battery storage facilities, combined with Drax's existing biomass units, would provide lower carbon electricity at significant scale when the UK's energy system needs it. For example, when the wind isn't blowing or the sun isn't shining - or when there are peaks in electricity demand and the energy system is under stress. Gas generation, which can operate at short notice, has a key role in supporting the country's energy system.

## Planning and consultation

The Repower Project is classed as a 'nationally significant infrastructure project'. Drax is therefore required to submit an application for a Development Consent Order (DCO) to the Secretary of State (the SoFS) for Business, Energy and Industrial Strategy. The application would be examined by an Examining Authority appointed from the Planning Inspectorate by the SoFS. The Examining Authority, made up of one or more inspectors, would make a recommendation to the SoFS as to whether or not the proposed Project should proceed. The decision on whether or not the proposed Project should be granted a DCO would then be made by the SoFS.

An application for consent is expected to be submitted to the SoFS within the next six months, once Drax and its team of technical specialists have completed their environmental and engineering assessments (as well as associated design work) and had regard to the consultation responses from this consultation.

Following a period of informal engagement in October/November 2017, **Drax is now carrying out a 42-day period of statutory public consultation about the Repower Project. This will begin on Tuesday 16th January 2018 and end on Tuesday 27th February 2018.**

The Preliminary Environmental Information Report (PEIR) and other consultation documents about the Project are available for review during this period. The PEIR sets out the preliminary findings regarding the likely environmental effects. Drax will have regard to your feedback when it finalises the proposed Project.

Drax will continue to liaise with Selby District Council, North Yorkshire County Council and East Riding of Yorkshire Council during and after the statutory consultation. Drax will also maintain engagement with parish councils in the area as well as organisations such as the Environment Agency, Natural England and Historic England to ensure that the Project would be designed, built, operated and maintained to the necessary safety and environmental standards.

For more information about the DCO Application Process, please visit the Planning Inspectorate's website - <https://infrastructure.planninginspectorate.gov.uk>

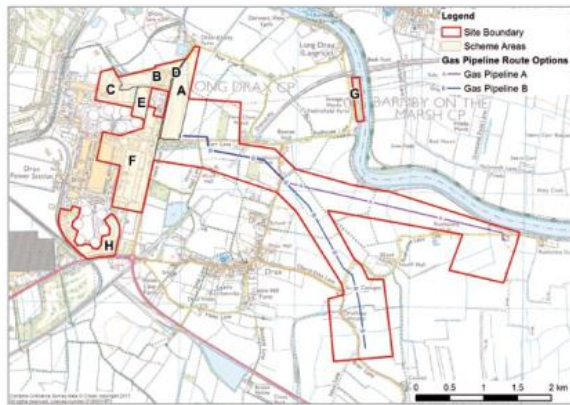
### Key elements of the Drax Repower Project

- The construction, operation and maintenance of up to two new gas-fired generation units, with a combined capacity of up to 3,600MW (up to 1,800MW per unit), and located predominantly within the boundary of the existing Drax Power Station site.
- The construction, operation and maintenance of up to two battery storage facilities (one per unit and each up to 100MW capacity) within the power station site.
- The gas-fired generation units will include up to four new turbines (up to two per unit) that can operate in combined-cycle or open-cycle modes.



- The construction, operation and maintenance of a new gas pipeline connection to the National Gas Transmission System (to the east of the Drax Power Station site and on land outside Drax's ownership); two possible routes are being consulted on which can be viewed in the consultation documents.
- An electrical connection into Drax's existing 400 kilovolt (kV) substation that would allow electricity to be exported into the National Grid.
- An option to install a temporary crane adjacent to the existing jetty on the River Ouse to bring equipment and materials to the proposed Project during its construction. If Drax decides not to use the jetty, it would transport equipment and materials by road; this may require temporary highway powers, for example to close roads between Goole and Drax Power Station.
- Land set aside for potential carbon capture technology in the future, and for temporary construction laydown and contractor parking.

Separate to the proposed Repower Project, Drax may undertake site reconfiguration works ahead of its construction. These works may involve the demolition and relocation of some existing equipment and buildings within the Drax Power Station site. Such works are likely to require a separate planning permission from Selby District Council, which may be sought this year.



Outline map of the Project

**Legend**

- A & B construction compound & laydown area
- C battery storage unit & offices
- D temporary road bridge
- E battery storage
- F generating units
- G jetty
- H construction compound



## Freepost Feedback Form

Please complete in BLOCK CAPITALS and return by **5.00pm on 27th February 2018** to **FREEPOST DRAX REPOWER** (no stamp is required) or email the form to **DraxRepower@drax.com**.  
A feedback form is also available on the Drax Repower website.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_

Email: \_\_\_\_\_

I plan to attend/attended the following public exhibitions:

Selby Town Hall  Drax Sports & Social Club   
Junction, Goole  Hemingbrough Methodist Church Hall

Did you comment during the initial phase of consultation?

Yes  No, not aware of Project

No, but was aware of Project

Drax has carried out and considered further studies and prepared a Preliminary Environmental Information Report that identifies potential benefits and impacts of the Project.

Do you have any comments on the Report's findings?

\_\_\_\_\_  
\_\_\_\_\_

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\_\_\_\_\_  
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If you have any comments and observations about the Project, including the options for the gas pipeline route, please share below.

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\_\_\_\_\_  
\_\_\_\_\_

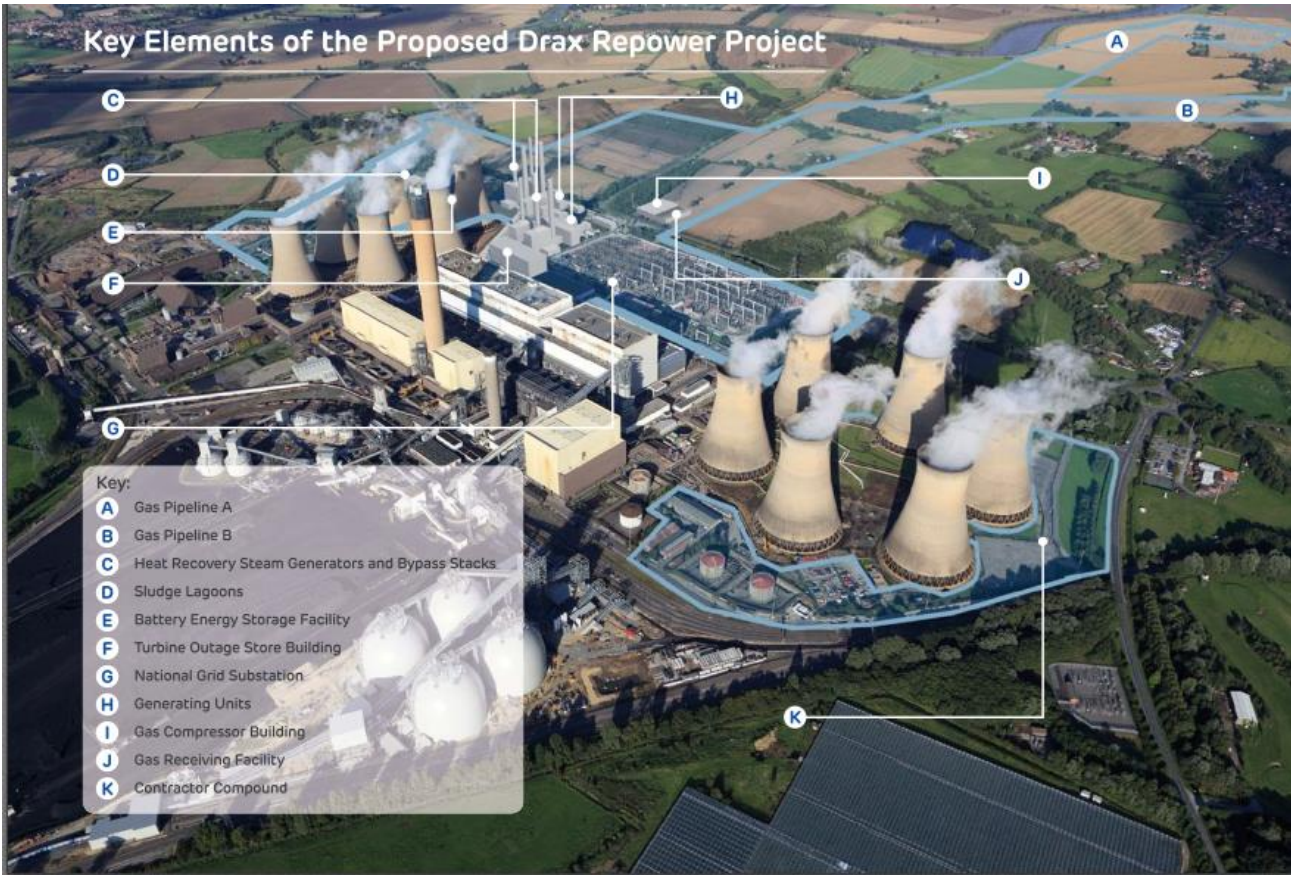
How do you feel about Drax's proposals?

Supportive  Neutral  Opposed

If you wish to provide further comment about the Project, please continue on additional sheets and post to **FREEPOST DRAX REPOWER** or email via **DraxRepower@drax.com**

Data Protection rules apply, for further information please visit <http://repower.drax.com/data-protection/>





## Environmental Assessment

The preliminary environmental assessments for the Repower Project have considered issues such as impacts on air and water quality, flood risk, traffic and transport, noise, ecology, heritage and landscape/visual amenity. The preliminary findings indicate the following:

- **Air quality, emissions and noise:** potential impact resulting from construction activities and during operation of the power generation units.
- **Visual impact:** introduction of eight stacks (up to 120m high) and two battery storage units into the local landscape.
- **Transport:** potential impact to the local road network during construction.

More detail on these and the other preliminary findings can be read in the non-technical summary to the PEIR. Wherever possible, we will seek to minimise or avoid any significant adverse effects through the final design process and a number of mitigation measures.

A final Environmental Statement will be submitted as part of the DCO application for the Repower Project.

## Public exhibitions in the local area

- **Saturday 20th January 2018 (10.00am to 4.00pm)**  
Selby Town Hall, York Street, Selby, YO8 4AJ
- **Tuesday 23rd January 2018 (3.00pm to 8.00pm)**  
Drax Sports and Social Club, Main Road, Drax, Selby, YO8 8PJ
- **Wednesday 24th January 2018 (2.00pm to 7.00pm)**  
Junction, 2 Paradise Place, Goole, DN14 5DL
- **Thursday 1st February 2018 (10.00am to 4.00pm)**  
Selby Town Hall, York Street, Selby, YO8 4AJ
- **Friday 2nd February 2018 (9.30am to 1.30pm)**  
Hemingbrough Methodist Church Hall, 2, Main Street, Hemingbrough, YO8 6QE

## Your views?

Drax would welcome your views on its proposed Repower Project and in particular on:

- The two gas pipeline route options and whether you have any concerns over the routes that Drax has identified. You can see the two options in the consultation materials.
- The findings of the preliminary assessment of the likely effects of the Project during its construction and its operation, as set out in the PEIR.

You can share your views to Drax in a number of ways:

- Write to us or complete the feedback form in this leaflet and send to **FREEPOST DRAX REPOWER**
- Complete our online feedback form on <http://repower.drax.com>
- Email us via [DraxRepower@drax.com](mailto:DraxRepower@drax.com) or call us on freephone **0800 731 8250**
- Visit one of our exhibitions to be held in the local area; members of the Project team will be available to discuss the Project
- Contact us via twitter (@DraxNews) and Facebook

**Please provide your feedback to Drax on or before 5.00pm on 27th February 2018.**

## Project Information

The Project's consultation documents comprising a Project Overview Report, the Preliminary Environmental Information Report and an accompanying Non-Technical Summary together with this leaflet and the Statement of Community Consultation are available to view at these locations during the statutory period of public consultation (16th January to 27th February 2018).

- **Selby District Council** - Access Selby, Market Cross Shopping Centre, Selby, YO8 4JS. Tel: 01757 798449
- **North Yorkshire County Council** - County Hall, Northallerton, DL7 8AD. Tel: 01609 780780
- **East Riding of Yorkshire Council** - Customer Service Centre, Cross Street, Beverley, HU17 9BA. Tel: 01482 393939
- **Selby Library** - 52 Micklegate, Selby, YO8 4EQ. Tel: 01609 534521
- **Snaith Library** - 27 Market Place, Snaith, Goole, DN14 9HE. Tel: 01405 860096
- **Goole Library** - Carlisle Street, Goole, DN14 5DS. Tel: 01405 762187

Opening times vary. Please check times with each location.

Autumn 2017	Winter 2018	Spring/Summer 2018	Summer 2018	Summer/Autumn 2018	Autumn 2018/ Spring 2019	Summer/Autumn 2019	2022/23
Liaison with local councils, landowners and other statutory organisations Environmental Impact Assessment (EIA) Project design & engineering First public exhibitions (non-statutory)	Publication of Statement of Community Consultation Statutory period of consultation, including consultation on the PEIR and public exhibitions January 16 to February 27	Detail of the Project, including the EIA, finalised Submission of DCO application	Pre-Examination Period	Notice of Preliminary Meeting Preliminary Meeting held	Examination Period	Decision from Secretary of State for BEIS	Commercial operation

Website: <http://repower.drax.com>

Email us: [DraxRepower@drax.com](mailto:DraxRepower@drax.com)

Call us: 0800 731 8250

Write to us: FREEPOST DRAX REPOWER

This leaflet, upon request, can be made available in large print format, braille and other languages.





## 6.3 Drax Feedback Form

### Proposed power generation project at Drax Power Station



### Feedback Form

Thank you for attending today's exhibition, which is an important element of our statutory public consultation for the Repower Project; this period ends on 27th February 2018.

We welcome your views on Drax's proposals to develop gas-fired power generation units and battery storage facilities, and to construct a gas pipeline.

Drax Power Limited will use the personal information supplied in this form solely in connection with the consultation process and the proposed planning application. Responses may be made publicly available, but personal details will be kept confidential. Respondents do not have to provide personal information but this information will help us to understand the range of responses and to provide updates about the project and the outcome of the consultation. Where we use third parties to support this process, we may share this form with them but only under obligations of confidentiality and data protection.

We would also like to keep in touch with you as the project develops. If you would like to be kept informed, please fill in your contact details (postal address, email).

Name: \_\_\_\_\_  
Address: \_\_\_\_\_ Postcode: \_\_\_\_\_  
Email: \_\_\_\_\_

Age bracket (please tick)     Under 25     25-45     46-60     Over 60

#### Which exhibition did you attend?

<input type="checkbox"/> Selby Town Hall 20th January	<input type="checkbox"/> Drax Sports & Social Club 23rd January	<input type="checkbox"/> Junction, Goole 24th January
<input type="checkbox"/> Selby Town Hall 1st February	<input type="checkbox"/> Hemingbrough Church Hall 2nd February	<input type="checkbox"/> no exhibition attended

If you do NOT want us to contact you, we would appreciate you leaving us just your postcode so that we can gauge the approximate locations of people who attended today.

Postcode

#### Did you comment during the initial phase of consultation?

Yes     No, not aware of Project     No, but I was aware of Project

#### How did you hear about this exhibition? (tick one or more)

<input type="checkbox"/> Leaflet	<input type="checkbox"/> Poster	<input type="checkbox"/> News article in newspaper or a news report on TV/radio
<input type="checkbox"/> Twitter	<input type="checkbox"/> Facebook	<input type="checkbox"/> Advertisement/official notice in newspaper
<input type="checkbox"/> Word of mouth	<input type="checkbox"/> Drax employee communications	
<input type="checkbox"/> Drax website	<input type="checkbox"/> Letter from Drax	

Please turn over



Drax has carried out and considered further studies and prepared a Preliminary Environmental Information Report that identifies potential benefits and impacts of the Project. Do you have any comments on the Report's findings?

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If you have any comments and observations about the Project, including the options for the gas pipeline route, please share below.

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How do you feel about Drax's proposals?

Supportive       Neutral       Opposed

Please leave this form in the box provided or return it to us via **FREEPOST DRAX REPOWER** by **5.00pm on 27th February 2018**. If you wish to provide further comment about the Project, please continue on additional sheets and post to **FREEPOST DRAX REPOWER**.

For more information, visit <http://repower.drax.com>

Email us: [DraxRepower@drax.com](mailto:DraxRepower@drax.com)

Call us: 0800 731 8250

Write to us: FREEPOST DRAX REPOWER

This form, upon request, can be made available in large print format, braille and other languages.



6.4 Project Overview Report





Drax Power Limited

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# DRAX REPOWER PROJECT

Project Overview Report





Drax Power Limited

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# **DRAX REPOWER PROJECT**

Project Overview Report

**TYPE OF DOCUMENT (VERSION) PUBLIC**

**PROJECT NO. 70037047  
OUR REF. NO. 70037047 POR**

**DATE: JANUARY 2018**

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# QUALITY CONTROL

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# 1 INTRODUCTION

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- 1.1.1. Drax Power Limited is proposing to repower up to two of the six generating units at Drax Power Station from coal-fired to gas generating plant(s). Each unit would (subject to technology and commercial considerations) be connected to its own battery energy storage facility. These proposals and the associated infrastructure would have a capacity of up to 3,800MW of electricity, and are known as the Drax Repower Project (the 'Project').
- 1.1.2. The repowering of each unit from coal to gas involves the construction of a gas-fired generating station with a capacity of more than 50 megawatts. Each battery energy storage facility would also have a capacity of more than 50 megawatts. As such, each proposed repowered unit and each battery energy storage facility is classed as a Nationally Significant Infrastructure Project ('NSIP'). Drax Power Limited must, therefore, make an application under the Planning Act 2008 (as amended) (the '2008 Act') for a permission known as a Development Consent Order ('DCO') to construct and operate the proposed Project.
- 1.1.3. Following this statutory consultation, which runs from 16 January to 27 February 2018, and after detailed engineering studies and environmental assessments, the application for a DCO will be submitted to the Secretary of State for Business, Energy and Industrial Strategy (the 'SofS'), who will examine the application through appointed inspector(s) from the Planning Inspectorate (known as the Examining Authority) before making a decision on whether or not to grant consent.
- 1.1.4. Subject to development consent and construction, the Project could start generating electricity in 2022/24.
- 1.1.5. The purpose of this Overview Report is to provide an overarching summary of:
- the proposed applicant, Drax Power Limited;
  - the Project with visualisations showing how the Project may look;
  - a description of the two gas pipeline route options;
  - a description of the construction transport routes and the proposed powers that Drax may require along the route during construction;
  - an explanation of the consultation documents and what they contain; and
  - an explanation as to what happens after the statutory consultation finishes on 27 February 2018.

## 2 THE APPLICANT - DRAX POWER LIMITED

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### 2.1 OVERVIEW

- 2.1.1. Drax Power Limited ('Drax') is part of the Drax Group, a British energy business committed to help change the way energy is generated, supplied and used as the UK moves to a low carbon future – [www.drax.com](http://www.drax.com)
- 2.1.2. Opened in 1975 and extended in 1986, Drax Power Station remains a nationally significant infrastructure asset and an important source of jobs and economic activity in the North of England. It supports over 3,600 jobs across Yorkshire and Humber.
- 2.1.3. Drax Power Station was officially opened in 1975 with three coal-fired generation units and a total generating capacity of just under 2,000MW. In 1986, it doubled in size to make it the largest coal-fired power station in the UK. Since 1988, Drax has invested in a series of initiatives to reduce its impact on the environment (for example retrofitting Flue Gas Desulphurisation equipment to its coals units) and in 2012 Drax embarked on a major programme of investment to transform its power generation operations away from coal.
- 2.1.4. Drax has converted three of its coal units to use sustainably sourced compressed wood pellets (biomass); 70% of the electricity produced at the power station is now generated using biomass – enough to power Leeds, Manchester, Sheffield and Liverpool.
- 2.1.5. The proposed Project is another step in Drax's commitment to moving Drax Power Station towards a low carbon facility and guaranteeing the future of the Power Station as a major component of the UK's electricity generation as well as a vital economic asset for Yorkshire and Humber.

### 2.2 A HISTORY OF DRAX

- 2.2.1. For 50 years, Drax has continued to innovate in response to the UK's energy needs. The proposed Project is the latest pioneering project undertaken by the company.

#### 1967

The Selby coalfield is discovered and the Central Electricity Generating Board begins building Drax Power Station to use its coal.

#### 1974

Drax Power Station starts generating electricity after its first 660MW unit is commissioned. It is the most advanced and efficient coal-fired power station ever built in the UK.

#### 1975

Drax Power Station is officially opened with three generators and a total generating capacity of just under 2,000MW. It has the capability to power around two million homes.

#### 1986

Drax doubles in size and capacity, becoming the largest power station in the UK.

#### 1988

Drax becomes the first power station to invest in retrofitted flue gas desulphurisation (FGD) equipment. Once fully operational in 1995, it removes 90% of sulphur dioxide emissions, making it the cleanest coal-fired power station in the UK.



2003

Drax Power Station starts co-firing biomass, as a renewable energy alternative to coal.

2004

Drax Power station starts research and development for direct fuel injection of biomass into its coal generating units, bypassing the pulverising mills directly into the boiler for greater throughput.

2008

Boosted-over-fire-air (BOFA) technology is retrofitted to all boilers, reducing nitrous oxide (NOX) emissions.

2012

Drax Power Station completes a five-year project, worth over £100m – the largest steam turbine modernisation programme in UK history – to upgrade its high and low-pressure turbines. This saves around one million tonnes of carbon dioxide emissions, equivalent to taking 275,000 cars off the UK's roads.

Drax commits to transforming the business into a mainly biomass-fuelled generator using compressed wood pellets in place of coal. It plans to upgrade the three generating units that came online in the early 1970s.

2013

The first of three power generating units is fully converted to use compressed wood pellets in April.

2014

The second power generating unit is upgraded to biomass in May.

Additionally, Drax completes construction of four large storage domes used to house the biomass supply. Each dome is bigger than the Royal Albert Hall, can hold 75,000 tonnes of high-density wood pellets and is explosion proof.

2016

The third power generating unit is fully upgraded to biomass.

2017

The Drax Repower Project is announced.



## 3 THE DRAX REPOWER PROJECT

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### 3.1 OVERVIEW

- 3.1.1. As noted above, Drax is proposing to repower up to two of the six generating units at Drax Power Station from coal-fired to gas generating plant(s).
- 3.1.2. The boundary of the proposed application site is shown in red in Appendix A (this boundary incorporates two potential gas pipeline route options, on which we are consulting and would welcome your views. Please see section 3.2 in this Report).
- 3.1.3. Drax's objectives for the Project are to:
- Reduce the reliance of Drax Power Station on coal as a source of power for electricity generation;
  - Increase the flexible, response generating capacity of the Power Station to meet increasing demand across the UK by;
    - a) providing additional support services to manage the stability of the national grid, such as frequency response and inertia, to support weather-dependent renewables like wind and solar; and
    - b) increasing reliable large scale capacity on the system (i.e. large amount of capacity that can be called on at any time);
  - Maximise the Power Station's generation efficiency.
- 3.1.4. The Project comprises the repowering of up to two existing coal-powered generating units (units 5 and 6) at Drax Power Station with the construction of new gas turbines that can operate in both combined cycle and open cycle modes. It is proposed that some of the existing infrastructure within the Drax Power Station complex would support the construction and operation of the new gas fired generating units, including steam turbines and the cooling solution. It is because of this re-use of existing infrastructure that this project is called a repower project, whilst involving the construction of new gas fired generating units.
- 3.1.5. The repowered units would have a new combined capacity of up to 3,600 MW (1,800 MW each), replacing existing units with a combined capacity to generate up to 1,320 MW (660 MW each):
- each new gas fired unit would have up to two gas turbines, each powering a dedicated generator of up to 600 MW in capacity. The gas turbines in each unit, therefore, would have a combined capacity of up to 1,200 MW;
  - the gas turbines in each unit, in combined cycle mode, would provide steam to the existing steam turbine (through Heat Recovery Steam Generators (HRSGs)) which would generate up to 600 MW per unit. Each unit would have up to two HRSGs;
  - this results in a capacity for each repowered unit of up to 1,800 MW and, should both units be repowered, a combined capacity of up to 3,600MW.
- 3.1.6. Each unit would (subject to technology and commercial considerations) have a battery energy storage facility, which would have a capacity of up to 100MW per unit, resulting in a combined battery energy storage capacity of up to 200MW and a combined capacity for the proposed Project of 3,800 MW should both units 5 and 6 be repowered with battery storage. Should Drax repower only one unit, then the capacity would be up to 1,900 MW (with battery storage).
- 3.1.7. At present there are two potential development options under consideration:
- Repowering of either unit 5 or 6; and
  - Repowering of both units 5 and 6.
- 3.1.8. In the event that a single unit is repowered (i.e. either unit 5 or 6), up to two gas turbines and up to two HRSGs and (subject to technology and commercial considerations) a single battery energy storage facility would be constructed. If both units are repowered then works would be undertaken consecutively rather than concurrently.



3.1.9. Below are two visualisations of the key elements of the Project, which are explained further below.

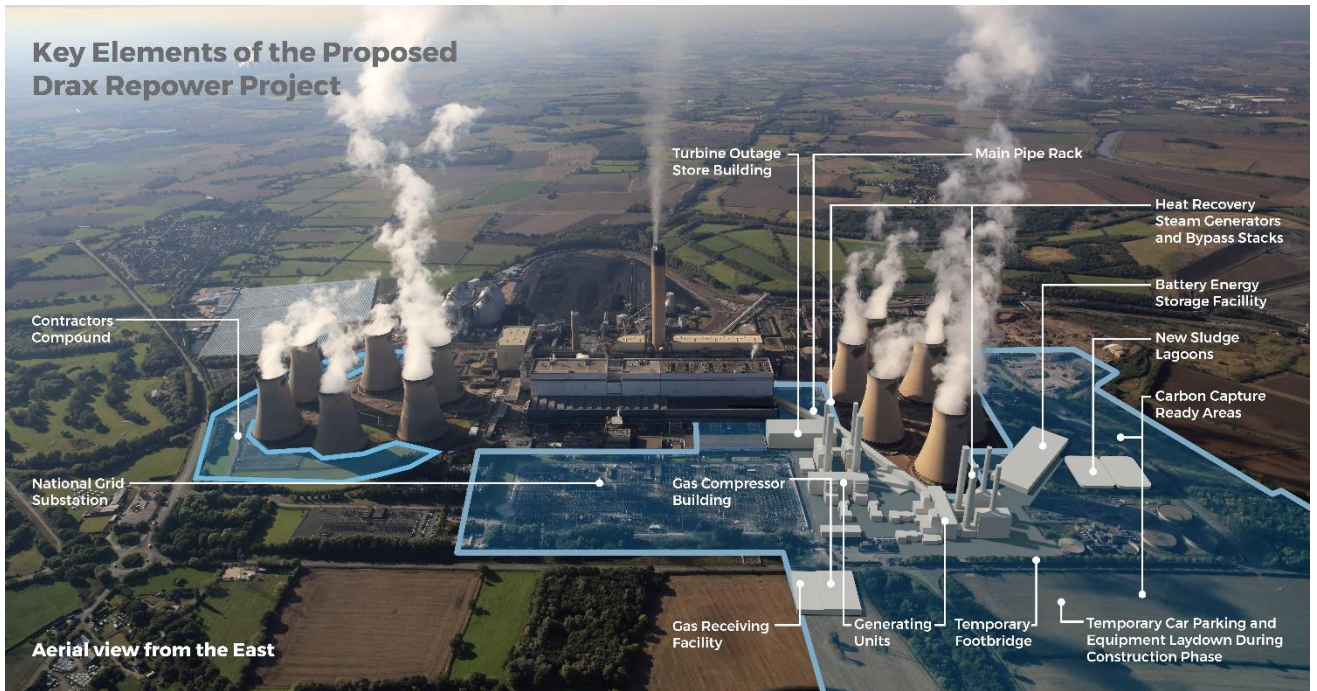


Figure 1 - Key Elements of the Proposed Drax Repower Project - Aerial View from the East

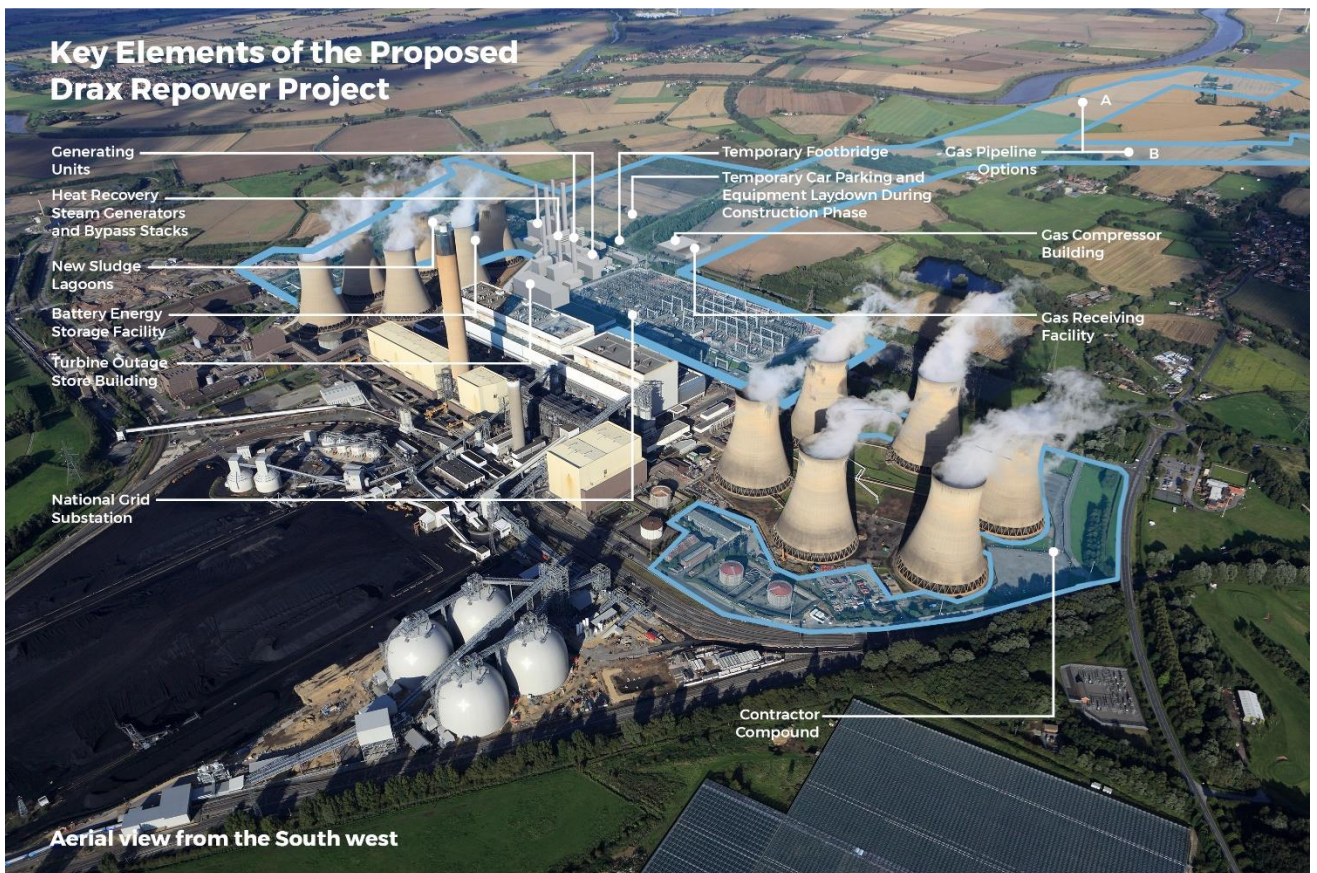


Figure 2 - Key Elements of the Proposed Drax Repower Project - Aerial view from the South west



- 3.1.10. The gas turbine generating units will be designed to operate in either open cycle or combined cycle mode and will each have up to four stacks. When operating in open cycle, the exhaust gas from the gas turbine will be sent direct to the atmosphere through a bypass stack. When operating in combined cycle, the exhaust gas from the gas turbine will pass through the HRSG to generate steam that will be used to power the existing steam turbines.
- 3.1.11. The plant will be designed to operate for up to 25 years after which the continued operation of the repowered units will be reviewed. If it is not appropriate to continue operation, the repowered units will be decommissioned.
- 3.1.12. The main buildings and elements of the gas turbine generating units are listed below.
- Gas Turbines – up to two per repowered generating unit
  - Heat Recovery Steam Generators (HRSGs) – up to two per repowered generating unit.
  - Stacks – there will be up to 4 stacks per repowered generating unit. When operating in combined cycle mode, the HRSGs recover the heat from hot flue gases from the gas turbines. The heat is used to produce steam that will drive the existing steam turbines. Each HRSG will have a main stack, expected to be up to 120 m in height. When operating in open cycle, the HRSG will be bypassed and the exhaust gas from the gas turbine will be sent direct to the atmosphere through a bypass stack of up to 120 m in height. Accordingly, the gas turbine generating units will each have up to four stacks (a total of up to eight stacks if both units are repowered).
  - NOx abatement technology – this may be included in the repowered units should there be a need to mitigate the amount of nitrogen oxide emissions from the plant.
  - Cooling for the new gas fired units will be provided by the existing condensers for the steam turbines and existing cooling water infrastructure including reuse of the existing northern group of six cooling towers, cooling water make-up intake and cooling water outfall and other associated infrastructure. Therefore, no new infrastructure will be required for cooling.
  - Main piperack – this structure will carry the main steam and condensate return pipes between the new HRSGs and the existing steam turbines. The piperack will allow free circulation of traffic and will therefore have a clearance of 8m from road level to underside of the structure.
  - Operation/maintenance and Control – the repowered units 5 and 6 would be operated and controlled from the current Drax control room which is situated onsite
  - Battery Energy Storage Facility – each new gas turbine generating unit would (subject to technology and commercial considerations) be connected to its own battery energy storage facility, which would have a capacity of up to 100MW.
- 3.1.13. The proposed Project includes associated development, including:
- Gas Pipeline – a circa 3km pipeline connecting the generating units to the National Gas Transmission System. The pipeline would extend eastwards from the Drax Power Station site and include some above ground infrastructure at the connection to the power station (shown as the Gas Receiving Facility and the Gas Compressor Building on Figures 1 and 2 above) and at the connection to the National Gas Transmission System. At present, two pipeline options (Options A and B) are under consideration. These are explained in more detail below. Whilst the intention is to obtain authorisation to acquire the land, construct and operate the gas pipeline under the DCO, a separate planning application may be made for the pipeline to Selby District Council. However, the DCO application would seek compulsory acquisition powers for the pipeline should voluntary agreements not be obtained for the gas pipeline route.
  - Electrical connection: For each repowered unit, the output from each generating unit would be banked using Gas Insulated Switchgear (GIS) housed in a new building close to the generating units. Connection from the GIS banking building to the existing National Grid 400kV substation would be by either:

- An underground cable to the existing National Grid 400kV substation; or
- An underground cable that terminates in a new cable sealing end compound outside of the boundary of the existing National Grid 400kV substation and is connected to the existing equipment using overhead conductors.
- The existing electrical connection for each steam turbine will remain unchanged.
- Carbon Capture Readiness – the gas turbine generating units will be designed to be carbon capture ready, with the appropriate area of land provided to meet this requirement.
- Switchyard and Transmission Plant Works in existing 400kV National Grid Switchyard – the electrical connection from the GIS banking building will connect by underground cables to the existing 400kV switchyard which is owned and operated by National Grid. These works may be undertaken by National Grid as they are within the existing National Grid Switchyard, but powers to undertake these works are likely to be included in the DCO application.
- Construction Laydown – several areas within the Site Boundary and adjacent area have been identified for use as a temporary construction laydown.
- Temporary bridge – an area of land owned by Drax has been identified for use as construction laydown and/or contractor car parking. This area is separated from the Drax Power Station site by New Road, which is a public highway. In order to avoid staff crossing this road on foot a new, temporary pedestrian bridge will be constructed linking the contractor laydown/car parking area with the Drax Power Station site.
- Temporary crane on jetty – although the current preferred option is to deliver ‘kit’ for the construction works via the highway network (more information on this can be found in the construction transport route section further below), Drax is considering whether the existing Drax Jetty on the River Ouse could be used for loading and unloading of large plant and equipment up to the Jetty’s current rating of 200 tonnes. Should this be an option, some works may be required to enable the transfer of large plant and equipment from river barges to land transport. These works would comprise: location of a mobile crane alongside the jetty, associated security lighting, fencing and storage and welfare facilities and laydown areas.
- Demolition and relocation of existing facilities - in order to construct the new generating units and associated facilities, it is proposed to demolish and relocate existing facilities at the Drax site. This would include the Turbine Outage Stores, Learning centre, contractor’s compounds and welfare facilities (temporary), sludge lagoons, and a squash court. Some of these works may be undertaken in 2018 as part of ordinary site reconfiguration works. It is Drax’s intention to submit a separate planning application in early 2018 under the Town and Country Planning Act 1990 to relocate these facilities but in any event they will be included in the application for the DCO.
- Other ancillary works – it may be necessary to remove and restring some of the existing overhead lines during the construction phase of the development. These works will be led by National Grid.
- Highway Powers – powers to carry out some highway works may be necessary in order to transport Abnormal Indivisible Loads (AIL) to the Drax Power Station site. These powers are likely to include the temporary stopping up of roads and removal of barriers. The land will be reinstated to its former condition once the AILs are delivered to site. No development is proposed.

3.1.14. The work areas for the different components of the infrastructure and associated works as described above are shown in Appendix B.



## 3.2 THE GAS PIPELINE ROUTE OPTIONS

- 3.2.1. Feasibility studies have been undertaken to consider how to connect the proposed gas fired units to the National Gas Transmission System. The potential to connect to the Local Transmission System was also considered and discounted as the connection route would be considerably longer than a connection to the National Gas Transmission System, and it is highly unlikely that the gas flows required could be achieved without significant reinforcement works. The closest connections to the National Gas Transmission System are to the Cawood to Eastoft gas pipeline (Feeder 7) and the Pannal to Asselby gas pipeline (Feeder 29), both of which are within 3km of the proposed gas fired units. Connections to both Feeder 7 and Feeder 29 were considered and six gas pipeline routes between these connections and the proposed plant were considered. These six routes are shown in Appendix C.
- 3.2.2. We are consulting on two gas pipeline corridors connecting the proposed Gas Receiving Facility for the Project to two different locations on the National Transmission System ('NTS'). There are two pipes, or "Feeders", which we could connect into and they are known as "Feeder 7" and "Feeder 29" as explained above. To reach these Feeders from the Site Boundary, there are two route Options (A and B):
- Option A: running to the east and connecting with the NTS either east of Brier Lane or off Rusholme Lane, near to the existing National Grid Drax Above Ground Installation.
  - Option B: running south east and connecting with the NTS at the junction where Brier Lane meets New Lane.
- 3.2.3. A decision on which route option is preferred will be made following consultation. A comparison of the options that we are consulting on can be seen in the table below.

**Table 1 - Comparison of Gas Pipeline Route Options**

<b>Constraint</b>	<b>Option A (Connection to Feeder 7 with an Above Ground Installation off Rusholme Lane)</b>	<b>Option A (Connection to Feeder 29 with an Above Ground Installation off Rusholme Lane)</b>	<b>Option B (Connection to Feeder 29 with an Above Ground Installation off Brier Lane)</b>	<b>Comparison</b>
Land use of gas pipeline route	Predominantly arable with semi improved grassland	Predominantly arable with semi improved grassland	Predominantly arable	No difference apart from Option B has no semi improved grassland
Hedgerows affected?	Yes	Yes	Yes	Option B (Feeder 29) will potentially result in the loss of more intact and species rich hedgerow
Ordinary Watercourses/ditches affected?	Yes	Yes	Yes	No difference
Landscape and Visual impact of the proposed Above Ground Installations	Yes	Yes	Yes	The Above Ground Installation within Option B

<b>Constraint</b>	<b>Option A (Connection to Feeder 7 with an Above Ground Installation off Rusholme Lane)</b>	<b>Option A (Connection to Feeder 29 with an Above Ground Installation off Rusholme Lane)</b>	<b>Option B (Connection to Feeder 29 with an Above Ground Installation off Brier Lane)</b>	<b>Comparison</b>
				(Feeder 29) may be visible from a greater number of residential properties.
Public Rights of Way	Yes	Yes	Yes	No difference
Trees to be lost?	Likely	Likely	Likely	Option B (Feeder 29) may potentially result in the loss of trees with suitability for roosting bats
Heritage assets affected?	Potentially	Potentially	Potentially	Option B (Feeder 29) has greater potential for buried remains based on preliminary surveys and effects an additional historic field boundary
Construction suitability of the proposed Above Ground Installations	Likely to be more health and safety issues due to proximity to the existing National Grid Above Ground Installation on Rusholme Lane.	Good – open field location, but will require a long construction and permanent access road off Rusholme Lane.	Good – open field location, with direct access off Brier Lane.	Option B (Feeder 29) and Option A (Feeder 29) more favourable.
Gas capacity, responsiveness and resilience	Feeder 7 is a smaller pipeline and already supplies a number of major gas connections. It is highly unlikely that Feeder 7 can deliver the capacity of gas, or the gas pressures	Feeder 29 is most likely to deliver the capacity of gas and the gas pressures required, for the Project to meet the need for flexible and responsive	Feeder 29 is most likely to deliver the capacity of gas, or the gas pressures required, for the Project to meet the need for flexible and responsive	Option B (Feeder 29) and Option A (Feeder 29) are more favourable gas connections in terms of ensuring resilience of the gas supply

<b>Constraint</b>	<b>Option A (Connection to Feeder 7 with an Above Ground Installation off Rusholme Lane)</b>	<b>Option A (Connection to Feeder 29 with an Above Ground Installation off Rusholme Lane)</b>	<b>Option B (Connection to Feeder 29 with an Above Ground Installation off Brier Lane)</b>	<b>Comparison</b>
	required for the Project to meet the need for flexible and responsive electricity generation.	electricity generation. Feeder 29 is also potentially more resilient as it connects to strategic gas reserves of both the east coast (Easington) and north west (Barrow) fields.	electricity generation. Feeder 29 is also potentially more resilient as it connects to strategic gas reserves of both the east coast (Easington) and north west (Barrow) gas fields.	in all demand conditions.

3.2.4. As part of this consultation, we would welcome your views as to these pipeline route options.

### 3.3 CONSTRUCTION TRANSPORT ROUTE

- 3.3.1. Drax's preferred option is to bring construction material to site by road, although the movement of larger plant and equipment via the port of Goole and offloaded at the existing jetty on the River Ouse is still an option (see Figure 3 below).
- 3.3.2. However, given the restrictions on the weight of loads that could be transported, the limitation on the type of barge that could be used so as to avoid dredging of the River Ouse which would likely have impacts on ecology, and given a reliance on tidal windows for movements, the scope for using the jetty is limited.
- 3.3.3. We have also listened to concerns about the proximity of residents to the jetty and the impact of lighting during the use of the jetty.
- 3.3.4. The preferred construction transport route is 'tried and tested'. Some works to the highways may be necessary in order to bring larger plant and equipment to site. This would involve the removal of street furniture and temporary closure of part of the highway, normally at night and for the duration of the movement only. The land will be reinstated to its former condition once the loads have been delivered.
- 3.3.5. Figures 3, 4 and 5 below show the possible transport route options for Abnormal Indivisible Loads (AILs) from Goole, and the possible construction transport route for HGVs.







## 4 THIS CONSULTATION AND YOUR VIEWS

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- 4.1.1. Last year, Drax announced its Repower Project and in October 2017, homes and businesses in the near vicinity of Drax Power Station received an information leaflet about the Project. In addition, Drax has shared its plans via the local media, the internet and social media, in meetings with local councils, correspondence with landowners and other interested parties and at public exhibitions held in Drax, Selby and Goole. The feedback that Drax has received to date has helped inform the Project's environmental studies, engineering assessments and design work.
- 4.1.2. Drax is carrying out a 42-day period of statutory public consultation about the Repower Project, starting on Tuesday 16th January 2018 and ending on Tuesday 27th February 2018. This Report forms part of the consultation documents and is intended to provide an easy guide to the Project and the more detailed consultation documents that accompany it.
- 4.1.3. Aside from this Report, more detail on the Project can be found in the following consultation documents:-



- **Preliminary Environmental Information Report ('PEIR')**
  - This document sets out the likely significant environmental effects of the Project across a range of topics, such as transport, air quality, water quality, noise, ecology, local heritage and archaeology, socio-economics. The conclusions are preliminary at this stage, based on the information compiled by Drax Power Limited to date.
  - The PEIR is split into the following volumes:
    - Volume 1 contains the preliminary assessment of likely significant effects;
    - Volume 2 contains the Figures to Volume 1, including various plans and maps for the Project;
    - Volume 3 contains the Appendices to Volume 1.
- **Non-Technical Summary to the PEIR**
  - This document is a summary of the PEIR, explaining the preliminary assessment of likely significant effects in easy to read language.

- 4.1.4. This Report, the PEIR and the Non-Technical Summary to the PEIR, together with a leaflet on the Project and the Project's Statement of Community Consultation (SoCC), can all be found on the Project's website <http://repower.drax.com>. They are also available to view at various local council offices and local libraries as set out in the SoCC.
- 4.1.5. Drax would welcome views on:
- The two gas pipeline route options and whether there are any concerns over the routes that Drax has identified.
  - The findings of the preliminary assessment of the likely effects of the Project during its construction and its operation, as set out in the PEIR.
  - Any other observations on the Project generally and which you consider we should have regard to.
- 4.1.6. Individuals and organisations can share their views to Drax in a number of ways:
- Write to and/or complete feedback form (which can be found at the back this document in Appendix D and in the leaflet) and send to **FREEPOST DRAX REPOWER**

- Complete the online feedback form on <http://repower.drax.com>
- Email via [DraxRepower@drax.com](mailto:DraxRepower@drax.com) or call on freephone **0800 731 8250**

4.1.7. This **consultation ends on 27 February 2017**, so please send your views on or before that date.

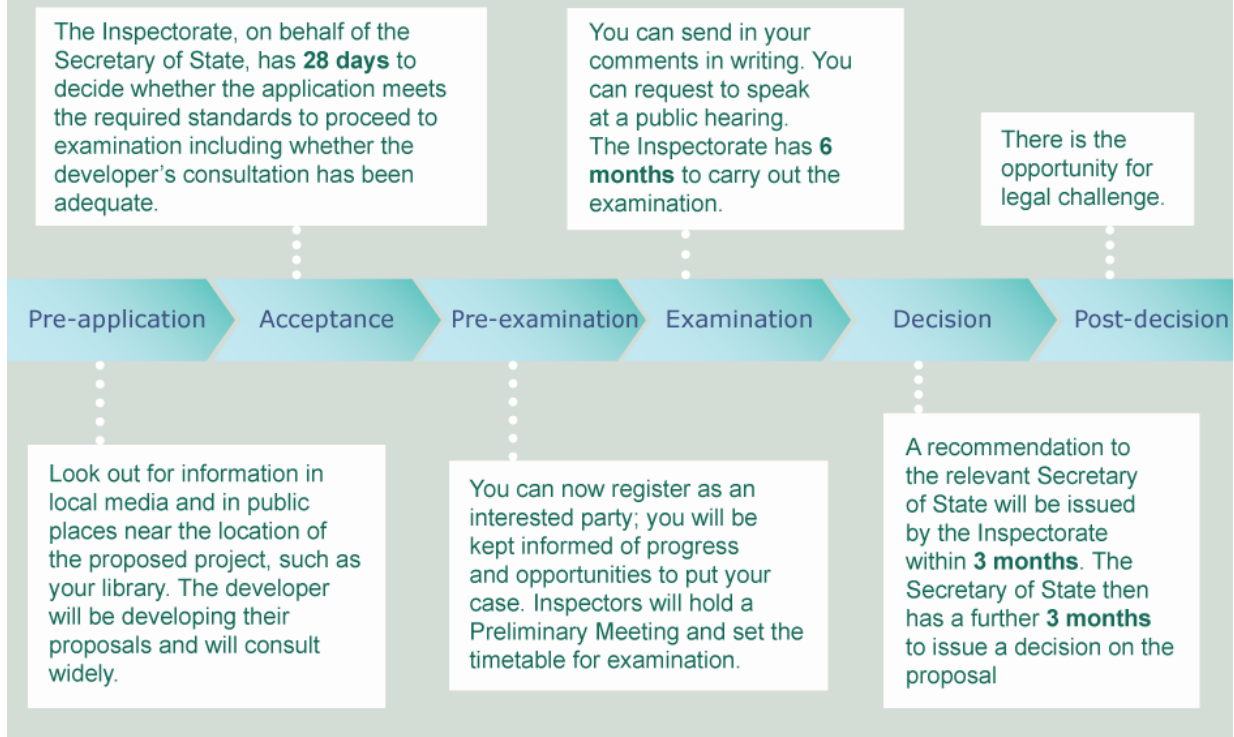
## 5 NEXT STEPS

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- 5.1.1. Once this statutory consultation finishes on 27 February 2017, Drax will review all responses received and have regard to those responses in developing the Project to submission. Drax is required to prepare a consultation report as part of its DCO application, and in that document Drax will summarise the consultation responses received, the themes that emerged and how it has developed the Project having had regard to the responses.
- 5.1.2. Drax is also continuing its environmental assessment of the Project, which will run concurrently to this consultation and beyond. Drax will continue to liaise with Selby District Council, North Yorkshire County Council and East Riding of Yorkshire Council during and after the statutory period of consultation. Drax will also maintain engagement with parish councils in the area as well as organisations such as the Environment Agency, Natural England and Historic England.
- 5.1.3. It is anticipated that the necessary environmental work, technical work and review of consultation responses will mean that Drax will submit an application for a DCO in May 2018
- 5.1.4. The application will comprise a number of documents, including the consultation report referred to above, the Environmental Statement that sets out the final conclusions on likely significant environmental effects of the Project, and a draft form DCO that would authorise the Project and secure the mitigation identified by the Environmental Statement.
- 5.1.5. Following submission of the application to the SofS, the Planning Inspectorate, on the SofS' behalf, will decide whether or not the application is of a standard to be accepted. This takes up to 28 days. Should the application be accepted, then it would enter the "Pre-Examination" Phase, during which the SofS would appoint an Examining Authority to examine the application on his behalf. The Examining Authority will comprise between 1 and 5 Inspectors from the Planning Inspectorate. Also during this Pre-Examination Phase, acceptance of the application will be advertised which will provide information to local people on where they can review the application and how and when they can make representations to the Planning Inspectorate. Anyone who makes a representation can register to become an 'Interested Party' once the Examination process starts.
- 5.1.6. The Pre-Examination Phase lasts approximately 3 months, and so it is anticipated that the Examination into the application will commence approximately September 2018 and last for 6 months (to February/March 2019). Once the Examination has finished, the Examining Authority will have 3 months to write its report and make a recommendation to the SofS as to whether or not he should grant the DCO for the Project. The SofS then has 3 months within which to make his decision. Accordingly, should the Examination commence in September 2018, we expect a decision on the Project to be made in September 2019.
- 5.1.7. For more information about the DCO application process, please visit the Planning Inspectorate's website – <https://infrastructure.planninginspectorate.gov.uk>. The below diagram explains the process from submission to decision.



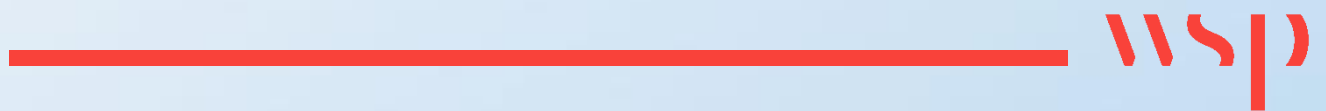
## The application process. The six steps



**Figure 6 - The application process**

# Appendix A

**SITE BOUNDARY**



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**Key**  
 Site Boundary

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A	04/01/2017	TG	FIRST DRAFT	LP	SS
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **DRAFT**

**wsp**

Three White Rose Office Park, Millshaw Park Lane, Leeds, LS11 0DL, UK  
 Tel: +44 113 395 6200 Fax: +44 113 395 6201  
 wsp.com

CLIENT: **drax**

PROJECT: **DRAX REPOWER**

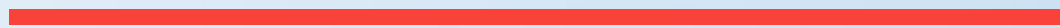
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DRAWING No: 70037047_POR_005		DATE: 04/01/2017
		REV: A

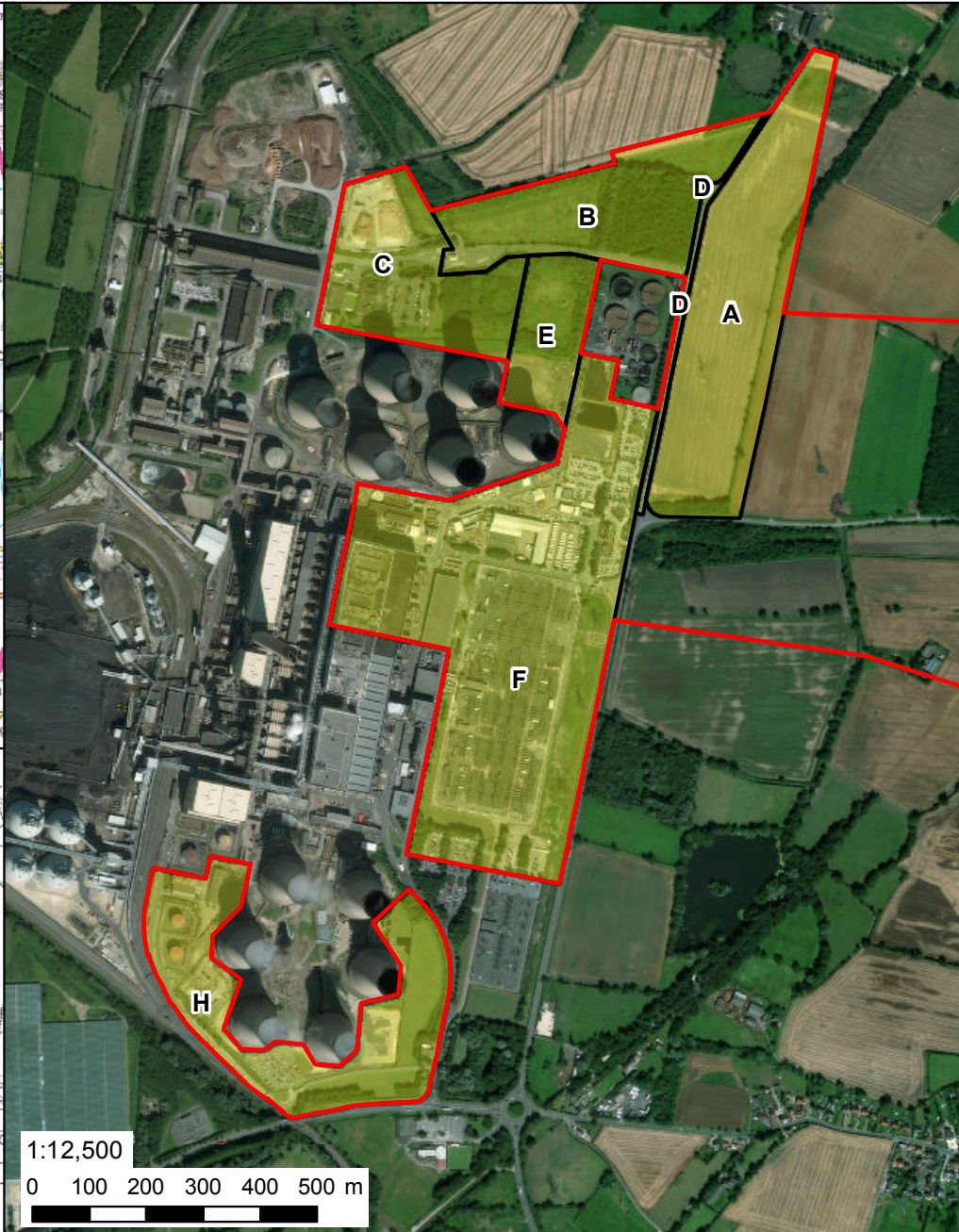
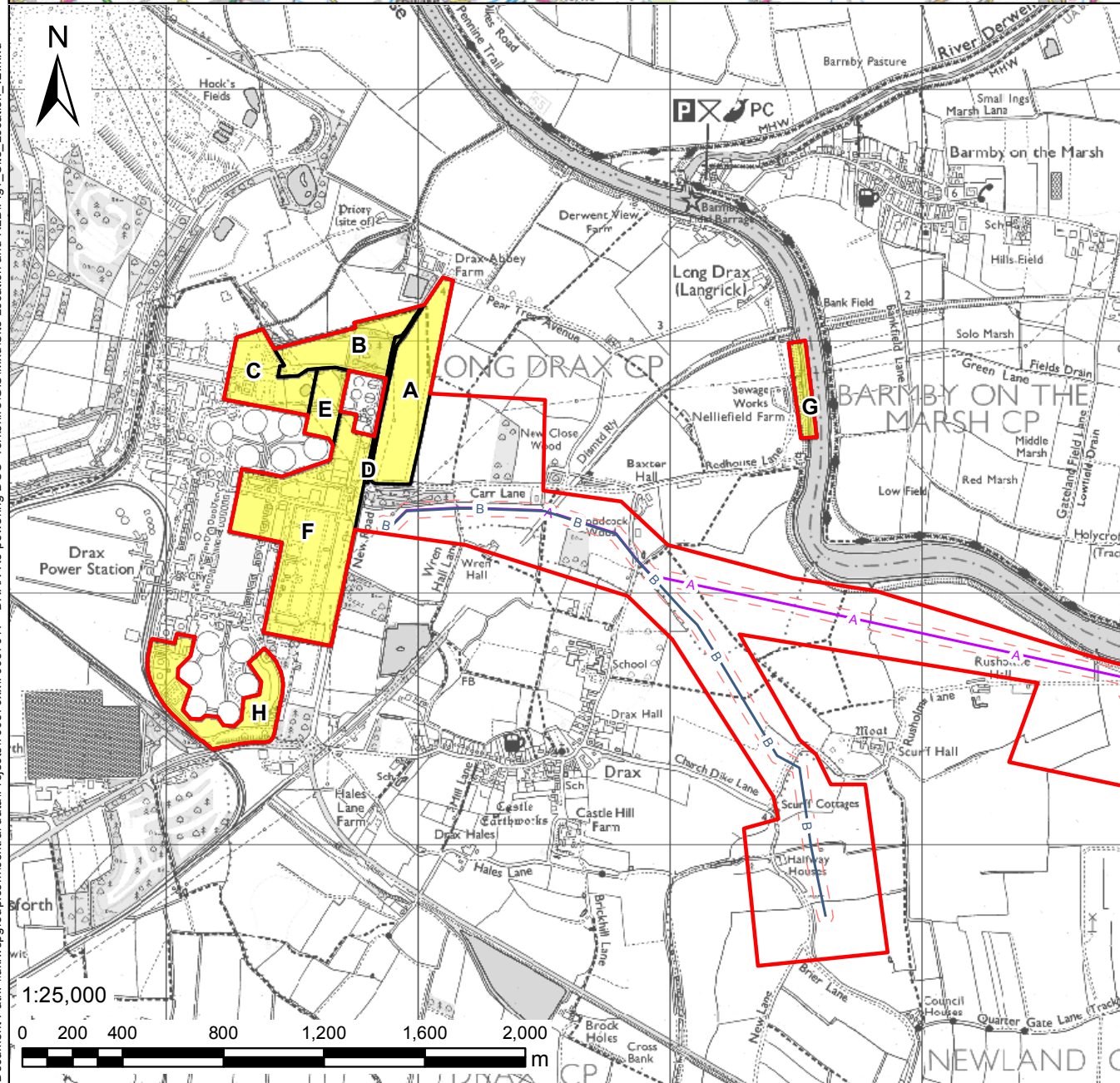
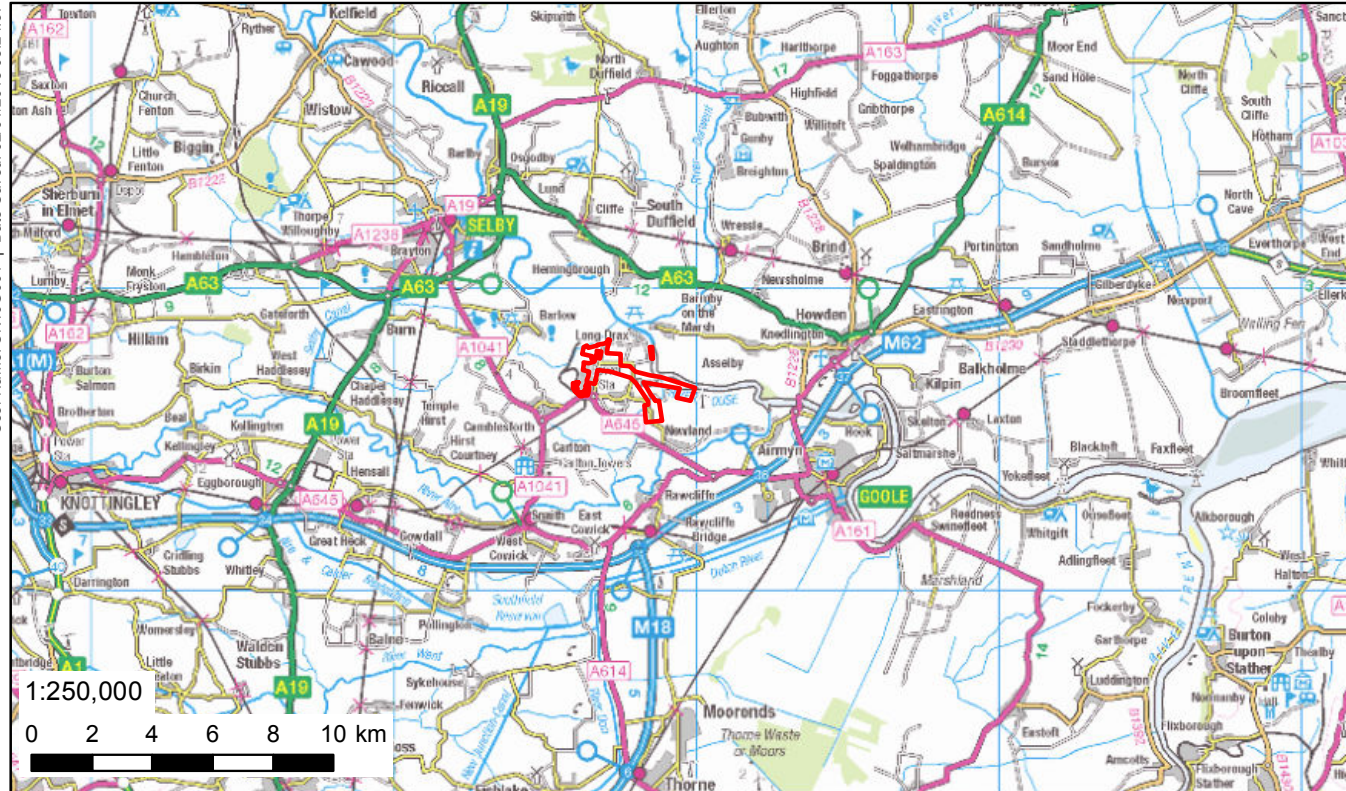
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# Appendix B

## SITE LOCATION







**Key**

- Proposed Application Boundary
- Scheme Areas

**Gas Pipeline Route Options**

- Gas Pipeline A
- Gas Pipeline B
- 30m Buffer of Gas Pipeline Routes

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A	02/01/2018	TG	FIRST ISSUE	LP	SS
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **DRAFT**



Three White Rose Office Park, Millshaw Park Lane, Leeds, LS11 0DL, UK  
Tel: +44 113 395 6200 Fax: +44 113 395 6201  
wsp.com

CLIENT:



PROJECT: **DRAX REPOWER**

TITLE: **SITE LOCATION**

SCALE @ A3: See map @ A3	CHECKED: LP	APPROVED: SS
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PROJECT No: 70037047	DESIGNED: WSP	DRAWN: TG	DATE: 02/01/2018
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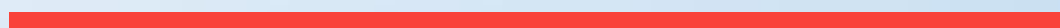
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Area	Current Description of Use	Intended and Potential Use (key elements only)
A	Farming land	Laydown, construction compound/construction car park. Land safeguarded for potential CCR
B	Scrub land	Laydown, construction compound/construction car park. Land safeguarded for potential CCR
C	Business Park and old wood yard	Construction offices - stores location. Battery Storage Facility
D	Roadway	Construction staff roadway bridge. Plant interface connections between Area A, F and B if required for CCR.
E	Scrub land	Battery storage facility, CCR pipe work run.
F	Existing coal fire power units (units X and Y) Ash Lagoons Light - medium stores, site contractors compounds and car parks	Location for GTs and HRSGs for both units X and Y
G	Drax riverside loading / unloading jetty	Loading / unloading of CCGT/OCGT equipment.
H	Mostly hard standing, recycling centre, fuel oil	Site contractor village and car parks, stores compound
Gas Pipeline Option A	Farm land	Option A area within which gas pipeline to be located together with working width and ancillary facilities
Gas Pipeline Option B	Farm land	Option B area within which gas pipeline to be located together with working width and ancillary facilities

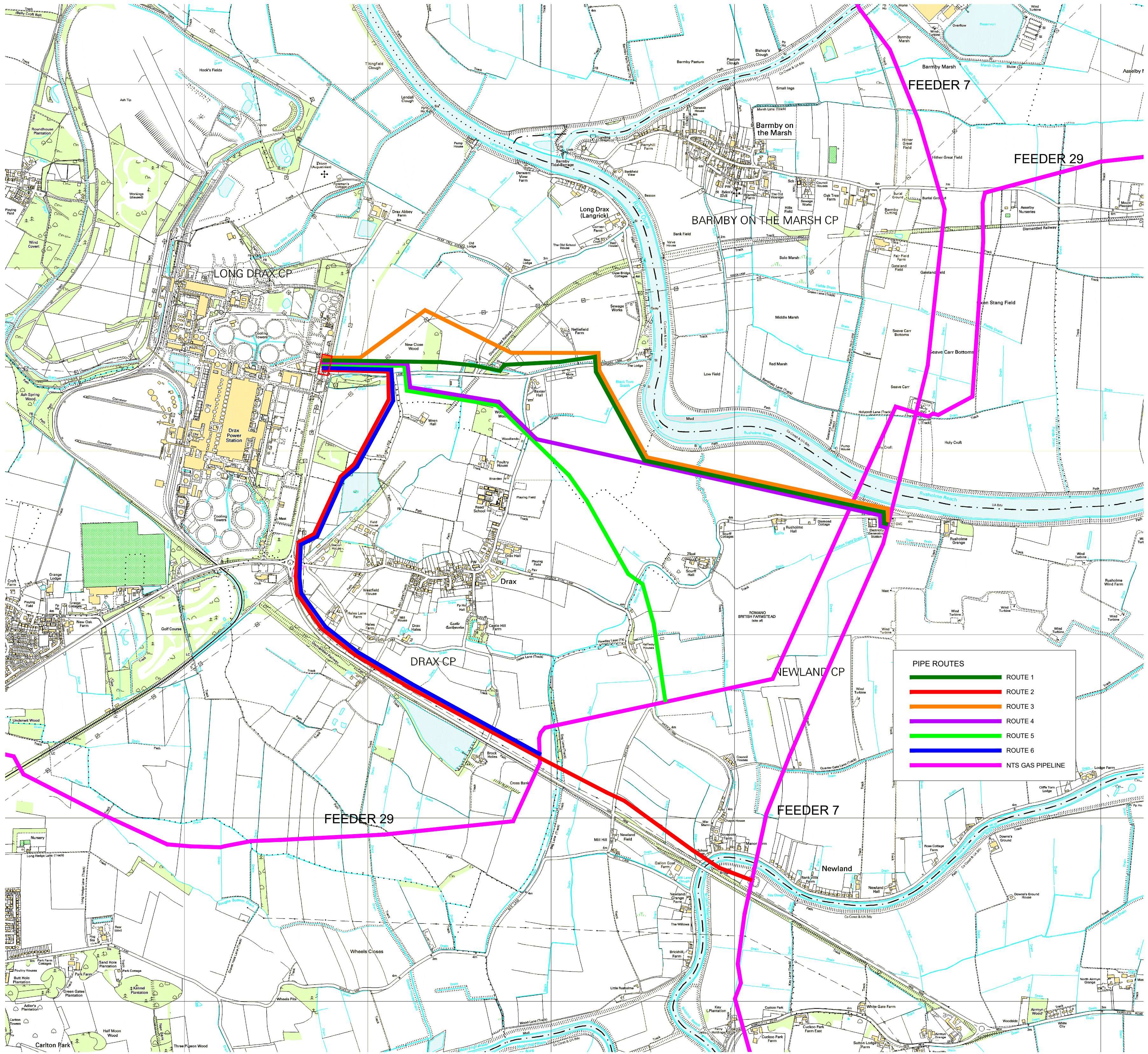


# Appendix C

## **SIX GAS PIPELINE ROUTES CONSIDERED**







FEEDER 7

FEEDER 29

BARMBY ON THE MARSH CP

LONG DRAX CP

DRAX CP

NEWLAND CP

FEEDER 7

FEEDER 29

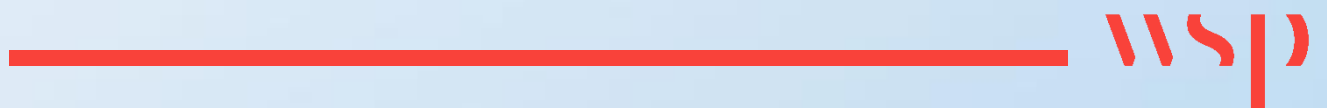
**PIPE ROUTES**

- █ ROUTE 1
- █ ROUTE 2
- █ ROUTE 3
- █ ROUTE 4
- █ ROUTE 5
- █ ROUTE 6
- █ NTS GAS PIPELINE



# Appendix D

## **STATUTORY CONSULTATION FEEDBACK FORM**





# Proposed power generation project at Drax Power Station



## Feedback Form

Thank you for attending today's exhibition, which is an important element of our statutory public consultation for the Repower Project; this period ends on 27th February 2018.

We welcome your views on Drax's proposals to develop gas-fired power generation units and battery storage facilities, and to construct a gas pipeline.

Drax Power Limited will use the personal information supplied in this form solely in connection with the consultation process and the proposed planning application. Responses may be made publicly available, but personal details will be kept confidential. Respondents do not have to provide personal information but this information will help us to understand the range of responses and to provide updates about the project and the outcome of the consultation. Where we use third parties to support this process, we may share this form with them but only under obligations of confidentiality and data protection.

We would also like to keep in touch with you as the project develops. If you would like to be kept informed, please fill in your contact details (postal address, email).

Name: \_\_\_\_\_

Address: \_\_\_\_\_ Postcode: \_\_\_\_\_

Email: \_\_\_\_\_

Age bracket (please tick)  Under 25  25-45  46-60  Over 60

### Which exhibition did you attend?

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Selby Town Hall<br>20th January | <input type="checkbox"/> Drax Sports & Social Club<br>23rd January | <input type="checkbox"/> Junction, Goole<br>24th January |
| <input type="checkbox"/> Selby Town Hall<br>1st February | <input type="checkbox"/> Hemingbrough Church Hall<br>2nd February  | <input type="checkbox"/> no exhibition<br>attended       |

If you do NOT want us to contact you, we would appreciate you leaving us just your postcode so that we can gauge the approximate locations of people who attended today.

Postcode

### Did you comment during the initial phase of consultation?

- Yes  No, not aware of Project  No, but I was aware of Project

### How did you hear about this exhibition? (tick one or more)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Leaflet       | <input type="checkbox"/> Poster                       | <input type="checkbox"/> News article in newspaper or a news report on TV/radio |
| <input type="checkbox"/> Twitter       | <input type="checkbox"/> Facebook                     | <input type="checkbox"/> Advertisement/official notice in newspaper             |
| <input type="checkbox"/> Word of mouth | <input type="checkbox"/> Drax employee communications |   |
| <input type="checkbox"/> Drax website  | <input type="checkbox"/> Letter from Drax             |   |

Please turn over







4th Floor  
6 Devonshire Square  
London  
EC2M 4YE

[wsp.com](http://wsp.com)

6.5 Exhibition Boards

# Repower

## Welcome

---

Drax Power Limited is proposing to repower up to two of its remaining coal-fired generating units (known as Units 5 and 6) and construct up to two **gas-powered electricity generating units**. This would involve Drax re-using certain equipment currently utilised in Units 5 and 6.

In addition, each unit would (subject to technology and commercial considerations) be connected to its own **battery energy storage facility**.

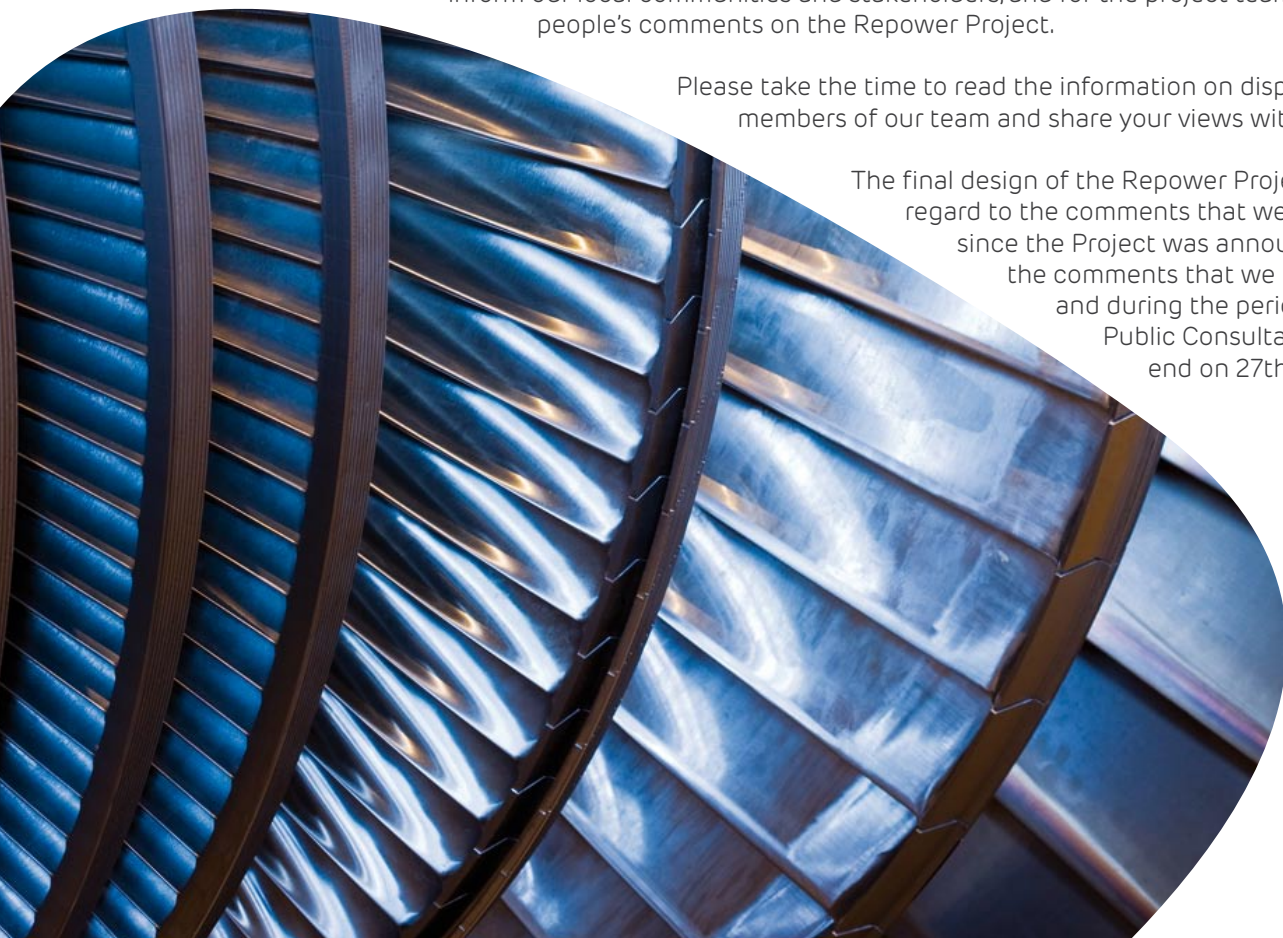
**A new pipeline would provide gas to the new gas generating plants.**

The Drax Repower Project would upgrade and enhance Drax's generation capabilities into the 2030s and beyond, make Yorkshire home to large scale battery technology and provide lower carbon generation in line with Government plans to phase out coal-fired power stations.

Today's exhibition forms part of a comprehensive consultation programme to engage with and inform our local communities and stakeholders, and for the project team to gather people's comments on the Repower Project.

Please take the time to read the information on display, speak to members of our team and share your views with us.

The final design of the Repower Project will have regard to the comments that we have received since the Project was announced last year, the comments that we receive today and during the period of Statutory Public Consultation that will end on 27th February 2018.





## A history of innovation

For 50 years, Drax has continued to innovate in response to the UK's energy needs. The Drax Repower Project is the latest pioneering project undertaken by the company:

**1967** The Selby coalfield is discovered. The Central Electricity Generating Board begins building Drax Power Station to use its coal.

**1974** Drax Power Station starts generating electricity after its first 660MW unit is commissioned. It is the most advanced and efficient coal-fired power station ever built in the UK.

**1975** Drax Power Station is officially opened with three generators and a total generating capacity of just under 2,000MW. It has the capability to power around two million homes.

**1986** Drax doubles in size and capacity, becoming the largest power station in the UK.

**1988** Drax becomes the first power station to invest in retrofitted flue gas desulphurisation (FGD) equipment. Once fully operational in 1995, it removes 90% of sulphur dioxide emissions, making it the cleanest coal-fired power station in the UK.

**2003** Drax Power Station starts co-firing biomass, a renewable alternative to coal.

**2008** Boosted-over-fire-air (BOFA) technology is retrofitted to all boilers, reducing nitrous oxide (NOX) emissions.

**2012** Drax Power Station completes a five-year project, worth over £100m - the largest steam turbine modernisation programme in UK history - to upgrade its high and low-pressure turbines. This saves around one million tonnes of carbon dioxide emissions, equivalent to taking 275,000 cars off the UK's roads.

Drax commits to transforming the business into a mainly biomass-fuelled generator using compressed wood pellets in place of coal. It plans to upgrade the three generating units that came online in the early 1970s.

**2013** The first of three power generating units is fully converted to use compressed wood pellets in April.

**2014** The second power generating unit is upgraded to biomass in May.

Drax completes construction of four large storage domes used to house the biomass supply. Each dome is bigger than the Royal Albert Hall, can hold 75,000 tonnes of high-density wood pellets and is explosion proof.

**2016** The third power generating unit is fully upgraded to biomass.

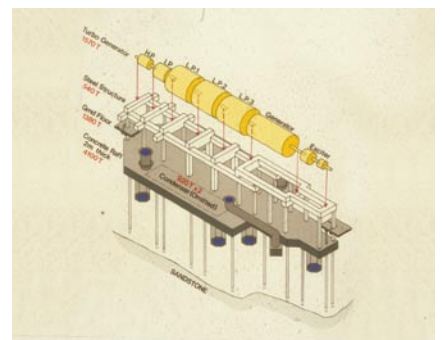
**2017** The Drax Repower Project is announced.



Drax Power Station during construction



Original control room at Drax



Original schematic of turbine



## What is the Drax Repower Project?

- The construction, operation and maintenance of up to two new gas-fired generation units, with a combined capacity of up to 3,600MW (up to 1,800MW per unit), and located predominantly within the boundary of the existing Drax Power Station site.
- The construction, operation and maintenance of up to two battery storage facilities (one per unit and each up to 100MW capacity) within the Drax Power Station site. The storage facilities are likely to be housed in a dedicated stand-alone building.
- The gas-fired generation units would include up to four new turbines (up to two per unit) that can operate in combined-cycle or open-cycle modes.
- The construction, operation and maintenance of a new gas pipeline connection to the National Gas Transmission System (to the east of the Drax Power Station site and on land outside Drax's ownership); two possible routes for the pipeline are being consulted on.
- An electrical connection into Drax's existing substation that would allow electricity to be exported into the National Grid. We plan to use the existing electrical infrastructure within the existing power station site.
- An option to install a temporary crane adjacent to the existing jetty on the River Ouse to bring equipment and materials to the proposed Repower Project during its construction. If Drax decides not to use the jetty, it would transport equipment and materials by road; this may require the utilisation of temporary highway powers between Goole and Drax Power Station, such as the temporary closure of roads and the removal of barriers to enable HGVs and abnormal loads to reach Drax Power Station.
- Land set aside for potential carbon capture technology in the future, and for temporary construction laydown and contractor parking.
- The plant would be designed to operate for up to 25 years. The whole scheme would upgrade and enhance Drax's generation capabilities into the 2030s and beyond.

Separate to the proposed Repower Project and as part of ordinary site reconfiguration proposals, Drax may undertake some works ahead of the Repower Project; these works may involve the demolition and relocation of some existing equipment and buildings within the Drax Power Station site. Such works are likely to require a separate planning permission from Selby District Council, which may be sought this year. Equally, the site reconfiguration works may be included in Drax's application for the Repower Project, and therefore reference to these works can be found in the consultation materials.

Key:	
A	Gas Pipeline A
B	Gas Pipeline B
C	Heat Recovery Steam Generators and Bypass Stacks
D	Sludge Lagoons
E	Battery Energy Storage Facility
F	Turbine Outage Store Building
G	National Grid Substation
H	Generating Units
I	Gas Compressor Building
J	Gas Receiving Facility
K	Contractor Compound



## The Project development area

An indicative site layout is being developed to determine the spatial requirements for the plant and the connections into the existing infrastructure, including the 400KV substation and the main turbine hall.

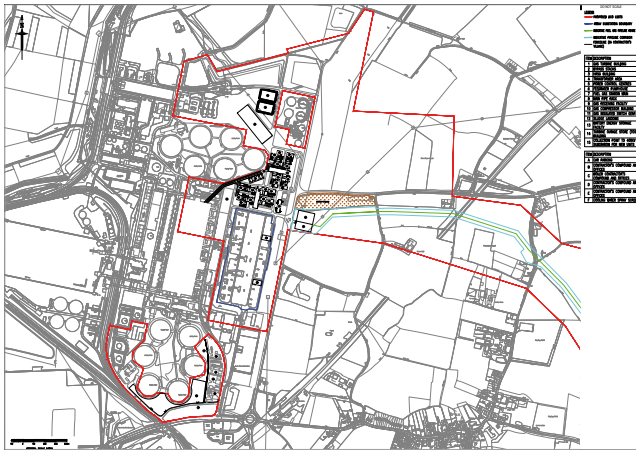
Our design work has determined that space for the gas receiving facility and a gas compressor building cannot be accommodated within the boundary of the existing power station but will be to the east of New Road within the gas pipeline corridor.

Drax will be applying for consent to repower units 5 and 6 and construct up to two gas fired generating units.

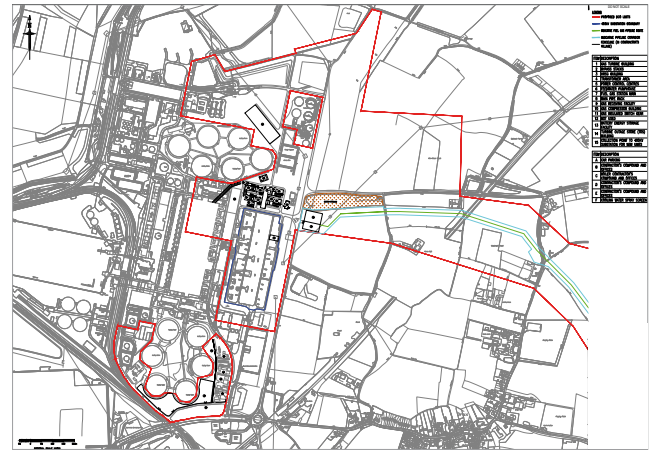
However, at this stage, Drax cannot confirm whether it will construct one gas fired unit (producing 1,800MW of electricity) or two gas fired units (producing another 1,800MW creating a total of 3,600MW of electricity). Accompanying each gas fired unit would be (subject to technical and commercial considerations) a battery storage facility with a capacity of 100MW.

Accordingly:

- one gas fired unit and battery storage facility = 1,900MW of electricity generated.
- two gas fired units and battery storage facilities = 3,800MW of electricity generated.



Site Layout for Two Gas Fired Units



Site Layout for One Gas Fired Unit





## Why Repower?

- Invest in lower carbon, efficient and flexible power generation.
- Support the Government taking coal off the grid.
- Reinforce Drax's role as one of the UK's largest energy producers.

We announced plans for future gas generation at Drax Power Station in June 2017, as part of an ongoing research and development project. The Project is part of Drax's strategy to play a vital role in changing the way energy is generated as the UK moves to a low carbon future.

The Repower Project would repower up to two of our existing coal units by re-using some of the infrastructure in newly constructed gas fired generating units and extend their operations into the 2030s.

The Repower Project is a response to the revolution taking place in our energy system. Renewable technologies now account for a larger proportion of Great Britain's electricity sources than ever before, and they're growing.

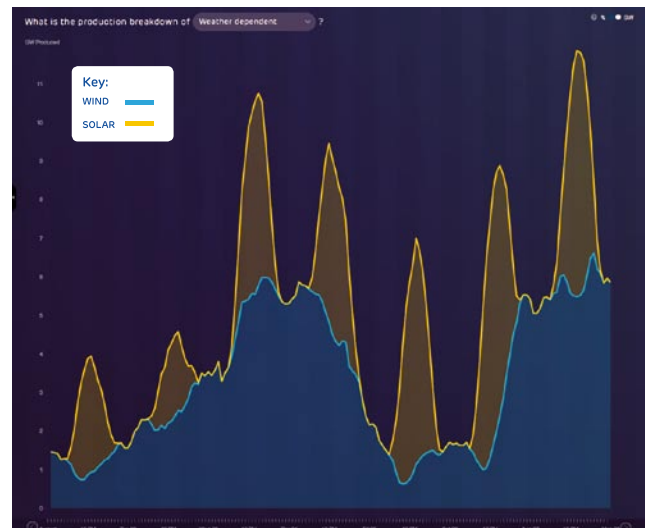
Last year was a record-breaking one for renewables. Biomass, wind and hydro all registered their highest energy production ever, while solar recorded its highest ever peak output.

However, in a power system increasingly made up of intermittent renewables, it is even more important to have a range of technologies that can respond quickly to spikes in demand and drops in supply - for example, when the sun isn't shining and the wind isn't blowing.

In short, what the power system of today needs is flexibility and security.

The Drax Repower Project would enable Drax to provide even greater flexibility to the national electricity grid. Our proposed new gas units and, subject to technical and commercial considerations, the new battery storage facility(ies), combined with our existing biomass units, would provide low carbon electricity at significant scale at short notice when the system needs it. For example, in response to very low wind speeds affecting wind power productivity, unexpected power station unit outages elsewhere in the country, or times of high energy demand, particularly in the winter. It will also keep us on track to meet our carbon-reduction challenges.

Our plans are also a response to the UK Government's commitment to see all coal-fired generation phased-out in this country by 2025.



Case study from [electriciansights.co.uk](http://electriciansights.co.uk) showing weather dependent nature of wind and solar power generation on Great Britain's electricity system, August 1 - 8, 2016



## The role of gas in the energy mix

- Gas generation plays a key role in the UK's energy system.
- Global gas reserves are diverse.
- Gas power plants can run 24 hours a day or provide back-up to intermittent renewables, like wind and solar power.

Nearly 45% of the country's power already comes from gas, mostly generated by combined cycle gas turbine (CCGT) power plants.

CCGT plants can deliver a steady supply of baseload power - just like Drax Power Station currently does with both coal and biomass. In addition, the gas turbine technology that Drax would be using can generate electricity, in response to peaks and troughs in demand.

Looking to the future, gas generation will play an increasingly important role supporting the energy grid to ensure security of supply.

### What is Combined Cycle and Open Cycle technology?

Subject to further studies, the gas turbine generating units will be designed to operate in both open cycle and combined cycle mode. When operating as an open cycle gas turbine (OCGT), the exhaust gas from the gas turbine will be sent direct to the atmosphere through a bypass stack.

When operating as a combined cycle turbine (CCGT), natural gas is fired into the combustion system in order to drive a power turbine that is connected to an electricity generator. The hot exhaust gases generated are passed through a Heat Recovery Steam Generator before being emitted to the atmosphere through a stack.

The steam that is generated by the boiler is used to produce additional electricity, and the steam leaving the steam turbine is condensed and this water is returned to the process for reuse.

The combined technology would mean that each gas unit will have up to four stacks, meaning that should we construct two gas generating units, there would be up to eight new stacks.

The efficiency of the generating turbines is expected to be up to 63%, compared with coal-fired plant that are 35-40% efficient.

Optimising energy in this way significantly increases the efficiency of the operation.

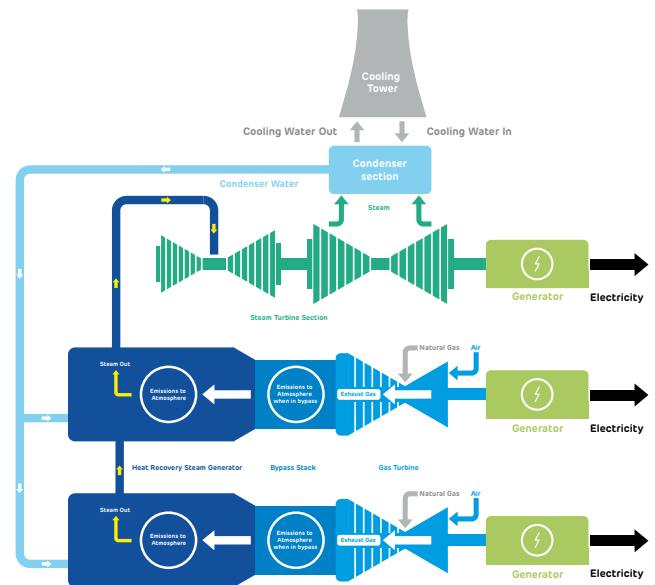


Diagram showing how the Repower gas units would operate

### What is a battery storage unit?

Battery technology represents an opportunity to use our energy system more efficiently. Historically, electricity has had to be used as soon as its generated because it has been difficult to store. At times this can be inefficient, such as when wind and solar farms are generating more clean electricity during the summer than what is needed to meet national demand. However, thanks to recent advances in research and innovation, the prospect of storing electricity is now becoming a reality.

Subject to technology and commercial considerations, we are proposing that each repowered unit would be connected to its own battery storage facility, each facility with a capacity of up to 100MW and located within the boundary of the Power Station site.





## Local consultation & engagement

In October/November 2017, Drax shared its outline proposals with the local community, local politicians, the media and a range of other stakeholders and statutory consultees. Homes and businesses in the vicinity of Drax received a leaflet about the Repower Project, and exhibitions were held in the area to seek initial comment and feedback on issues that needed to be considered in taking the Repower Project forward.

This informal engagement provided information on the development area and the location of key elements of the Repower Project including the proposed generating units, battery storage facility(ies) and the gas pipeline connection.

### Local feedback

Over 120 people attended the exhibitions, with over a third completing feedback forms. Based on the feedback received more than 71% of people were supportive of the Repower Project, with 17% of people neutral and 7% of people opposed (5% did not express a view).

### Comments included:

- Support for the promotion of new gas turbine technology on the Drax Power Station site and the role it would play in providing a flexible and secure energy supply.
- The role of gas generation in the wider energy mix alongside renewable technologies.
- Support for re-using the existing site for new development.
- Potential disruption for local communities and landowners during construction including noise and construction traffic.
- Control of light pollution from the plant in operation and the jetty if used for the transport of construction material.
- Measures to control emissions.

### What's changed since then?

Since the informal engagement, we have undertaken further work to develop and assess the Repower Project including:

- Development of the site layout and sizing of the main buildings and structures.
- Further consideration of the two gas pipeline route options - both options remain open for consideration, with similar environmental impact. We are currently in discussions with National Grid about the options to connect to their National Transmission System.
- Preliminary construction traffic routes have been identified; it is no longer a preference to use the jetty to transport larger plant and equipment to the site during construction due to the potential environmental effects, although it remains an option at this stage pending a final decision.



## Project construction

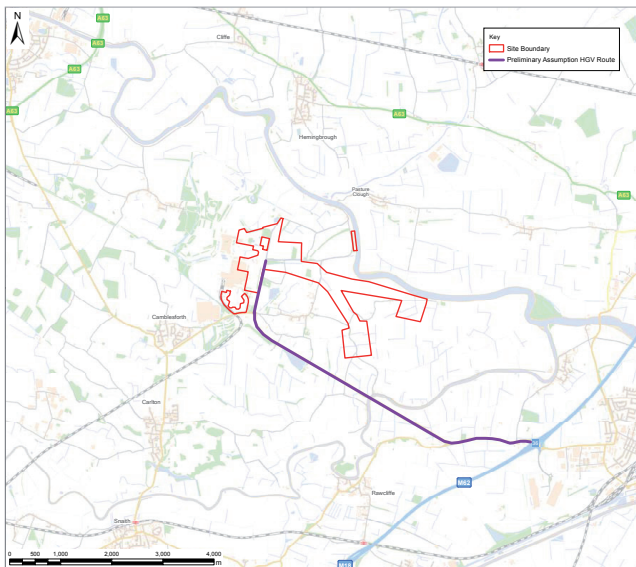
### Transport

Drax's preferred option is to bring construction material to site by road, although the movement of larger plant and equipment via the Port of Goole and offloaded at the existing jetty on the River Ouse is still an option.

However, the scope for using the jetty is limited given the restrictions on the weight of loads that could be transported, the limitation on the type of barge that could be used so as to avoid dredging of the River Ouse which would likely have impacts on ecology, and a reliance on tidal windows for movements.

We have also listened to concerns about the proximity of residents to the jetty and the impact of lighting during the use of the jetty.

The preferred construction transport route is 'tried and tested'. Some works to the highways may be necessary in order to bring larger plant and equipment to site. This would involve the removal of street furniture and temporary closure of part of the highway, normally at night and for the duration of the movement only. The land will be reinstated to its former condition once the loads have been delivered.



Main construction route

Construction workers would travel to site via the existing road network. Contractors would be encouraged to use public transport, cycling and car sharing to reduce the number of cars coming to site.

Access for all construction traffic would be through the existing access entrances to the Drax Power Station.

At this stage, it is envisaged that access for the construction of the gas pipeline would also be from New Road to the proposed construction compound north of Carr Lane.

### Construction Programme

It is proposed that the Repower Project would be constructed in two stages. The repowering and construction of the first unit would be constructed over a three year period, which would be followed by a 12 month break in construction before work on the second unit starts.

The first unit could be repowered and operational in 2022/23, with the second unit completed in 2026/27.

The battery storage facility(ies) and gas pipeline would be constructed within the first half of this programme. The gas pipeline would take around 12 months to install.

### Construction Working Hours

During construction, it is expected that the normal hours of working would be 7.00am to 7.00pm Monday to Friday, and 7.00am to 1.00pm on Saturdays.

It is likely that some construction work and deliveries will be required to be 24 hours at certain times during the construction programme; if this is necessary, prior permission will be sought from Selby District Council.



## The gas pipeline

The gas turbine generating units will require a new gas connection from the National Transmission System, the main gas network that serves the country.

The connection would comprise:

- A new underground pipeline approximately 3km in length (600mm diameter) extending eastwards from Drax Power Station and primarily across agricultural land. It would be installed at a depth of at least 1.2m.
- An Above Ground Installation (AGI) at the connection to the National Transmission System, likely to be housed in a compound (likely to have a footprint of 60m x 30m and a height of up to 2.5m).
- A Gas Receiving Facility (GRF) to connect the pipeline to the gas generating units (likely to have a footprint of 35m x 75m and a height of up to 8.5m).

The construction would be undertaken within a fenced-off strip of land which may vary in width along the pipeline route. This is likely to be up to 30m wide for standard sections and may be expanded up to 100m wide around crossings of roads and drainage ditches to accommodate equipment and storage areas. The pipeline would be constructed by excavating a trench into which the pipe would be laid and then covered. Areas containing physical or environmental constraints may make use of trenchless crossing techniques such as boring or horizontal drilling.

Once the pipeline is installed, the land would be re-instated to its former use and condition. The loss of hedgerows would be avoided where possible and sections of hedgerows that are removed would be replaced.

Following the construction of the pipeline, agricultural activities can continue above the pipeline. However, there would be some restrictions surrounding activities, including deep ploughing and the planting of trees.

The pipeline, AGI and GRF would be located outside of the main boundary of the Drax Power Station site, on land that Drax does not currently own. In order to lay the pipeline, Drax will therefore need to either reach agreement with relevant landowners to acquire the necessary rights in their land, or seek powers from the Secretary of State to compulsorily acquire the necessary rights. We have been speaking to the owners of land that might be affected by the pipeline connection works.

## Route options for the gas pipeline

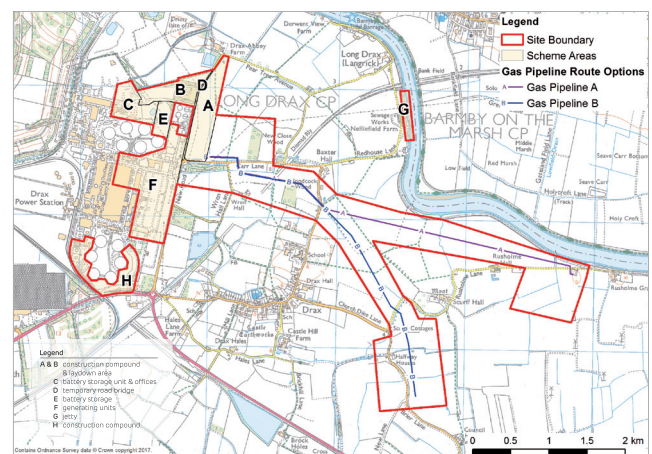
We are consulting on two gas pipeline corridors connecting the proposed Gas Receiving Facility for the Repower Project to two different locations on the National Transmission System (NTS). There are two pipes, or "Feeders", which we could connect into and they are known as "Feeder 7" and "Feeder 29".

To reach these Feeders from the Drax Power Station site, there are two route options (A and B):

- Option A: running to the east and connecting with the NTS either east of Brier Lane or off Rusholme Lane, near to the existing National Grid Drax Above Ground Installation.
- Option B: running south east and connecting with the NTS at the junction where Brier Lane meets New Lane.

A decision on which route option is preferred will be made following consultation.

Constraint	Location of gas pipeline route	Impervious affected?	Archaic (Scheduled) sites affected?	Landscape and visual impact of the proposed Above Ground Installation	Risk (Type of Way)	Tree to be lost?	Heritage assets affected?	Construction suitability of the proposed Above Ground Installation	Gas capacity, responsiveness and resilience
Option A (Connection to Feeder 7 via an Above Ground Installation at Rusholme Lane)	Primarily arable with some improved grassland	Yes	Yes	Yes	Yes	Likely	Potentially	Likely to be more heavily affected due to proximity to the existing National Grid Above Ground Installation on Rusholme Lane	Feeder 7 is a shorter pipeline and would require a number of high capacity interconnectors to deliver the capacity of gas or the gas pressure required for the Repower Project to meet the need for flexible and responsive electricity generation
Option A (Connection to Feeder 29 via an Above Ground Installation at Rusholme Lane)	Primarily arable with some improved grassland	Yes	Yes	Yes	Yes	Likely	Potentially	Good - open field location but will require a long construction and permanent access east off Rusholme Lane	Feeder 29 is more likely to deliver the capacity of gas and the gas pressure required for the Repower Project to meet the need for flexible and responsive electricity generation
Option B (Connection to Feeder 29 via an Above Ground Installation off Brier Lane)	Primarily arable	Yes	Yes	Yes	Yes	Likely	Potentially	Good - open field location with direct access off Blue Lane	Feeder 29 is also potentially more resilient as it connects to adjacent gas networks of both the west coast (Derbyshire) and north west (Barnsley) feeds
Conclusion	No difference with Option B but no site specific information	Option B (Feeder 29) will potentially result in the loss of more field and therefore rich hedgerows	No difference	The Above Ground Installation option (Option B) would be visible from a greater number of residential properties	No difference	Option B (Feeder 29) may potentially result in the loss of trees with suitability for roosting bats	Option B (Feeder 29) has the greater potential for future extension. Subject to preliminary surveys and effects on adjacent historic field boundary	Option B (Feeder 29) and Option A (Feeder 29) more Resilient	Option B (Feeder 29) and Option A (Feeder 29) are more resilient as they connect to adjacent gas networks in the west coast (Derbyshire) and north west (Barnsley) feeds



## Environmental Impact Assessment

As part of the planning process, we will be undertaking an Environmental Impact Assessment (EIA). The EIA will consider the potential impact of the Repower Project on a range of environmental topics, including:

- Air quality
- Noise and vibration
- Historic environment
- Biodiversity
- Landscape and visual
- Ground conditions and contamination
- Water resource, quality and hydrology
- Waste
- Socioeconomics
- Cumulative impact with other projects in the area

Our EIA is being undertaken in accordance with a Scoping Opinion issued to us by the Secretary of State in October 2017, legislation, guidance and best practice. It is being carried out by WSP, a specialist environmental and engineering consultancy.

The work completed to date is set out in a Preliminary Environmental Information Report (PEIR) which contains the results of the preliminary assessment of the likely significant environmental effects of the Repower Project, as well as an indication of proposed mitigation measures to avoid, minimise or reduce any adverse effects.

Preliminary environmental information is produced to inform interested parties of the potential environmental effects of a proposed scheme, on which they are being consulted. The PEIR does not contain the final findings, as the EIA is ongoing and a full Environmental Statement (ES) will be submitted as part of the DCO application.

The Non-Technical Summary of the PEIR provides an overview of the findings and preliminary assessments. Copies of both the PEIR and the Non-Technical Summary can be viewed at today's exhibition, at local council offices and libraries and can be downloaded from <http://repower.drax.com>

The key potential environmental effects associated with the construction and operation of the Repower Project are considered to be air quality, noise, traffic and transport and landscape and visual.



## Environmental assessment

### Air Quality

The gas fired plant would contribute some emissions to the air via the emissions stacks.

These emissions would include:

- nitrogen oxides
- carbon monoxide

These emissions would be regulated by the Environment Agency through an environmental permit

The results of the air quality assessment have been used to inform the height of the emissions stacks so as to protect people and wildlife from the effects of emissions. It is currently anticipated that the stacks would be up to 120m in height: for comparison, the main stack at Drax is 259m high. With stack height set to 120m, no exceedances of air quality limits for human health are predicted.

The preliminary assessment has concluded that emissions of nitrogen oxide and ammonia may contribute to nitrogen and acid deposition over protected ecological sites. Further assessment is being undertaken and potential mitigation options will be discussed with Selby District Council, the Environment Agency and Natural England.

Measures will be implemented during the Project's construction to minimise dust generation, including sheeting of vehicles, appropriate handling and storage of topsoil, and ensuring vehicles are well maintained.

### Noise

A preliminary noise assessment of the construction and operational noise impacts has been undertaken taking into account current noise levels and proximity to homes and other users sensitive to noise in Barlow, Camblesforth, Drax and Long Drax, and other individual properties closer to the proposed site of the gas generating units and the gas pipeline corridors.

The assessment concludes that with appropriate mitigation all potential significant effects can be avoided.

During construction, noise will be controlled through a Construction Environment Management Plan; these measures are likely to include restrictions on plant and equipment that generate noise, restricting noisy works to the daytime, and compliance with agreed construction traffic routes.

### Traffic and transport

To assess the impacts of the construction phase on the transport network, a preliminary transport assessment has been undertaken and is included in the PEIR.

It is envisaged that most construction traffic will use the M62 and A645 as this is the most direct route to the site. During the peak of construction there are expected to be up to 140 HGV movements per day. The highest number of car trips per day to the site during construction will be approximately 400. The preliminary transport assessment concludes that these levels of increase in traffic would not have significant adverse effects on the road network.

A Travel Plan and Construction Traffic Management Plan would be developed to minimise disruption to road users.

During operation, the proposed plant is not anticipated to result in a significant increase in the operational workforce at Drax or require additional deliveries. Therefore, there will be a negligible effect on traffic and transport in the area once the Repower Project is completed.



### Landscape and Visual

A landscape and visual impact assessment has been undertaken which considers the impact of the Repower Project on local landscapes and from a number of viewpoints.

Whilst the Repower Project would be part of an existing industrial landscape, the scale of the plant and battery facility(ies) is likely to have some adverse effects on the landscape character of surrounding farmland and the landscapes around the River Ouse and River Aire.

There are also likely to be adverse effects on local views towards the Repower Project from local public rights of way and places within 2km.





## Planning and consultation

### The Planning Process

Given its generation capacity (more than 50MW), the Repower Project is classed as a "Nationally Significant Infrastructure Project". We are therefore required to submit an application for a Development Consent Order (DCO) to the Secretary of State for Business, Energy and Industrial Strategy via the Planning Inspectorate, a central government office.

We intend to submit our DCO application within the next six months. If accepted, an Examining Authority will be appointed, comprised of one or more planning inspectors from the Planning Inspectorate. The Examining Authority will undertake an independent examination of the application before making a recommendation to the Secretary of State, who will make the final decision as to whether to grant the DCO for the Repower Project.

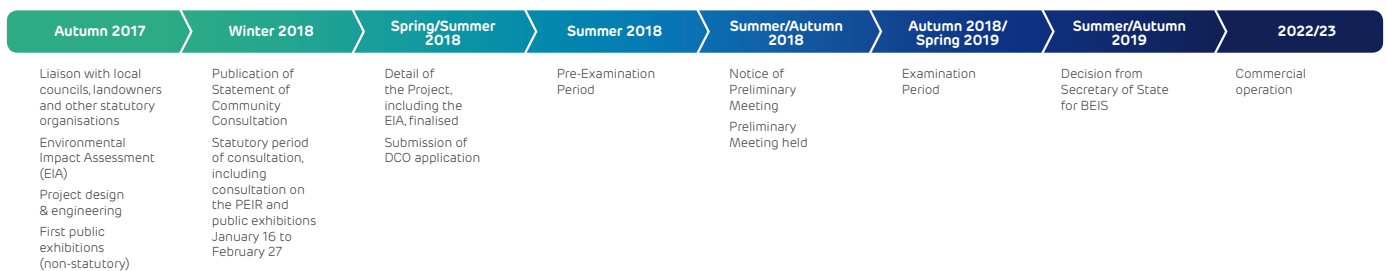
Selby District Council and North Yorkshire County Council are key consultees in the process, along with local parish councils and other local and national organisations, such as East Riding of Yorkshire Council, the Environment Agency and Natural England.

In summary, the process that Drax is following in order to obtain a DCO is:

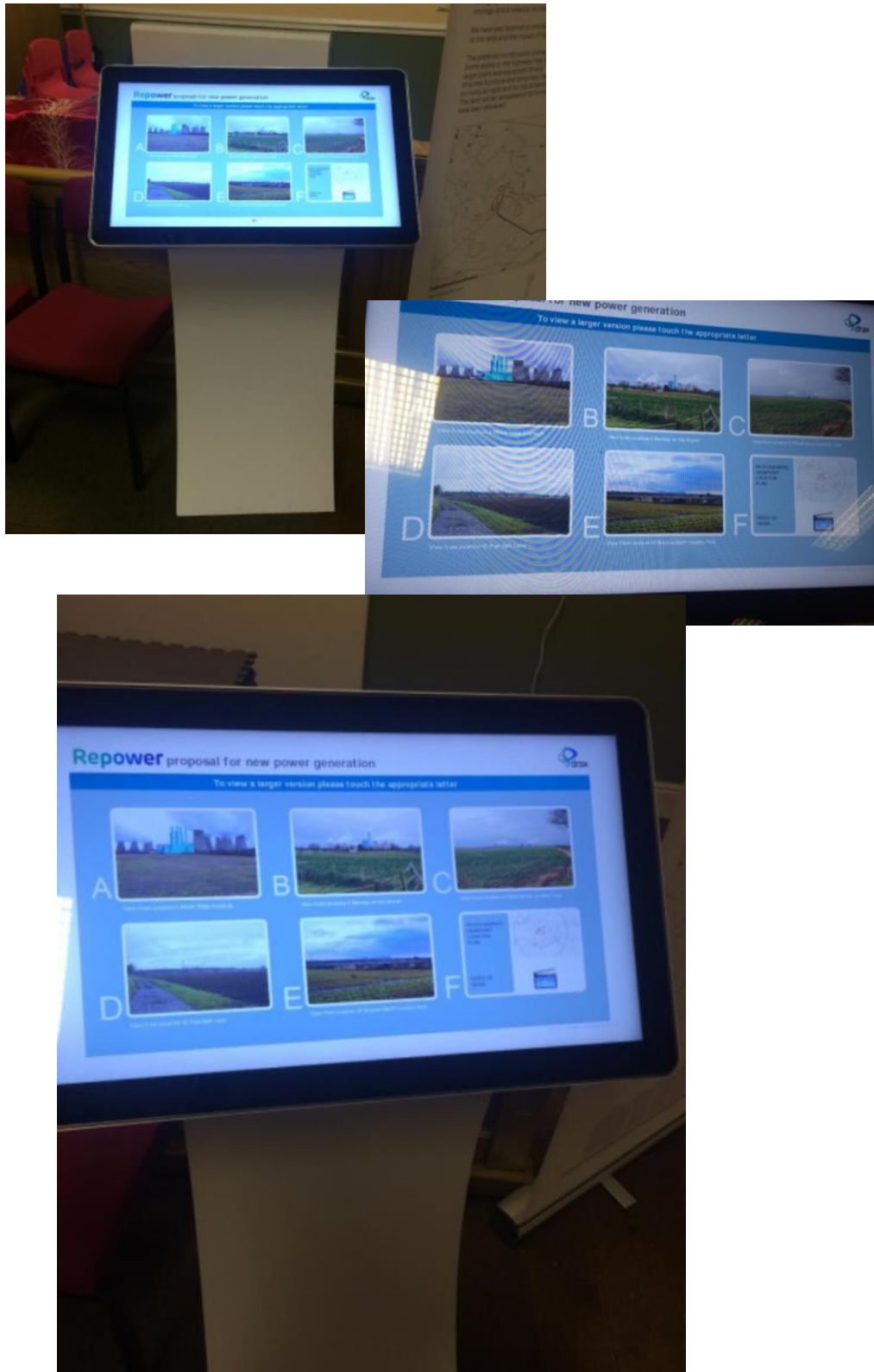
- Informal and statutory consultation with local councils, local landowners, local communities, the public and other interested parties.
- Feedback received over recent months and during this period of statutory consultation will help shape the DCO application; the statutory consultation is being carried out in accordance with our Statement of Community Consultation which can be downloaded from the Project website or viewed at local libraries and council offices.
- Provide a Consultation Report with the application for the DCO that demonstrates how we have consulted with the public and have had regard to consultation feedback.
- If our DCO application is accepted for examination, we will publish notices in local and national media updating the public and inviting them to make their own representations to the Planning Inspectorate about the application.

In advance of submitting the DCO application, we are also considering undertaking some on-site reconfiguration works, including the relocation of facilities within the existing Drax Power Station site complex. This work may need to be undertaken during the course of 2018. If required, we will apply to Selby District Council for a planning permission for these reconfiguration works under the Town and Country Planning Act 1990. However, we may also carry them out at the same time as carrying out the Repower Project, and so the reconfiguration works may also be included in our DCO application. For this reason, the PEIR includes the site reconfiguration works as part of the environmental assessment.

## Project Timetable/Key Milestones



## 6.6 Public consultation, interactive board



## 6.7 Drax Online Feedback Form

<https://www.surveymonkey.co.uk/r/drax-repower-2018>

### 1. Name

### 2. Address

### 3. Postcode

### 4. Email

### 5. Age bracket

- Under 25
- 25-45
- 46-60
- Over 60

### 6. Which exhibition did you attend?

- |   |  |
|---|--|
| <input type="checkbox"/> Selby Town Hall - 20 January           | <input type="checkbox"/> Selby Town Hall - 1 February        |
| <input type="checkbox"/> Drax Sports & Social Club - 23 January | <input type="checkbox"/> Hemingbrough Town Hall - 2 February |
| <input type="checkbox"/> Junction, Goole - 24 January           | <input type="checkbox"/> no exhibition attended              |

### 7. Did you comment during the initial phase of consultation?

- Yes
- No, not aware of project
- No, but I was aware of project

### 8. How did you hear about this exhibition? (tick one or more)

- |   |   |
|---|---|
| <input type="checkbox"/> Leaflet  | <input type="checkbox"/> Advertisement/official notice in newspaper |
| <input type="checkbox"/> Poster   | <input type="checkbox"/> Word of mouth                              |
| <input type="checkbox"/> News article in newspaper or a news report on TV/radio | <input type="checkbox"/> Drax website                               |
| <input type="checkbox"/> Twitter  | <input type="checkbox"/> Drax employee communications               |
| <input type="checkbox"/> Facebook   | <input type="checkbox"/> Letter from Drax                           |

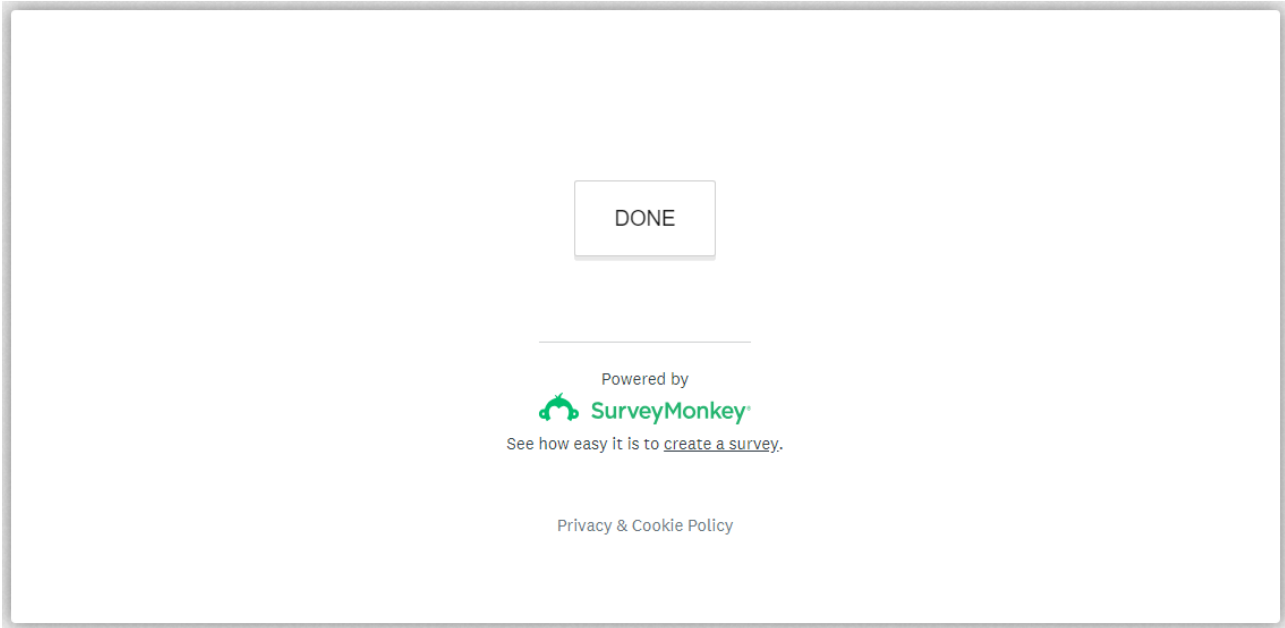
9. Drax has carried out and considered further studies and prepared a Preliminary Environmental Information Report that identifies potential benefits and impacts of the Project. Do you have any comments on the Report's findings?

10. If you have any comments and observations about the Project, including the options for the gas pipeline route, please share below.

11. How do you feel about Drax's proposals?

- Supportive
- Neutral
- Opposed





## 6.8 Frequently Asked Questions (online)

[repower.drax.com/#frequently-asked-questions-faqs](http://repower.drax.com/#frequently-asked-questions-faqs)

# Frequently asked questions (FAQs)

## Our plans

Q1. Why do we want/need to build a gas-fired power station at Drax?

A1. Plans for gas at Drax Power Station were announced in June 2017 as an ongoing research and development project and are part of Drax's strategy to play a vital role in changing the way energy is generated as the UK moves to a low carbon future. These options could repurpose up to two of our coal assets and extend their operation into the 2030s.

The options could create up to 3.6GW of new gas generation capacity and, subject to technical and commercial considerations, 200MW of battery storage. They are subject to a positive investment decision and would need to be underpinned by a 15-year capacity market contract.

The upgrade would enhance Drax Power Station's flexible and responsive capability, and make Yorkshire home to large scale battery technology.

These options would, if developed, increase Drax's ability to provide the flexible generation and grid support services Britain's electricity system will need as coal and other large power stations are turned off.

Q2. Why doesn't Drax convert Units 5 and 6 to run on biomass?

A2. At Drax we've converted half of the power station to biomass, the only flexible, reliable renewable available at scale.

We believe repurposing existing assets will keep costs down and enable faster development, so the type of capacity needed will be available quickly and cost effectively.

Looking at coal-to-gas upgrades does not undermine our commitment to biomass generation at the plant and in the UK. We are investigating the feasibility of repowering to gas, this is in addition to the work we're doing to look at options for repowering more units to biomass.

Q3. Where will Drax source the gas from?

A3. We will buy our gas from the UK market through the National Balancing Point (NBP) and it will be supplied via the National Grid. We would expect gas to come from the North Sea, a number of different European countries, the Middle East and further afield. And given this diversity of sources, we are confident that we will maintain a secure supply of gas. Part of the reason we're exploring gas as an option is that it provides an opportunity to use existing infrastructure to keep costs down – that includes access to a relatively close, existing gas pipeline to the south of Drax, from which we will buy gas from the UK market.

## Planning & consultation

Q1. When does Drax expect to submit a Development Consent Order (DCO) application- and a decision?

A1. We are aiming to submit an application for a Development Consent Order in the second quarter of this year (2018), subject to feedback from our local authorities, our local communities, other stakeholders, the Planning Inspectorate, and our planning, engineering and environmental assessment work. Following our submission there are a number of steps in the process including:

- The acceptance of our application for examination by the Planning Inspectorate
- An examination period, which registered parties will be able to take part in.
- The submission of a recommendation by the Examining Authority to the Department of Business, Energy & Industrial Strategy (BEIS)
- A decision from the Secretary of State at BEIS, likely to be in the summer/autumn 2019.

Q2. When could the Drax Repower project enter operation?

A2. We could expect to see the project generating electricity during 2022/23.

Q3. How are Drax consulting local people?

A2. We have undertaken two phases of local consultation. The objectives of the "informal" first phase (held in November) had been to introduce the project and gather people's initial comments and feedback.

The second phase, a period of Statutory Consultation, ran from January 16<sup>th</sup> to February 27<sup>th</sup>. Our plans for this have been published in a **Statement of Community Consultation**; a SoCC notice was published in the Yorkshire Post on 2<sup>nd</sup> January 2018. We are also consulting Selby District Council, North Yorkshire County Council, East Riding of Yorkshire Council, local parish councils, landowners and a range of relevant statutory authorities.

Homes and businesses in the local area (as well as a range of statutory organisations) received **a leaflet about the project and the statutory consultation process**.

Q4. Has Drax shared its plans with its employees and their trade unions?

A4. Yes, we have explained to our people that we are looking at the feasibility of re-powering our coal units, and acknowledge the strategy that we are pursuing to transform Drax's operations. We will talk further with our people as the project moves forward.

## Environmental Assessment

Q1. What steps will Drax take to preserve the local environment?

A1. Every effort will be made to minimise the project's impact on the local environment, both during its construction and operation. Its design and the steps to mitigate its impacts is a part of the consultation and planning process.

**Q2. What about the environmental impact of the new generating plant?**

A2. A Preliminary Environmental Information (PEIR) report has been produced and an Environment Impact Assessment (EIA) will be undertaken to assess the likely significant environmental effects of the project. The PEIR was a key part of the Statutory Consultation process held in January and February and is available to view on this website (and can be viewed at local libraries and council offices).

The EIA process considers a range of issues including noise, air quality, flood risk, local ecology, visual impact, heritage/archaeology and transport. The EIA forms a central part of the DCO application and must comply with national and local policies and guidelines. A full Environmental Statement will accompany the application for development consent.

**Q3. What about the "cumulative impact" of having gas-fired power generation units at Drax and Eggborough?**

A3. A cumulative impact assessment of both projects and other major operations and development in the area will be fully addressed in our application for development consent.

**Q4. What is the footprint of the new generating plant? Will it be noisy? What height will the stacks be? What about its visual impact?**

A4. The development area for the proposed power plant and electricity substation lies within our existing site. There will be up to eight stacks in the power plant and they are likely to be up to 120m high, subject to further technical and environmental studies that we are carrying out. For comparison, the main stack of the existing coal-fired units is over 200m high.

Whilst local villages shouldn't hear the new plant running, the noise produced during operation of the power plant will be strictly limited by the requirements of the Development Consent Order (similar to planning conditions) which will be enforced by the local authority and limits set by the Environment Agency (EA). These limits will comply with latest guidance and standards.

Noise modelling is being undertaken to ascertain the current background noise levels and the typical noise levels from a gas-fired plant will be modelled on top to determine the likely impacts. No significant effects are anticipated at this stage.

Emissions to air will be strictly monitored and regulated by the Environment Agency, through an Environmental Permit which is required for the plant's operation.

The new generating plant will be predominantly situated within the Drax site and set against other features of the power station (such as the cooling towers, boiler house and biomass domes), thus minimising its visual impact.. The visual impact of the project is a part of the PEIR and EIA processes; we had photomontages of the project to show people during the statutory consultation period.

**Q5. Will there be an increase in road traffic?**

A5. There will be Heavy Goods Vehicle traffic during construction. A construction management plan would in due course be prepared to manage HGV traffic going through local villages, which will minimise congestion, noise and dirt in the local area. Once operational, there will be a negligible increase in traffic movements.

**Q6. Is it going to smell?**

A6. The combustion of natural gas in a power station does not produce any noticeable odour.



Q7. Will there be any emissions from the power station? Will the mix of emissions from your biomass units and the gas units be harmful?

A7. A plume consisting mainly of water vapour may be visible from the stacks of the generating plant but only under certain atmospheric conditions (cold and dry with high pressure); this is not 'smoke'. The emissions from the stacks will be strictly limited by the Environment Agency (EA) as part of an operational environmental permit, and will not have any significant effect on people or the environment. The stacks will also emit some carbon dioxide (CO<sub>2</sub>).

Our PEIR considers the cumulative impact of the emissions from all our units.

Q8. Is there an increasing risk of flooding in the area? Will we carry out a risk assessment?

A8. We believe that the existing flood defences are sufficient but this matter will be examined in our EIA work for the DCO application process.

### Gas & Electricity connections

Q1. Where will the gas pipeline be routed?

A1. We consulted on two possible routes for the underground gas pipeline (c3 km long to connect into the National Gas Transmission System) and before making a final decision we will take into account various factors including the views of the relevant landowners, environmental impacts, engineering considerations and planning constraints. Whilst we will deploy an underground gas pipeline, there will be a need for "PIG traps" (above ground points of access for maintenance equipment) and other above ground installation (but not regarded as intrusive); their proposed locations have not been finalised.

Where the gas pipeline is eventually routed, the land will be reinstated.

Q2. Will there be a need to build or upgrade the existing connection to the national transmission system?

A2. At this time, we are expecting to use Drax's existing electricity connections and related grid infrastructure. We may need to make some minor alterations to these but we do not expect there to be a need to erect additional transmission towers.

### Local economic/community benefit

Q1. How will the power station benefit the local area?

A1. The proposed power station can bring a range of benefits to the area during both the construction and operational phases. Construction will provide a large number of job opportunities. The new plant is expected to have an operational life of up to 25 years so extending the life-time of the whole power station. For many years, Drax has **made a major contribution to the local economy** and is an active **supporter of the local community**; this major project will further strengthen that commitment. A detailed socio-economic impact study will be submitted as part of the DCO application (via the Environmental Statement).

Q2. How can local businesses get involved in the project?

Q2. Whilst we are still at an early stage in the project, businesses can register details with our Procurement team. In due course, subject to us securing the DCO and giving the project the "green light", we will appoint a major Original Equipment Manufacturer (OEM) to be the Engineering, Procurement, and Construction (EPC) contractor, who most likely will take the lead on sub-contracting elements of the project.

Q3. I'm local to the area and looking for work. How can I apply for a job?

A3. We publish vacancies on our website and via local and national employment agencies.

6.9 Drax Repower Project 3D Model (Vimeo)

<https://vimeo.com/251569481>

