Yorkshire Green Energy Enablement (GREEN) Project

Statutory Consultation Booklet

October 2021





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Executive summary

The Yorkshire Green Energy Enablement (Yorkshire GREEN) Project is a proposal by National Grid Electricity Transmission plc to upgrade and reinforce the high-voltage power network.

It will enable more low-carbon energy to be carried to homes and businesses in Yorkshire and beyond and will support the UK government's targets to achieve net zero by 2050.

We need to build Yorkshire GREEN because the existing electricity transmission system does not have the capacity for all of the new low-carbon electricity generation that is expected to connect to the network over the next ten years and beyond.

Yorkshire GREEN includes some new infrastructure: substations, overhead lines, underground cables and cable sealing end compounds (where underground cables meet overhead lines). We would also upgrade the existing transmission system and install new equipment at some existing sites.

Your opportunity to comment – Statutory consultation

We want to carry out genuine and meaningful consultation. We held a non-statutory consultation in spring 2021 and we have carefully considered all the feedback we received, alongside other information, and are now able to present our more detailed design for Yorkshire GREEN.

This statutory consultation, starting on Thursday 28 October 2021 and running until Thursday 9 December 2021, is your opportunity to comment on our proposals for Yorkshire GREEN before we submit our application for a Development Consent Order (DCO) in winter 2022/23.

This booklet contains information on our updated proposals, what we're consulting on and how you can get involved.



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National Grid – who we are, and how we work

National Grid sits at the heart of Great Britain's energy system, connecting millions of people and businesses to the energy they use every day. We bring energy to life: in the heat, light and power we bring to our customers' homes and businesses; in the way that we support our communities and help them to grow; and in the way we show up in the world. It is our vision to be at the heart of a clean, fair and affordable energy future.

Within the National Grid Group there are distinctly separate legal entities, each with their individual responsibilities and roles. These are shown in the diagram below.



Electricity Transmission

Owns and manages the high voltage electricity transmission system in England and Wales

Electricity System Operator

Ensures that Great Britain has the essential energy it needs by making sure supply meets demand every second of every day

Ventures

Operates a mix of energy assets and businesses to help accelerate the development of our clean energy future (eg, undersea electricity interconnectors with other countries and European transmission partners)



National Grid Electricity Transmission (NGET)

owns, builds and manages the electricity transmission system in England and Wales, connecting many different sources of energy safely, reliably and efficiently. It is NGET that is developing plans for the Yorkshire GREEN Project.

National Grid Electricity System Operator

(NGESO) controls the movement of electricity around the country, transporting power from generators (such as wind farms) to local distribution network operators, such as Northern Powergrid, ensuring that supply meets demand every second of every day.



National Grid Ventures sits outside the core regulated businesses, investing in technologies and partnerships that help accelerate our move to a clean energy future. This includes interconnectors - connecting the UK with countries across the North Sea, allowing trade between energy markets and efficient use of renewable energy resources.

Project development process

We undertake a phased Options Appraisal process when refining the design and routeing of new electricity transmission lines and siting new infrastructure. We have followed this process for Yorkshire GREEN and have carefully considered alternatives to the Project.

This Options Appraisal process includes the following key stages.

Strategic proposal

 We explore whether new infrastructure needs to be built. This process concludes with a Strategic Options Report, which reports on the outcome of assessment into the feasibility of different technologies and geographical connection points.

Options identification and selection

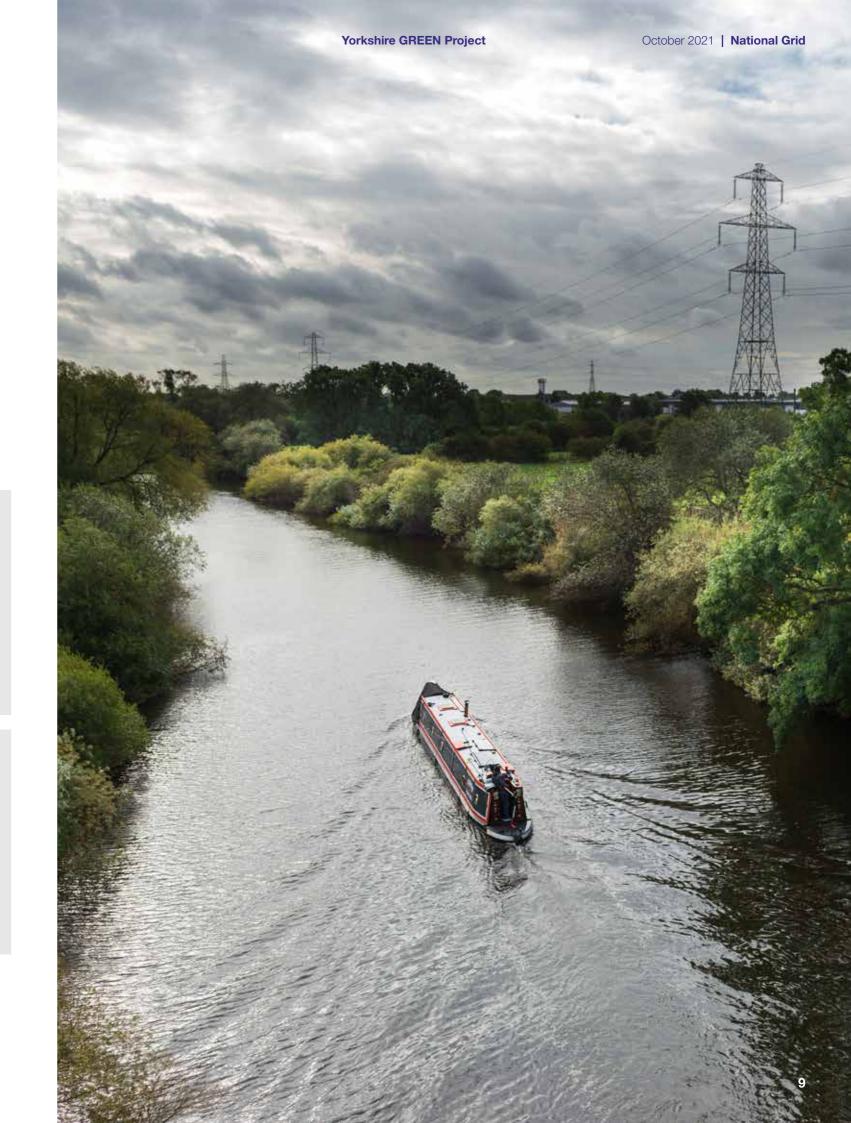
- A broad study area is established, within which potential route corridor options are identified.
 We then produce a Corridor and Preliminary Routeing and Siting Study which indicates our preferred route corridor.
- We identify graduated swathes and siting areas for infrastructure within the preferred route corridor. We asked for your feedback on this during the Yorkshire GREEN non-statutory consultation.

Assessment and land rights

- Feedback from the statutory consultation, together with information from additional environmental surveys, and engineering input, is used to refine the design of the Yorkshire GREEN Project.
- During this time detailed discussions will take place with relevant land owners in terms of use of their land. This design will be assessed in the Environmental Statement (ES), which will be submitted in support of the DCO application in winter 2022/23.

Defined proposal and statutory consultation

- We present our updated design having used feedback from the non-statutory consultation and other technical information.
- This 'defined proposal' is described in a Preliminary Environmental Information Report (PEIR), which is subject to statutory consultation. The Yorkshire GREEN Project is currently at this stage.



About Yorkshire GREEN

Yorkshire GREEN is required to upgrade and reinforce the electricity transmission system in Yorkshire and is being developed by National Grid Electricity Transmission plc. This reinforcement is needed to improve the transfer of clean energy across the country.

Power flows are set to double within the next ten years as new low carbon energy generation from onshore wind energy projects in Scotland, offshore wind projects in the North Sea and subsea cables to other countries connect to the network. Yorkshire GREEN will allow this energy to flow securely and efficiently on the network, balancing and maintaining supply and demand. It will link two existing overhead transmission lines, allowing additional energy to flow north to south. This will increase network capacity and flexibility.

Where is the Yorkshire **GREEN Project?**

Yorkshire GREEN spans an area from approximately 1.5km north-east of the village of Shipton-by-Beningbrough to the existing Monk Fryston substation, located to the east of the A1 and immediately south of the A63. A map of the area can be found on page 12 of this booklet.

What does Yorkshire GREEN involve?

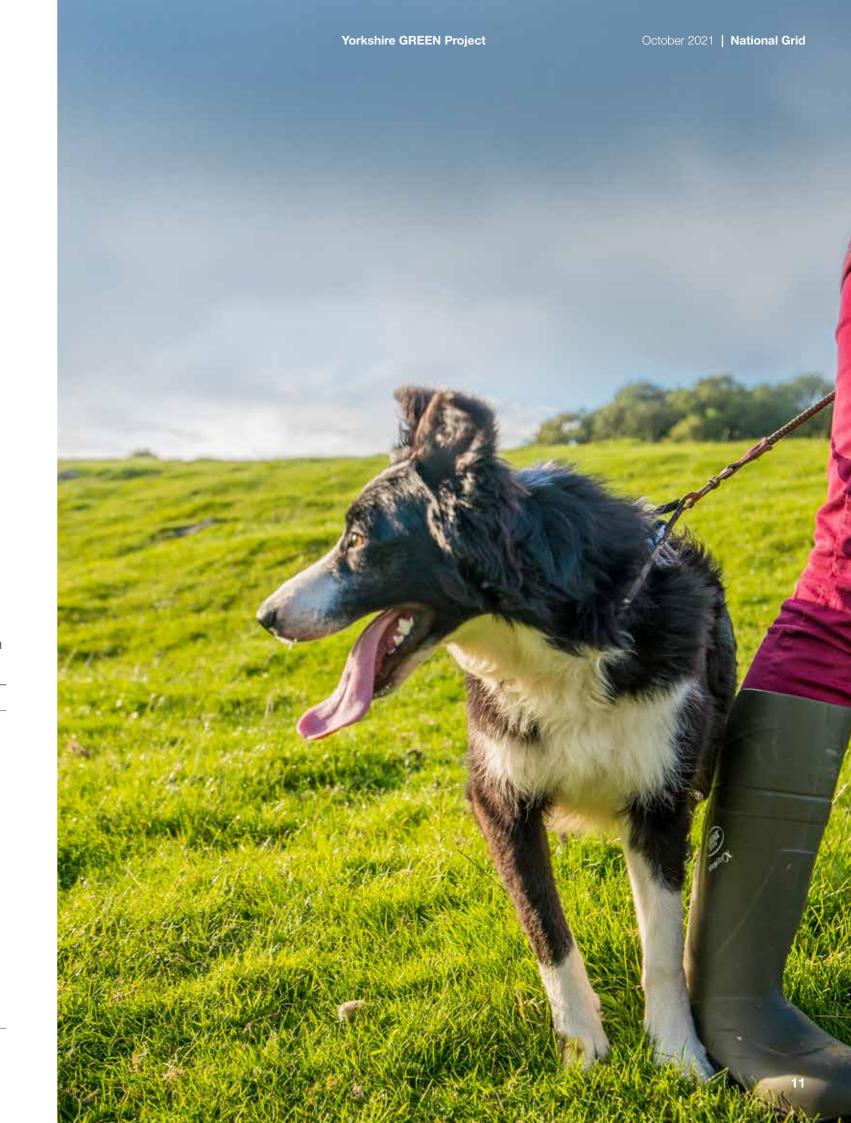
Yorkshire GREEN will involve both construction of new infrastructure and works to existing transmission infrastructure and facilities.

Proposed new infrastructure

- A new 400kV overhead line will connect into the existing overhead line with two sealing end compounds and a short section of underground cable in the north-west of York.
- This line runs south, connecting into a new substation, called Overton substation, located approximately 1km south of Shipton-by-Beningbrough. This was previously referred to as "York North substation".
- Two new 275kV overhead lines will be routed south out of Overton substation and connect into the existing 275kV overhead line.
- Two new cable sealing end compounds and short sections of underground cables located south-west of Tadcaster.
- A new substation located adjacent to and connecting into the existing substation at Monk Fryston, south-west of Monk Fryston.

Works to existing infrastructure

- A section of overhead line between the two new 275kV overhead lines will be permanently removed.
- Replacement of some pylons and realignment of the existing overhead line will take place in two locations – to the south and south-east of Moor Monkton and where the existing overhead lines enter Monk Fryston substation.
- · Replacement of overhead line conductors (wires), replacement of pylon fittings, strengthening of steelwork and works to pylon foundations.
- Minor works at the existing Osbaldwick substation.



Hambleton **District Council** Section B A19 SHIPTON XCP **A59** Section C Harrogate Poppleton District Council YORK A64 substation Osbaldwick **Section A** substation A1 (M) City of York **Council** A64 A19 Section D Tadcaster Tee Selby **District Council** Leeds City Key Council る Existing 275kV substation Section E Existing 400kV substation **M1** A1 (M) Existing 275kV overhead line (XC/XCP line to be reconductored) Existing 400kV overhead line **A63** Tee point Area for new Overton substation, 400kV and 275kV overhead line A63 and associated infrastructure Yorkshire GREEN Project sections Monk Fryston Section F substation District boundary

Our plans for statutory consultation:

Thursday 28 October to Thursday 9 December 2021

We are seeking your views on our more detailed proposals for Yorkshire GREEN. This is a statutory consultation being undertaken under the requirements of the Planning Act 2008.

Our statutory consultation starts on Thursday 28 October 2021 and closes at 11:59pm on Thursday 9 December 2021.

To help guide your feedback during this statutory consultation, we have divided the Project into six sections – three areas where we are proposing to build new infrastructure and three areas where we are proposing to replace or upgrade existing infrastructure.

Areas for new development

Section B - North west of York

Section D - Tadcaster

Section F – Monk Fryston substation

Areas with works to existing infrastructure

Section A – Osbaldwick substation

Section C - Reconductoring north of Tadcaster

Section E – Reconductoring south of Tadcaster

For each section, we have produced a series of consultation plans, which are further broken down into separate sheets (or maps). You can come and visit us at one of our public consultation events and view these in person, or you can view these online.

The following sections in this booklet set out our more detailed design for these areas, how we have refined our plans since our non-statutory consultation, what we are seeking your feedback on and where you can find out more.

All design information relating to dimensions, distances and heights of proposed infrastructure is indicative and may change as the Project design progresses.

Figure 1 – Map of the Yorkshire GREEN Project area, showing the proposed locations for our infrastructure works



North west of York area – Section B

What permanent infrastructure is being proposed around the north west of York?

New section of 400kV overhead line and cable sealing end compounds

We need to build a new section of 400kV overhead line to connect the new Overton substation into the existing 400kV Norton to Osbaldwick (2TW/YR) overhead line. This line, known as the 400kV YN overhead line, would be approximately 2.8 km in length and would comprise eight new lattice pylons. The pylons would vary between approximately 46m and 55m in height.

At the northern end of this new section of overhead line, we need to build two cable sealing end compounds and a short section of underground cables to connect together the new and existing overhead lines. The cable sealing end compounds are electrical infrastructure used as the transition point between overhead lines and underground cables. They are being referred to as 'Shipton North' and 'Shipton South'.

Shipton North and Shipton South would each be approximately 2,000m² (0.2 hectares) in size. They would both require a permanent access track and would be secured by a fence and gate around their perimeter. The cable sealing end compounds would be approximately 200m apart and we would connect them via underground cables.

To allow connection to the new 400kV overhead line, we are proposing to replace an existing pylon along this section of overhead line. The pylon would be dismantled and replaced with a new pylon, which would be sited approximately 30m to the east.

We may need to undertake works to a 2.9km section of the existing 400kV overhead line between Norton and Osbaldwick. This includes re-tensioning a portion of the 400kV overhead wires.







National Grid | October 2021 **Yorkshire GREEN Project Yorkshire GREEN Project** October 2021 | National Grid

How have we refined our proposals since the non-statutory consultation?

During non-statutory consultation, we presented a graduated swathe setting out an area (identified in blue) where the proposed 400kV overhead line could be located (as shown in Figure 2). The darker the swathe, the more preferred the location. A similar approach was taken for the siting of the cable sealing end compounds.

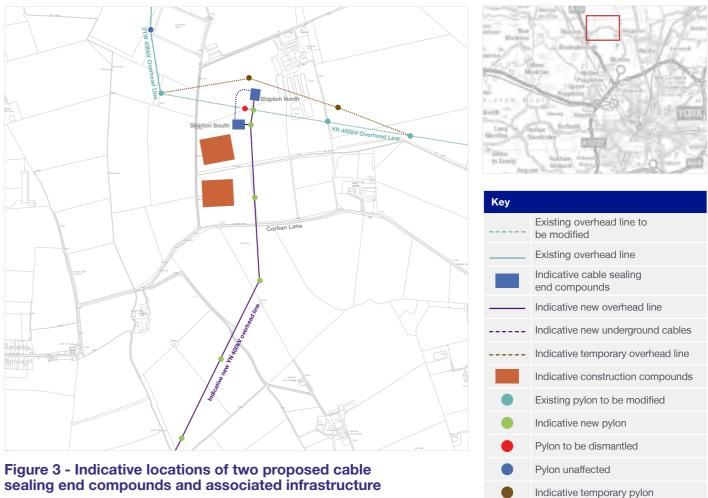
Based on the comments that we have received from consultees, the environmental consultants and the engineers, the 400kV overhead line is designed to be sited away from the villages of Shipton-by-Beningbrough and Skelton, and we have sited the Shipton North and Shipton South cable sealing end compounds in such a way as to minimise the number of new pylons, and reduce deviation of alignment between the existing 400kV line and the proposed 400kV line.



Figure 2 – Siting areas considered for two proposed cable sealing end compounds and associated infrastructure (as shown during non-statutory consultation)

This is required to comply with guidance set out in the Holford Rules, which the decision making process for siting overhead transmission lines is based on.

An overview of our updated proposals in this area is shown in Figure 3. The detailed design of the route alignment for the 400kV YN overhead line, including the siting of pylons and the locations of Shipton North and Shipton South cable sealing end compounds, is shown in our consultation plans.



sealing end compounds and associated infrastructure



New Overton 400/275kV substation

A new substation (now called 'Overton substation') would be required to convert the voltages from the two existing overhead lines – Norton to Osbaldwick (400kV) to the north and Poppleton to Monk Fryston (275kV) to the south. The new section of 400kV YN overhead line would also connect into Overton substation.

Overton substation would contain the necessary equipment to change the voltage between 400kV and 275kV, and would have the following characteristics:

- approximate footprint of 82,000m² (8.2 hectares);
- six gantries (two for each overhead line) where each overhead line connects into the substation:
- maximum height of 15m at its highest point (including the gantries);
- underground cabling within the substation to connect one of the circuits from the overhead lines into Overton substation:
- contain four Super Grid Transformers (SGT) to help convert the voltage of the overhead lines (275kV) to connect into the substation; and
- palisade electric fence to enclose the site.

The indicative location of the new Overton substation is shown in Figure 5 on page 21.

How have we refined our proposals since the non-statutory consultation?

As set out in our Corridor and Preliminary Routeing and Siting Study, we identified a number of sites for the new substation. The assessment of these sites concluded with a preferred area for the siting of Overton substation. This is located to the south of Shipton-by-Beningbrough and adjacent to the East Coast Mainline (ECML) railway line. The responses received from the non-statutory consultation generally supported the siting of Overton substation in this location.

More detailed design work for the siting of Overton substation has taken account of the comments received from the non-statutory consultation and ensured that the siting of substation infrastructure is more than 800m from the nearest residential properties. The design has also been updated to ensure that access to the substation is on a relatively straight stretch of Overton Road, close to the A19 junction, minimising the need for construction traffic to travel through local villages. The design in terms of the access arrangements will continue to develop throughout the consultation. We recognise that Overton Road is a popular route for cyclists and will take into account any comments received from them.

The proposed Overton substation site benefits from existing landscaping, which along with the ECML railway embankment will help screen some views of the substation. Additional landscape screening will also be planted, and we have shown indicative locations for this planting in our photomontages and flythrough video. We are seeking your views on these proposals.

New sections of 275kV overhead lines

Two new sections of 275kV overhead line are required. The location of these overhead lines are shown in our consultation plans for this section. The new 275kV overhead lines include:

a 275kV overhead line to the west This overhead line would be approximately 2.1km
long. It would run from Overton substation, crossing
the East Coast Main Line railway and tracking
west past Overton Wood to connect to the existing
275kV overhead line approximately 300m south
of the River Ouse. We would need to build six
new lattice pylons.

 a 275kV overhead line to the east - This line would be approximately 1.5km long. It would run south from Overton substation, parallel to the east of the ECM railway, and then connect to the existing 275kV overhead line approximately 500m to the west of Skelton. We would need to build four new lattice pylons.

To enable the construction of two new 275kV overhead lines, we will also need to modify existing infrastructure. This would include the removal and re-alignment of some pylons on the existing 275kV Poppleton to Monk Fryston (XC/XCP) overhead line.

Key

Potential alignment of new

Potential alignment of the two new 275kV overhead lines

400kV overhead line

Preliminary location of

infrastructure, including the York North substation and cable sealing end compounds Existing properties

Existing 400kV overhead line

Existing 275kV overhead line Partial removal of the existing 275kV Poppleton to Monk Fryston overhead line District boundary

North west of York corridor

boundary

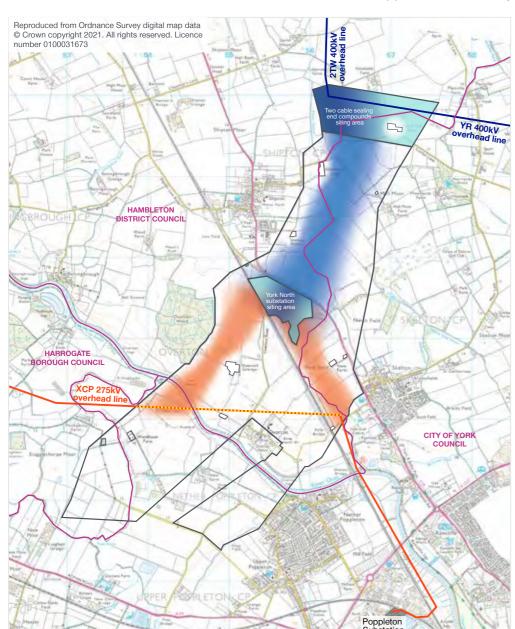


Figure 4 - Graduated swathe where infrastructure in north west of York would be sited (as shown during non-statutory consultation)

How have we refined our proposals since the non-statutory consultation?

During non-statutory consultation, we presented two options for the 275kV overhead line. Option 1 identified a graduated swathe in orange for the new 275kV overhead line, with the darker colour representing the more preferred location. A similar approach was presented for Option 2. We asked for specific feedback on Option 1 and Option 2. Based on the comments that we received from consultees, the environmental consultants and the engineers, we decided to progress with Option 1 which is shown in Figure 4.

Option 1 was the more preferred option in the non-statutory consultation, and is preferred for the following reasons:

- it would allow us to remove up to 2.5km of the existing 275kV Poppleton to Monk Fryston (XCP) overhead line, reducing the 'wirescape' in this are.
- it would allow us to remove of a greater number of pylons, compared to Option 2.
- trees and shrubs along the railway would soften the view of the overhead line from different directions.
- Overton Wood would provide some screening of the proposed 275kV overhead line from the west and would reduce the impact of the new line on the view from the south-east and east.
- it would provide a straighter alignment into Overton substation (i.e. this route would be more compliant with the Holford Rules guidance).

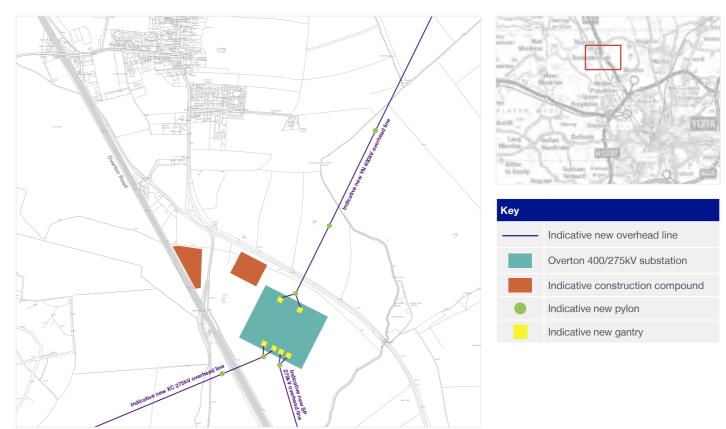


Figure 5 - Indicative location of the new Overton substation and associated infrastructure

What changes are we proposing to existing infrastructure in this area?





275kV Poppleton to Monk Fryston (XC/XCP) overhead line route

We would carry out work on a 5km stretch of this overhead line between Moor Monkton and Skelton, which would involve the realignment of some pylons and the permanent removal of others. This would include the following works:

- permanently removing 2.35km of overhead line and six pylons to the west of Skelton.
- replacing four pylons south west of the River Ouse.
- removing five pylons to the south-east of Moor Monkton and replacing them with four pylons approximately 230m further to the south-east of Moor Monkton, creating a straighter alignment in this area.

How will we build the new infrastructure in this area?

To help build the new infrastructure, we would need to build four temporary construction compounds. The compounds would provide space to store construction equipment, along with space for car parking, offices and welfare areas for construction staff.

The proposed compounds are as follows:

Two compounds to the north of Corban Lane (shown in Figure 3)

- We would manage the construction of the 400kV YN overhead line and the cable sealing end compounds, along with works to the existing 400kV Norton to Osbaldwick overhead line, from these compounds.
- Both compounds would be located to the north of Corban Lane and east of the access road to Newlands Farm (as shown in Figure 3).
- Each compound would be approximately 14,300m² (1.4 hectares) in size.

The compounds would be installed in 2024 and maintained for the duration of the construction works up to 2028. At this point, the temporary compounds would be removed and the land would be cleared and reinstated.

Two compounds to the north-west of Overton substation (shown in Figure 5)

- We would manage the construction of the new 400kV and the new 275kV overhead lines and new Overton substation from these compounds.
- One compound would be located to the west of Overton Road and another to the east of Overton Road (as shown in Figure 5).
- Each compound would be approximately 14,300m² (1.4 hectares) in size.

Your feedback

We would like to hear your views on the proposed location of the new cable sealing end compounds, the new 400kV overhead line, Overton substation, the new 275kV overhead lines and the realignment of the XC/XCP overhead line south-east of Moor Monkton. We welcome any comments on any specific locations, including access points, mitigation or issues that we should consider when refining our design in this area (see questions 5-14 in our feedback questionnaire).



Tadcaster area - Section D

To manage the power flows on the existing 275kV Poppleton to Monk Fryston (XC/XCP) overhead line, we need to create a second connection between it and the existing Monk Fryston to Knaresborough and Poppleton to Knaresborough (both XD/PHG) overhead line.

The Tadcaster area is presented as 'Section D' within our consultation plans. The plans provide a detailed overview of the locations for this infrastructure (across two sheets). Our proposals include building new infrastructure and changes to the existing infrastructure to help manage power flows.

What permanent infrastructure is proposed around the Tadcaster area?

New 275kV cable sealing end compounds

We need to build two new cable sealing end compounds to manage power flows on the existing XC/XCP overhead line, which currently connects to the existing 275kV Tadcaster Tee to Knaresborough (XD/PHG) overhead line in this area. The two cable sealing end compounds (named Tadcaster Tee East and Tadcaster Tee West), each with a footprint of approximately 2,000m² (0.2 hectares), would be connected by a short section (approximately 350m) of underground cable. We would install gantries in each location, which would be approximately 15m high.

We would also need to remove an existing pylon, which would be replaced with a new pylon approximately 40m to the south-east to allow a connection to the new Tadcaster Tee West cable sealing end compound.







How have our proposals been refined since the non-statutory consultation?

During non-statutory consultation, we asked for your feedback on the graduated siting area which showed our preferred location for the underground cabling and cable sealing end compounds (as shown in Figure 6). The majority of people who responded to this section in the non-statutory consultation were supportive of the proposed location identified. We have now included more detail of the infrastructure proposed around Tadcaster. This is shown in Figure 7. These locations are our preferred locations because:

- there would be no removal or direct impact on existing woodland;
- they would be located in an area where the surrounding landscape, the existing vegetation and local topography help screen the compounds;
- they are located in close proximity to the A64, providing good access, avoiding nearby built up areas; and
- increasing the distance between the cable sealing end compounds would result in significantly greater costs, and the proposed locations minimise the amount of underground cable between the compound areas. The shorter lengths of underground cabling would also limit the loss of existing vegetation and potential impact on archaeology.

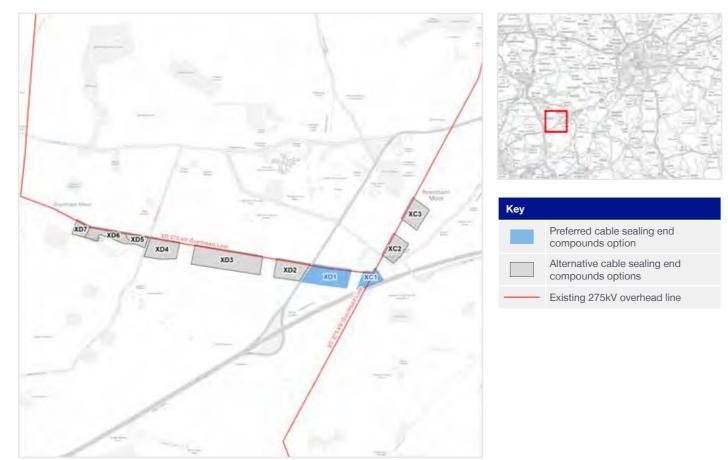


Figure 6 – Siting areas considered for the proposed new cable sealing end compounds in the Tadcaster area (as shown during non-statutory consultation)





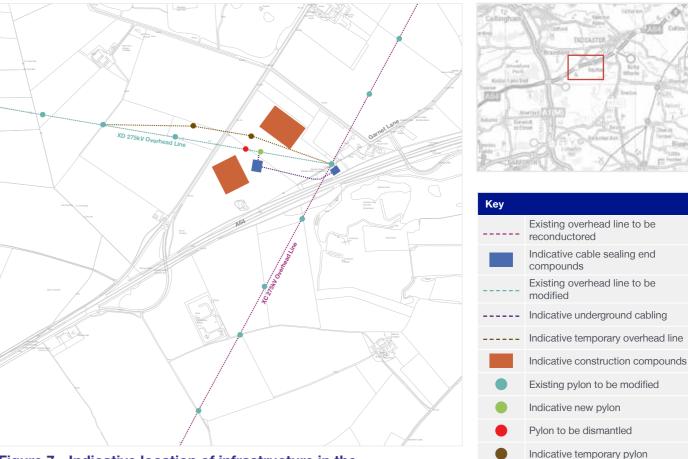


Figure 7 - Indicative location of infrastructure in the Tadcaster area

What changes are we proposing to existing infrastructure in this area?



To help manage the power flows from the new infrastructure, we would also need to undertake works to the existing 275kV Tadcaster Tee to Knaresborough (XD/PHG) overhead line route.



This would involve:

- potential works, such as re-tensioning of the conductor on the overhead line; and
- potential improvement works to pylons along the 275kV Poppleton to Monk Fryston (XC) overhead line, such as steelwork and foundation strengthening works, replacement of overhead wires, new fittings and new steelwork.

How will we build the new infrastructure in this area?

To help build the new infrastructure in the Tadcaster area, we would need to build two temporary construction compounds. The two compounds would be located between the A64 and A659, one of which will have an approximate footprint of 17,000m² (1.7 hectares) and the other, a footprint of 14,000m² (1.4 hectares).

The compounds would provide space to store construction equipment, along with space for car parking, offices and welfare areas for construction staff. The compounds would be installed in 2024 for the duration of the construction works up to 2028. The temporary compounds would be removed and the land would be cleared and reinstated once our work is complete.

Your feedback

We would like to hear your views on the proposed location of the new cable sealing end compounds, construction accesses, pylons and underground cables.

We welcome any comments on any specific locations or issues that you feel we should consider when refining our plans in this area (see questions 15 and 16 in our feedback questionnaire).





Monk Fryston substation area - Section F

To manage the power flows on the existing 275kV Poppleton to Monk Fryston (XC/XCP) overhead line, we need to create a second substation at Monk Fryston. This new substation area is presented as 'Section F' within our consultation plans. The plans consist of proposed new infrastructure and changes to existing infrastructure.

What permanent infrastructure is being proposed in this area?

400/275kV Monk Fryston substation (new)

To increase and strengthen network capacity to accommodate the increasing energy flows we would need to build a new 400/275kV substation. This new substation would be located adjacent to (and connecting into) the existing Monk Fryston substation, which otherwise would be unable to accommodate the additional energy flowing from the uprated overhead lines.



- have a footprint of approximately 80,000m² (8 hectares):
- have a maximum height of 15m at its highest point (including the gantries), although the heights of the substation and equipment are yet to be finalised;
- contain four Super Grid Transformers (SGT) to help convert the voltage of the overhead lines (275kV) to connect into the substation (400kV); and
- include approximately 600m of underground cables to connect the overhead line circuits to the new substation.







What changes are we proposing to existing infrastructure in this area?





To help manage the power flows into the new substation at Monk Fryston, we are proposing the following changes to existing infrastructure in this area:

- reconfiguring the existing 275kV Poppleton to Monk Fryston (XC) overhead line to connect into the new substation, including the installation of new spans of overhead line where needed;
- removing and installing new pylons, resulting in one additional pylon in this area, along with two new gantries to allow the overhead line to connect to the new substation; and
- reconfiguring a short section of the existing 400kV Eggborough to Monk Fryston overhead line to connect into the new substation, along with dismantling approximately 350m of existing overhead line.

How will we build the new infrastructure in this area?

To help build the new Monk Fryston substation and to undertake works to existing infrastructure, we would need to build two temporary construction compounds. These would be located east and west of Rawfields Lane, and both will have an approximate footprint of 14,000m² (1.4 hectares).

Works to construct the new substation and changes to the existing overhead lines would be managed from these compounds which will store all of the necessary equipment and materials.

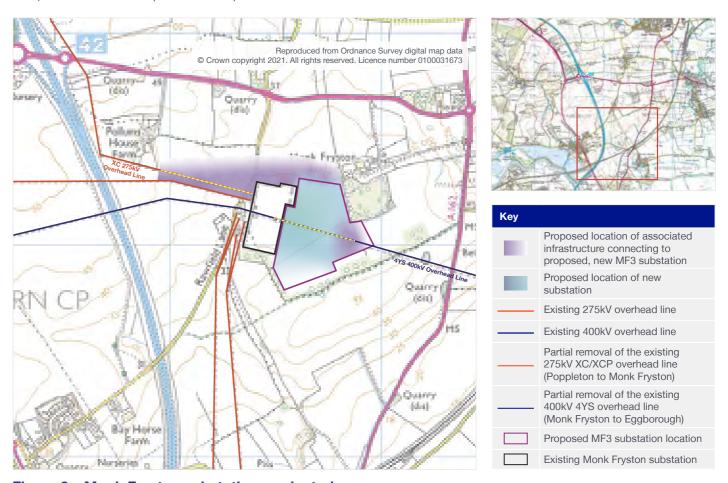


Figure 8 – Monk Fryston substation graduated siting area for a proposed new substation and associated infrastructure (presented at non-statutory consultation)



Figure 9 - Indicative location of the new Monk Fryston substation and associated infrastructure



Key	
	Existing overhead line to be reconductored
	Existing overhead line to be dismantled
	Existing overhead line (not affected)
	Indicative new overhead line
	Indicative temporary overhead line
	Indicative construction compounds
	Existing pylon to be modified
	Indicative new pylon
	Pylon to be dismantled
	Pylon unaffected
	Indicative temporary pylon

How have we refined our proposals since the non-statutory consultation?

During non-statutory consultation we presented our preferred Substation Siting Area, and indicated the preliminary location of this within a graduated swathe map (as shown in Figure 8). This site was preferred from a design perspective, as it provides the least complex technical solution and makes most use of the existing infrastructure in the area. This reduces impacts on land take, is the more preferred option in terms of cost and minimises potential impacts on the environment.

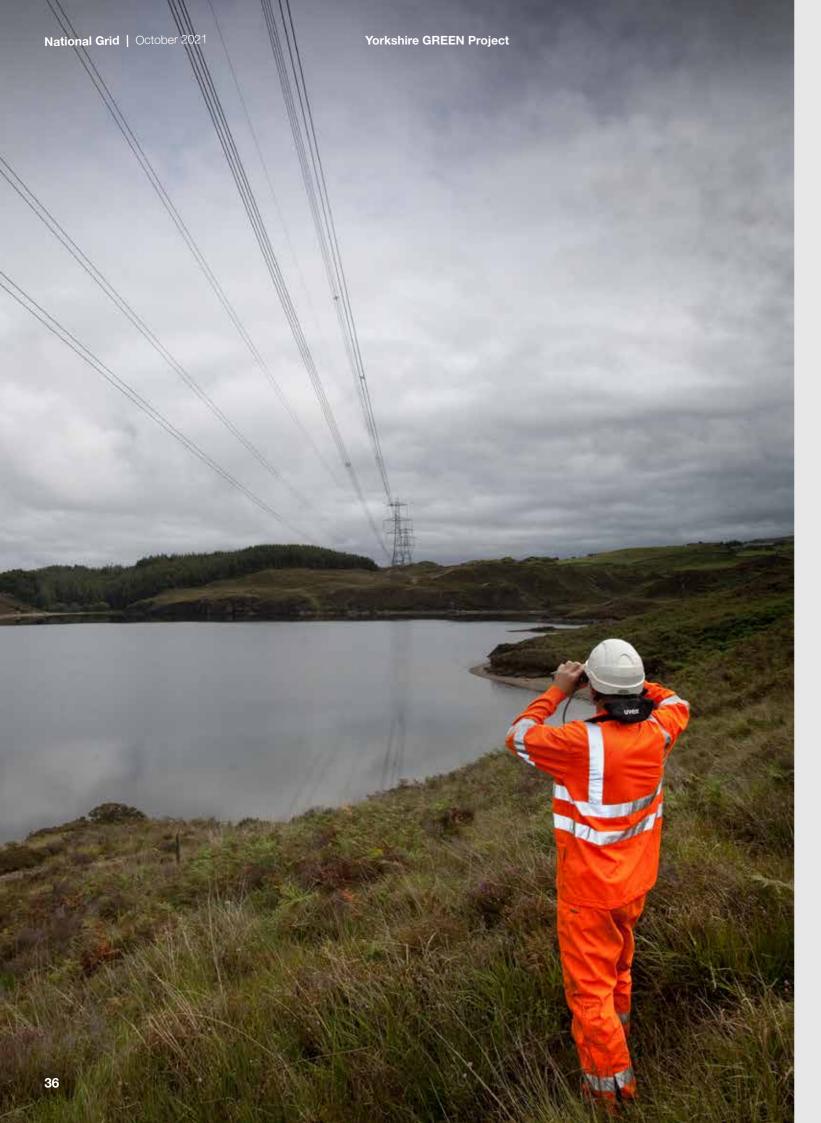
Since our consultation, we have been refining our proposals for the siting of the new Monk Fryston substation (as shown in Figure 9). The new substation has been set back from Monk Fryston Lodge to minimise impacts in terms of visual amenity and noise. This has been achieved by 'wrapping' the new substation around the existing substation. This design has also reduced the number of pylons required to connect into the substation. Landscape screening has been identified to reduce visual impacts when viewed from the south, east and west. We would welcome views during this consultation on the type of screening proposed.



During this consultation, we are seeking your views on the proposed location of the new Monk Fryston substation. We would welcome comments on any specific locations (including access arrangements and mitigation) or issues that are important to you as we refine our design in this area (see questions 17 and 18 in our feedback questionnaire).







Works to existing infrastructure -Section A, C and E

We need to do additional work in some areas as part of the Yorkshire GREEN Project to ensure that the network can manage the additional energy flows. These areas are presented as Sections A, C and E within our consultation plans, which provide a detailed overview of the existing infrastructure that will be improved or replaced in these areas. Each section has been split into sheets (or maps) with 17 sheets in total across these geographical areas.

Osbaldwick substation: Section A

We need to install additional equipment at the Osbaldwick substation, including an isolator (a safety device which disconnects a circuit from electrical supply) and a circuit breaker (a switch which manages and protects power flow). We would also need to build and dismantle an existing gantry, build a new gantry and section of cable at this substation. All construction works, including the construction of any temporary compounds, would take place within the existing operational land at Osbaldwick substation.

Reconductoring works to the north (Section C) and south (Section E) of Tadcaster

We need to carry out upgrading works to the existing 275kV Poppleton to Monk Fryston XC/XCP overhead line route to accommodate the new sections of overhead lines, as set out in the previous sections. Works along this route would involve replacing the conductors (overhead wires) and fittings. Here we are increasing the number of conductors from single to twin, doubling the number of wires on each arm of the pylon to allow the overhead line to transport more power.

We also need to undertake improvement works to approximately 93 pylons along the overhead line between the new Overton substation and Monk Fryston. These improvement works involve steelwork replacement or strengthening, and replacement or modification of pylon crossarms. Works will include the replacement of insulators and fittings along with strengthening of foundations along the route.

How will we build the new infrastructure in this area?

Improvement works in Sections A, C and E would be managed from the temporary construction compounds we're building in the north west of York, Tadcaster and Monk Fryston. To maintain the flow of electricity in the network while we carry out these works, we would need to temporarily divert short sections of overhead lines and install temporary pylons or structures.

Your feedback

During this consultation, we are welcoming your feedback on the specific locations and impacts that are important to you as we refine our proposals for Yorkshire GREEN. We welcome any comments you may have on our proposals for works to the existing Osbaldwick substation and reconductoring works to the north and south of Tadcaster (see questions 19 and 20 in our feedback questionnaire), along with any particular locations or features of interest to you.

Construction timeline

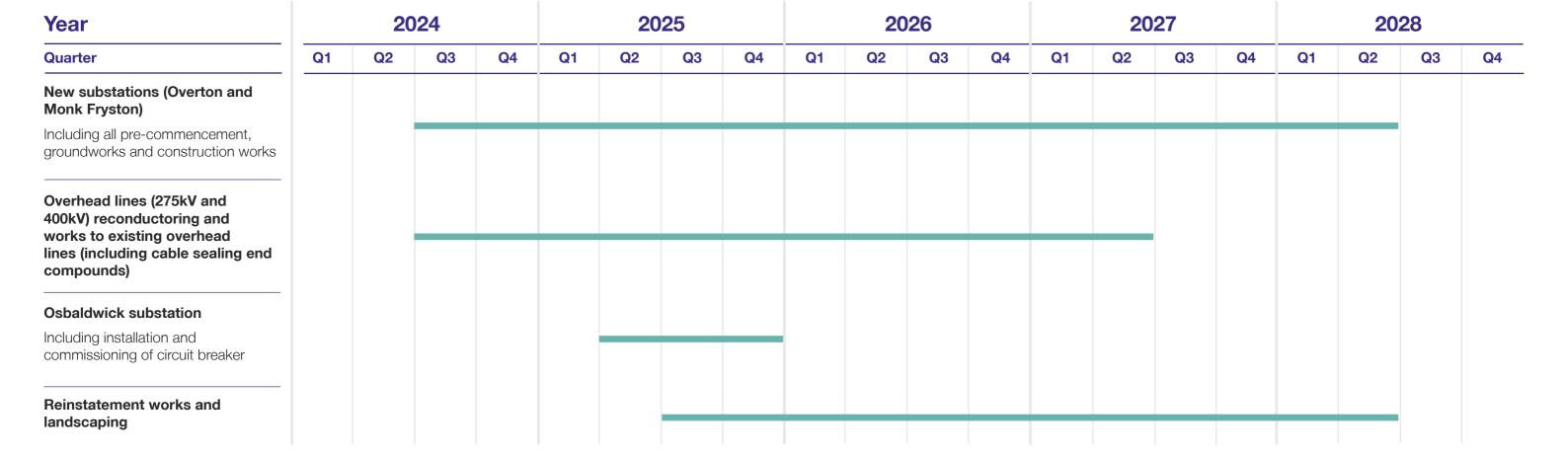
We expect to submit our DCO application in winter 2022/2023. Should consent be granted by the Secretary of State for Business, Energy and Industrial Strategy (BEIS) in early 2024, we would start pre-commencement works in late 2024.

Pre-commencement works would involve setting up construction compounds, constructing bellmouths (an access point from the public highway for construction purposes) and other access works.

We would start the main construction programme in early 2025. The new infrastructure would be operational in 2027, delivering low carbon energy to homes and businesses across Yorkshire and beyond.

During 2028, we would carry out any final works and reinstatement and by the end of 2028, all construction works associated with Yorkshire GREEN would be fully complete.

This construction programme is indicative and is subject to change. You can find a more detailed breakdown of construction activities in **Chapter 3: Description of the Project** of the Preliminary Environmental Information Report.



How will we minimise and manage impacts during construction?

As part of our final application, we are proposing a series of mitigation measures that are embedded in the design of Yorkshire GREEN.

We will be publishing an Environmental Statement which reports the outcome of the Environmental Impact Assessment (EIA) process. This will be accompanied by a suite of outline management plans, schemes and strategies, which describe the mitigation measures that will be put in place to manage the impacts from construction of the Project.

A final list of outline management plans will be submitted as part of the DCO application. We anticipate that the following plans will be submitted:

- Construction Environmental Management Plan (CEMP), setting out construction methods and how these methods would minimise the effects on the environment and local communities;
- Construction Traffic Management Plan (CTMP), setting out how we would manage construction traffic during the construction of the Project;
- Public Rights of Way (PRoW) Management Plan, setting out how we would manage any effects on PRoW during the construction phase of the Project;
- Landscape and Biodiversity Strategy, setting out how screening would help reduce the landscape and visual effects of the Project and promote habitat improvements; and
- Archaeological Written Scheme of Investigation to minimise effects of construction works on areas of unknown archaeology.

Traffic

In developing the Yorkshire GREEN Project, we are seeking to reduce the effect of our work on the local community by considering construction traffic. A preliminary assessment of the likely significant effects of the Project with respect to traffic and transport is presented in **Chapter 12: Traffic and Transport** of the Preliminary Environmental Information Report (PEIR).

Our initial studies into these impacts have been assessed across a proposed transport study area. This study area comprises approximately 50 separate roads across the local highway authority areas of Leeds City Council, City of York Council and North Yorkshire County Council. Our preliminary studies have been undertaken to assess potential growth in traffic numbers across this network, with traffic numbers expected to peak during the initial construction period for the Project (in 2025 and 2026).



Access

During the construction phase of the Project, we will need to build temporary accesses onto and from the public highway network. We will also need to build permanent accesses for the operation and maintenance phase to allow routine maintenance and inspection of the new overhead lines, cable sealing end compounds and substations.

The current design of Yorkshire GREEN has identified approximately 112 accesses within the Project boundary. This includes options to either utilise existing accesses, such as existing tracks or roads, or build new accesses, such as on the edge of agricultural fields, which could result in the removal of sections of hedgerow or other vegetation.

The current access design could be reduced as part of our final design following additional assessments that we will undertake. We will discuss the final access locations and arrangements with each local highway authority and the relevant landowners, with specific measures agreed before we start construction.



What measures are we proposing to reduce the impact on the local road network?

We will deploy a range of temporary traffic management measures throughout the construction period including at proposed access locations, around proposed construction compounds and substations, and on roads being used for the delivery of materials to the construction areas.

These measures would need to be agreed with the relevant highways authorities and could include:

- traffic signage, providing sufficient notice of any temporary road closures/diversions or speed restrictions in place;
- access route signage providing sufficient warning for other road users of the likely presence of construction vehicles and direction routeing information for these vehicles; and
- access road signage, providing construction vehicles with information on distances to construction sites and areas where members of the public may be, such as PRoW.

You can find more information regarding these measures and the findings of our preliminary surveys in **Appendix 12A: Preliminary Construction Traffic Management Plan.** This plan also includes a proposed access strategy, where we list the locations of proposed temporary construction accesses.

Public Rights of Way

Our initial surveys have assessed which Public Rights of Way (PRoW) could potentially be affected by Yorkshire GREEN. Within our study area, we have identified 28 PRoW that could be temporarily affected, which includes a mix of footpaths, bridleways and restricted byways.

These PRoW would be affected on a temporary basis and no permanent closures or diversions are anticipated. In order to minimise impacts during construction, we are considering a number of management solutions, including:

- temporary re-routeing of PRoW during construction of Yorkshire GREEN;
- provision of signage and other information alerting the public to construction works;
- management plans for crossing points on PRoW; and
- management plans for the Project's access routes, and where these routes may be shared with other road users.

Specific measures to reduce impacts on PRoW would be applied at each location where relevant. We would also inspect each affected PRoW before we start construction and after construction is complete. This will enable us to reinstate each PRoW to its previous condition (or better) once we have completed construction.

Your feedback

During this consultation, we are welcoming your feedback on the specific locations and impacts that are important to you. This includes the location of new infrastructure and works to existing infrastructure for the Project (across sections A-F). To provide your feedback, we recommend that you:

- view the relevant consultation plans for your areas of interest – these plans identify the accesses required to build the Project, along with the affected PRoW; and
- read the relevant chapter of the Preliminary Environmental Information Report (PEIR) (Chapter 12: Traffic and Transport) and PEIR non-technical summary (NTS) which outline the proposed methods to reduce the effects of the Project.

You can provide your feedback by answering the relevant questions in our feedback questionnaire, which has been divided into geographical sections, and let us know what you think in the text boxes provided.



Landscape and Visual Amenity

When developing the Yorkshire GREEN Project, we are looking at ways to reduce adverse effects on the local community by having regard to the landscape and people who live, work and visit the area. A preliminary assessment of the likely significant effects of Yorkshire GREEN with respect to landscape and visual amenity is presented in **Chapter 6: Landscape and Visual Amenity** of the PEIR.

To gather initial information on the landscape and visual impacts, we have undertaken a landscape and visual impact assessment across three study areas where new infrastructure is proposed: north west of York, Tadcaster and Monk Fryston substation. Each study area extends to a three-kilometre radius in all directions, which captures where all the proposed new infrastructure would be located.

To help visualise what new areas of infrastructure could look like we have produced a number of photomontages from four different viewpoints (selected out of the 29 viewpoints identified in **Chapter 6: Landscape and Visual Amenity** of the PEIR). Each viewpoint has a series of images showing the existing view (in 2021), the indicative view in year one (once Yorkshire GREEN is operational), and the indicative view in year 15 (including indicative mitigation and landscape planting).

The four locations are as follows:

Viewpoint 14: National Cycle Network 65, Overton Road near Overton – showing Overton substation and associated infrastructure.

Viewpoint 15: National Cycle Network 65, Overton Road, near junction with A19 – showing the Overton substation and associated infrastructure.

Viewpoint 16: Public footpath near western edge of Shipton-by-Beningbrough – showing the temporary construction compounds at this location.

Viewpoint 23: Public footpath south of the existing Monk Fryston substation – showing the 275/400kV substation and associated infrastructure.

All these visualisations are available to view on our website or in person at our consultation events (as listed on page 54 of this booklet).

You can also watch our fly-over video, which provides an overview of the new and existing infrastructure proposed for Yorkshire GREEN. This video helps to visualise what our early stage design could look like and is subject to change following future developments to the design.





What measures are you proposing to reduce the landscape and visual impact of the Project?

We are proposing a range of measures to help reduce the landscape and visual impact of the Project. We have carefully designed the Project in the following ways to reduce these impacts:

- maximising the use of existing access points where safe to do so, and minimising the loss of hedgerows and trees where new access points are unavoidable;
- where possible, siting substations, cable sealing end compounds and construction compounds away from residential areas and in areas where existing screening from vegetation and/or topography can be used, such as trees, hedgerows and embankments can be used;
- removing 2.35km of overhead line (and the associated six pylons) to the west of Skipton;

- designing the overhead lines to utilise the shortest, most direct route, and minimising sharp angles and maximising span lengths to reduce the number of pylons required; and
- considering areas for new planting and reinforcement of existing vegetation, including hedgerows to help screen and soften the impacts of the new infrastructure.

An Outline Landscape Strategy has been developed to outline potential additional measures that we would take to reduce the impact of the Project. This will be developed further and finalised as part of our DCO application.

Your feedback

During this consultation, we are welcoming your feedback on the specific locations for landscape planting or other screening methods to reduce the visual impacts of Yorkshire GREEN. This includes any comments you may have on aspects of the Project design, and any further mitigation that you would like us to consider.

Environmental Impact Assessment (EIA)

EIA is a process to identify potential effects a proposed development may have on the environment, people and local communities.

This process involves consultation with affected communities and other stakeholders to ensure that the EIA has identified the relevant effects of the Project. These effects can be positive or negative. Through the design evolution process, we are working to reduce the negative effects of the Project and provide enhancements where possible.

What are we reporting at this stage?

For Yorkshire GREEN, we have invited stakeholders to provide feedback through statutory and non-statutory consultation. The preliminary EIA findings for Yorkshire GREEN are reported within the Preliminary Environmental Information Report (PEIR).

The PEIR has been prepared for the purposes of statutory consultation. It helps members of the public, consultation bodies and other stakeholders to develop an informed view of the likely significant effects of the Project, as identified at this stage, and comment on particular areas of interest.

This consultation is taking place before we finalise our design as part of our application for development consent. Alongside this application, we will provide a full Environmental Statement, which will report the outcome of the EIA process.

How can I access this information?

The full suite of PEIR documentation can be found on our website. To allow you to read information on impacts and topic areas that are important to you, we have divided the PEIR into the following topic areas:

Chapter 1: Introduction

Chapter 2: Project need and alternatives

Chapter 3: Description of the Project

Chapter 4: Approach to preparing the PEIR

Chapter 5: Legislative and policy overview

Chapter 6: Landscape and Visual Impact Assessment

Chapter 7: Historic Environment

Chapter 8: Biodiversity

Chapter 9: Hydrology

Chapter 10: Geology and Hydrogeology

Chapter 11: Agriculture and Soils

Chapter 12: Traffic and Transport

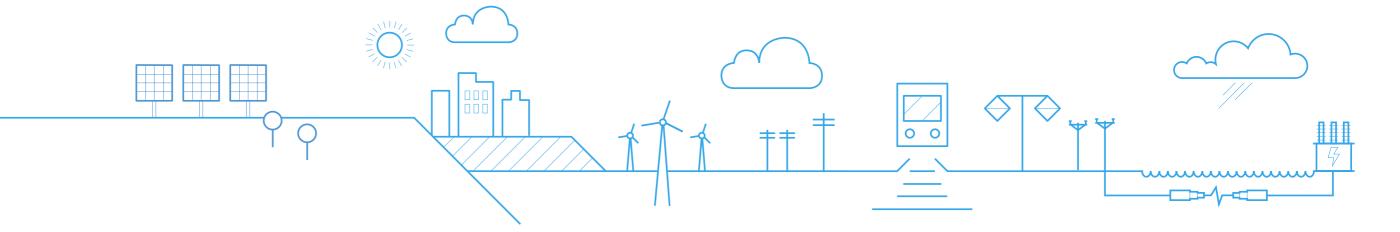
Chapter 13: Air Quality

Chapter 14: Noise and Vibration

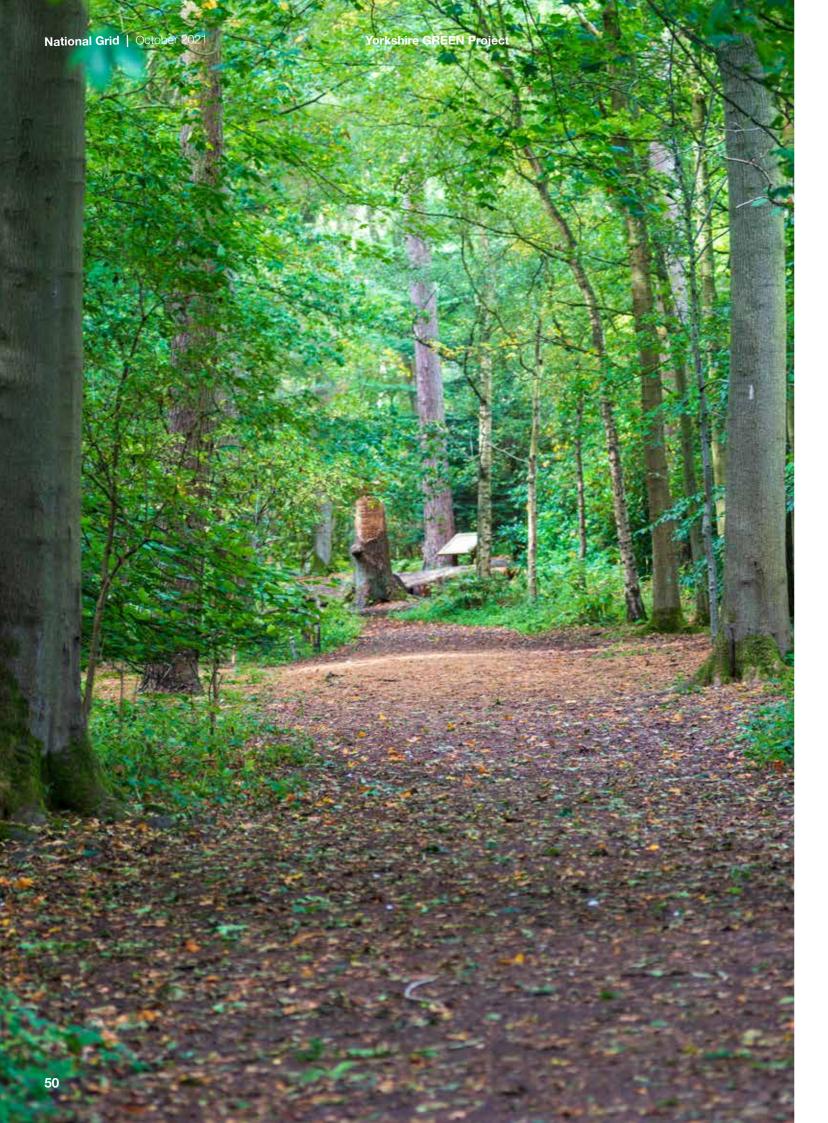
Chapter 15: Health and Wellbeing

Chapter 16: Socio-economics

The PEIR contains a series of appendices and technical plans, which can also be accessed on our website or viewed in person at one of our consultation events.







Consultation and next steps

Our commitment to you

As we upgrade the electricity transmission network and develop proposals to allow more energy to flow on our network, we are committed to working with a wide range of stakeholders. Listening to the views of communities in areas where the network needs to be upgraded gives us valuable feedback and insight on how we might be able to minimise impacts.

Delivering clean energy while ensuring everyone benefits and no-one is left behind is also important to us. We work closely with local communities to make sure we minimise construction impacts as much as we can. We also support community initiatives in areas where we are working to deliver social, economic and/or environmental benefits.

We encourage you to view our updated design for Yorkshire GREEN and invite you to comment on how our Project might affect you or your community. Your views are important to us and will help shape our plans as our Project develops further.

Our approach to public consultation

Certain types of energy infrastructure fall within the categories of Nationally Significant Infrastructure Projects (NSIPs), which require a Development Consent Order (DCO) under the Planning Act 2008.

For National Grid, NSIPs include new overhead lines and pipelines over a certain voltage and length. Applications for DCOs are submitted to and examined by the Planning Inspectorate and are determined by the Secretary of State for Business, Energy and Industrial Strategy (BEIS), not by a local planning authority. The Yorkshire GREEN Project falls into this category.

We held our first round of public consultation in March and April 2021. This helped us identify potential areas of concern, allowed us to consider and respond to feedback, and the consultation responses received informed the refinement of the Project design. A Non-statutory Consultation Response Report has been prepared which summarises the consultation comments we received at the non-statutory consultation, and provides a response to the comments.

We are now presenting our more detailed proposals during this statutory consultation. Our design has been refined following your feedback from our non-statutory consultation, together with information from further environmental and technical work. This is your opportunity to have your say before we submit our DCO application to the Planning Inspectorate in winter 2022/23.

What we would like your feedback on to help develop the Project

During our statutory consultation, we would like your feedback on our more developed design for Yorkshire GREEN. In particular, we would like to hear your views on the detailed location of new infrastructure in the north west of York, Tadcaster and Monk Fryston (sections B, D and F); we would also seek your view on ways in which we can further reduce impacts from the Project through things such as vegetation planting or other screening. We would also like to hear your views on the areas identified for the upgrading of the existing infrastructure (sections A, C and E).

To help inform you of our detailed design, and assist you in providing feedback, we have produced a series of consultation plans showing each section in more detail. Each section is broken down into a number of different sheets, which cover the geographical extent of each section, allowing you to identify areas of interest to you.



Our consultation documents

We have produced the following documents for the purposes of this statutory consultation:

- Preliminary Environmental Information Report, including all chapters, figures and appendices;
- A non-technical summary of the PEIR; and
- Consultation plans for sections A-F. We have also produced a Guide to interacting with our consultation plans.

We have also produced the following materials to help you learn more about the Project and provide feedback.

Consultation material	Description
Non-statutory Consultation Response Report	A document presenting the results of the non- statutory consultation in March and April 2021. We have analysed all feedback received during this consultation and have provided a response to each comment.
'You said, we did' summary of the responses	A document summarising the key themes from the non-statutory consultation and what we have done in response to this feedback after consultation.
Interactive map	A map which allows you to interact with and identify where you are in relation to our Project.
Flyover video	A video providing an explanation of the Project and an early-stage idea of what the Project could look like once built.
Photomontages	Visualisations prepared for the Project from key surrounding viewpoints.
You can access this information on our website nationalgrid.com/yorkshire-green . However, should you have limited access to our website, you can request a hard copy of some of our documents using the contact details provided on page 55 of this booklet.	You may also find our other Project background documents useful, including the Corridor and Preliminary Routeing and Siting Study, the Strategic Proposal and the Project Needs Case for Yorkshire GREEN. These documents provide background information on our Project and how it has developed up until this stage. These documents are available on the Project website.

How to have your say

Our statutory consultation runs from **Thursday 28 October to 11:59pm on Thursday 9 December**.

We are holding face-to-face events at a number of venues. At these events we will have materials setting out our design to date, and members of the Project team will be on hand to answer any questions you may have. We will have a range of materials (also available on our website) for you to view and take away from our events. We will also have a full copy of the PEIR to view at these events, although you will not be able to take a copy of this away.

We will put in place a range of measures in line with the current government health guidance around COVID-19 to ensure our events are safe and accessible to all. If you have any questions about our events, please get in touch using the details below.

Our face-to-face consultation events will take place as indicated below:

Consultation event	Date	Time
The Riley-Smith Hall, 28 Westgate, Tadcaster, North Yorkshire LS24 9AB	Monday 1 November	3:00pm - 7:30pm
Old Girls' School Community Centre, 18 Kirkgate, Sherburn in Elmet, Leeds LS25 6BL	Wednesday 3 November	3:00pm - 7:30pm
Skelton Village Hall, 1 Brecksfield, Skelton, York YO30 1YB	Friday 12 November	3:00pm - 7:30pm
Monk Fryston and Hillam Community Centre, Old Vicarage Lane, Monk Fryston, Leeds LS25 5EA	Saturday 13 November	12:00pm - 4:30pm

To ensure the consultation is inclusive and open to all, we are also holding a series of online question and answer (Q&A) sessions to provide you with the opportunity to learn about our proposals from members of the Project team and ask them questions.

The sessions will be held through an accessible online platform, with the option for attendees to dial in via phone. A step-by-step guide for how to access and sign up for our community webinars is available on our consultation website: nationalgrid.com/yorkshire-green.

A list of our webinar events follows.

Date	Time	Format
Saturday 30 October	12:30pm - 1:30pm	Webinar
Monday 8 November	6:00pm - 7:00pm	Webinar
Thursday 11 November	12:30pm - 1:30pm	Webinar
Tuesday 16 November	6:00pm - 7:00pm	Webinar
Wednesday 24 November	1:00pm - 2:00pm	Webinar
Tuesday 30 November	12:00pm - 1:00pm	Webinar
Tuesday 7 December	6:00pm - 7:00pm	Webinar

You can also request a call back from a member of the Project team at a time that is convenient to you. To do this, please use the contact details below:

Website:

nationalgrid.com/yorkshire-green

Email:

yorkshiregreen@communityrelations.co.uk

Freephone:

0800 029 4359

Our lines are open Monday to Friday 9:00am to 5:30pm; please leave a message outside these times.

How to provide your feedback

We want to make it as easy as possible for you to provide feedback on our proposals. You can do this through the following channels:

Online: Fill in our questionnaire at: nationalgrid.com/yorkshire-green.

In hard copy: Visit us at one of our events to collect a hard copy feedback questionnaire, which can be completed and handed to the team.

By email: You can send your comments or scanned electronic copies of our feedback questionnaire to yorkshiregreen@communityrelations.co.uk.

By post: You can send your hard copy questionnaire or comments to: **FREEPOST YORKSHIRE GREEN CONSULTATION** (please write this in capitals and you do not need a stamp).

Please call us on **0800 029 4359** if you have any questions about our proposals or if you require any assistance with providing feedback. Should you want any of our consultation materials in a format different to that provided, you can also request hard copies to be sent to you (excluding the Preliminary Environmental Information Report (PEIR)) free of charge by getting in contact with us. Hard copies of the PEIR will be available should that be required and will be subject to charge of £0.35 per page to cover all printing and postage costs.

Landowner interests

If you are a landowner, have an interest in any of the land that is affected by our Project, or if you have any questions relating to land interests in the area, please contact the Yorkshire GREEN Land Team at Fisher German by:

Calling: 0845 437 7357

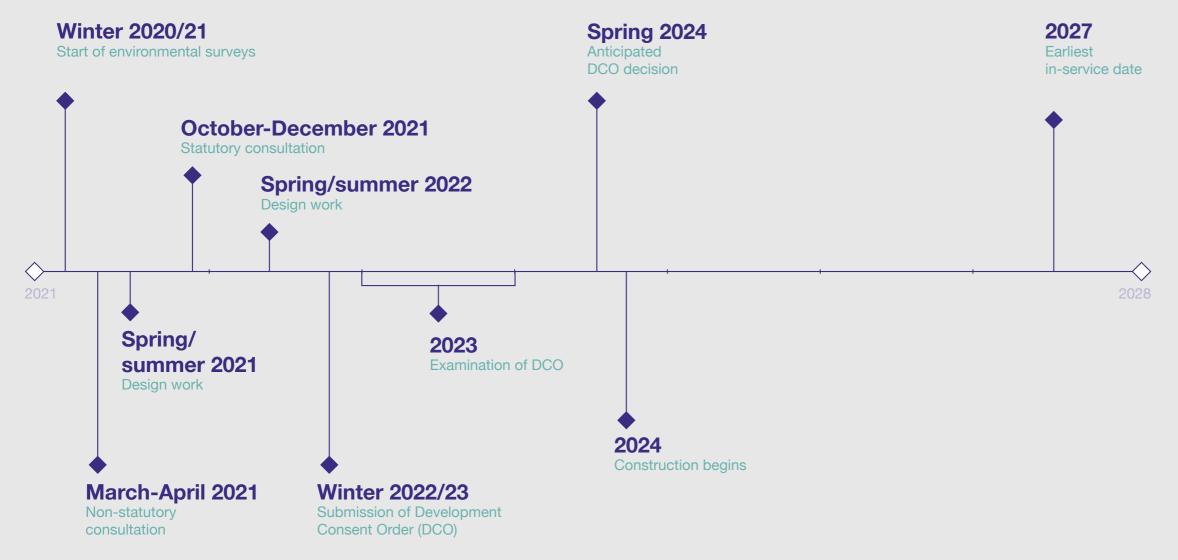
Emailing:

ngyorkshiregreen@fishergerman.co.uk

Alternatively, you can write to: YORKSHIRE GREEN, FISHER GERMAN LLP, Unit 2 Carolina Court, Lakeside Business Park, Doncaster DN4 5RA



Yorkshire GREEN Project timeline



Next steps

The feedback received during the statutory consultation will inform how the Yorkshire GREEN Project is developed further prior to submission of our DCO application in winter 2022/23.

Once this consultation has closed, we will collate and analyse all feedback received and take this into account as we refine the Project design. We will then prepare and publish a Consultation Report, which will summarise the feedback we have received and outline how we carried out both the non-statutory and statutory consultations.

The Yorkshire GREEN DCO application will be examined by a panel of Planning Inspectors who will make a recommendation on the application to the Secretary of State for Business, Energy and Industrial Strategy. The Secretary of State makes the final decision on a DCO application.