nationalgrid

Frequently asked questions

Navenby Substation
Updated in July 2026

About National Grid

This document shows how the project has been updated since our consultation in September 2024.

1. Who is National Grid?

National Grid sits at the heart of 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 customer's 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's our vision to be at the heart of a clean, fair and affordable energy future.

National Grid is a group of companies, and within the National Grid Group there are other distinctly separate legal entities, each with their individual responsibilities and roles. More information about National Grid can be found on the 'about us' section of National Grid's website.

2. Who is National Grid Electricity Transmission (NGET)?

One of the companies in the National Grid Group is National Grid Electricity Transmission (NGET), which owns, builds and maintains the high voltage network in England and Wales. This network operates primarily at 400,000 volts (400 kV) and 275,000 volts (275 kV).

It is NGET who is developing plans for Navenby Substation.

3. What is a substation?

Substations are integral features of the transmission and distribution networks and enable electricity to be transmitted at different voltages, securely and reliably. One of the main roles of substations is to convert electricity into different voltages. This is needed so the electricity can be transmitted throughout the country and then distributed throughout local neighbourhoods and into our homes, businesses and buildings.

NGET takes electricity generated from solar farms and other power sources and transports it through its network of pylons, overhead lines, cables, and substations. It then transmitted at a lower voltage via the local distribution networks to homes and businesses. The proposed Navenby Substation lies within this network.

4. Who owns substations in the UK?

NGET owns more than 300 substations, where 275 kV and 400 kV overhead power lines or underground cables are switched and where electricity is transformed for distribution to surrounding areas.

The majority of the remaining 132 kV and smaller lower voltage substations are owned and maintained by local distribution companies.

5. How does National Grid fund its projects, and how does it re-invest its profits?

National Grid funds new projects, such as power transmission lines, through an agreement with Ofgem. They pay upfront costs, which are gradually passed on to customers over 40 years. Investors support National Grid, expecting profits and eventual repayment. This approach helps to spread the investment cost over years, avoiding sudden spikes in electricity bills.

At National Grid, our priority in developing projects like Navenby Substation is to ensure energy security, support the transition to a cleaner energy system, and keep energy affordable for our customers. While we operate as a private company, our investment and project development decisions are made within a regulatory framework designed to balance the need for investment with the interests of consumers and the wider public. Our profits are regulated by Ofgem, ensuring they are fair and aligned with efficient and necessary investments in the energy system.

6. Are higher energy bills needed to pay for Navenby Substation?

The bill you receive from your energy supplier is made up of several separate charges. Some of these charges are based on the different stages through which electricity makes its way from the producers to your home. In 2022/23, £19.70 of the annual household bill was for operating, maintaining and investing in the national electricity transmission system. This charge is set by the energy regulator Ofgem and is not affected by the price of energy. Around £100 of your annual household energy bill goes to the local distributor to build, maintain and invest in the local electricity network.

About Navenby Substation

7. What is the Navenby Substation project?

National Grid Electricity Transmission is consulting on proposals to build a new substation in the local area, approximately 1.4 km from Navenby, Lincolnshire.

There is a shift towards renewable energy sources, meaning there is greater demand on our network to connect new sources of electricity and customers. The proposed substation at Navenby is in response to the increase in connection requests through National Electricity System Operator (NESO) **(see Q3)** and increased consumption of electricity that will continue to grow. In the Navenby area several developers have requested new power connections from National Grid, and as a regulated business, we have a legal obligation to meet these requests.

To connect several proposed solar farms in the area, including Springwell Solar and Fosse Green, a new 400 kV substation is needed. It is not possible to connect everything proposed in the area to existing regional substations.

8. What is the size of the substation?

The substation will be set back from the road and cover approximately 32 acres. It will be an 'open air' substation, and the equipment on site will be a maximum height of 15 metres. The proposed substation is contained within one site.

9. Will there be any pylons built as part of the project?

Four new pylons will need to be constructed as part of our plans, and two existing pylons will be dismantled. When choosing the location of the proposed substation, building it as close to the existing overhead line was a consideration to reduce the number of pylons needed.

Local communities and the environment

10. What will the impacts on the local community be during construction?

During construction we will need to carry out a range of temporary activities such as creating equipment storage areas and site offices. Ahead of the project starting, we will have completed environmental surveys evaluating the impact from dust, noise, and other environmental measures.

We will work closely with the local community to minimise the impact of our project, where we can, and support community initiatives in areas where we are working, to deliver social, economic or environmental benefits. We will write to local residents with more information on construction traffic routes and our working hours closer to construction starting.

11. How will the Navenby Substation contribute to the UK's journey towards net zero?

Navenby Substation, like all substations across the country, would enable electricity to be transmitted at different voltages, securely and reliably. This process enables electricity to be transmitted throughout the country and then distributed throughout local neighbourhoods and into our homes and businesses. We need to make changes to the network of overhead lines, pylons, cables and other infrastructure that transports electricity around the country, so that everyone has access to the clean electricity from these new renewable sources.

To connect several proposed solar farms in the area, including Springwell Solar and Fosse Green, a new 400 kV substation is needed.

The proposed substation will perform a crucial role in enabling the effective delivery of net zero by ensuring new renewable energy generation makes its way from where it is generated to where it is needed.

12. Is living next to a substation safe?

Electric and magnetic fields (EMFs) are produced from all electrical equipment, including overhead lines, cables and domestic electrical appliances. They are around us, in our homes, places of work and wherever else electricity is used. Electric fields are proportional to the voltage used in the equipment and magnetic fields are proportional to the electrical current flowing through the equipment.

In past years there has been some debate about whether living next to substations – and indeed power lines – is safe, because of the electromagnetic fields (EMFs) they produce.

No negative health effects relating to exposure to EMFs have been established. However, despite over 30 years of research, there is still some uncertainty in the science surrounding this subject. National Grid fully recognises people's concerns and takes this issue very seriously.

The safety of the public, local communities and our employees is central to everything National Grid does. In the case of EMFs, we commit to following the guidance on safe levels of exposure given by the Government and authoritative independent scientific organisations, such as Public Health England. For further information on EMFs please visit the website emfs.info or contact our helpline on:
0845 702 3270 or **emfhelpline@nationalgrid.com**

13. Will there be any noise, and dust during construction?

Ahead of the project starting, we will complete environmental surveys. If the planning application is approved and construction work begins, we will ensure that any dust, noise, and vehicle movements are appropriately mitigated. Minimising disruption is a key part of our responsibility to the communities in which we work but also the safety of others in and around this area. We will also work closely with the council to manage this and make sure we are working within our standard working parameters.

14. What will be the impact on the local wildlife?

We will be carrying out ecological surveys to assess the area and are therefore taking all necessary precautions to ensure minimal disruption to wildlife. We will also minimise the loss of any trees in line with our schedule 9 commitments.

15. Will there be any footpaths closures?

There are no foreseeable requirements to close or suspend any of the local footpaths.

16. How was the proposed location selected?

We have identified this site as the best option through a formal substation siting study, where five possible sites were shortlisted. From these five evaluated sites in the local area, a rigorous optioneering process was carried out, taking into consideration the impact on the local community, proximity to the existing overhead line to reduce the need for new pylons, environmental factors, land availability and other key measures. Through consideration of all of these factors, the site 1.4 kilometers (km) from Navenby was selected as the most suitable location.

17. How sustainable will the substation be?

Our aim is to build as sustainable a substation as possible. The exact details of this are still to be determined.

Infrastructure and construction

18. How will you minimise the impact of construction traffic on the local road network during construction?

National Grid Electricity Transmission is consulting Travel to the site, both during construction and once the site is operational, will be via the A15 and Heath Lane. Construction traffic will not be directed through Navenby village. There will be a temporary speed limit of 30mph along Heath Lane during construction, this is to enhance safety due to slow-moving vehicles entering and exiting the site. We will provide clear signage to make sure our construction traffic uses the agreed route and we will emphasise to our employees and contractors the special care that they need to take when driving to and from the substation.

19. What will be the hours of construction?

Details of our working hours will be included within our Construction Management Plan, which will be submitted as part of our planning application.

20. Will there be any late-night working?

We anticipate that the majority of our work will be completed within our standard working hours, however, there may be exceptional circumstances where work is carried out outside of these hours. In this instance, we would contact any residents or businesses that are affected by this prior to the works taking place.

21. What landscaping or tree planting will there be around the site to reduce visual impact?

We will carry out a landscape and visual assessment, and appropriate screening will be put in place to reduce the visual impact of the site.

22. Will there be local power cuts whilst the works are carried out?

No, the work will have no impact on your electricity supply. The work that we need to carry out is on part of the national transmission system and has no direct effect on homes, businesses, schools and other premises in the local area.

23. Will there be any abnormal loads/ supergrid transformers delivered to site?

Where abnormal loads are delivered to site resulting in temporary traffic measures, we will write to local residents and businesses to inform them of this. All abnormal load deliveries will be transported via the A15 and not brought through the local village.

24. How will I be kept informed during construction?

Depending on where you live and work, the impact of construction will vary. While our project is still in its early stages, we intend to keep the community informed of our plans. This will include engaging with residents and stakeholders before and after the planning application has been submitted. Our community relations team will be available throughout the project and can be contacted via email or telephone. The hotline is available between 9am and 5:30pm Monday to Friday with a voicemail service used outside these times. A member of our team will then aim to come back to you as soon as possible.

Coordination with other projects and consultation

25. How is your project linked to the proposed solar farms?

In the Navenby area several developers have requested new power connections from National Grid, and as a regulated business, we have a legal obligation to meet these requests. The NESO provides connection agreements to developers. Due to the number of requests in the local area, a new substation is required to connect these developers.

26. If the associated solar farms in the area are not built, will the substation project continue?

In the Navenby area several organisations have requested new power connections to the national grid network, and as a regulated business, we have a legal obligation to meet these requests. If the new power connections are no longer needed, the necessity for the substation will be assessed.

27. How can I share my thoughts?

You can share your feedback on our plans using one of the printed feedback forms at our public consultation or submit your feedback online through our website. You can also download a form on our website and return to us by post at Freepost FEEDBACK (No stamp or further address details are required). Alternatively, please get in touch and we will post one to you.

28. How can I find out more about the project?

If you have any questions, you can contact our community relations team via email **navenby@nationalgrid.com** or telephone **0800 319 6183**. The hotline is available between 9am and 5:30pm Monday to Friday with a voicemail service used outside these times. A member of our team will then aim to come back to you as soon as possible. Please do not hesitate to contact us regarding any queries.

29. Do you still need to build the substation following NESO's announcement regarding connection reform?

Following the announcement by NESO regarding the outcome of its connections reform consultation, we are continuing to review our plans for a substation to be built near Navenby, to ensure that current and future demand can be met.

We will continue to update the local community and our stakeholders regarding our plans as they progress.

Updated FAQs

1. Why has the submission of the planning application been delayed to Spring 2026?

We submitted the planning application later than planned, so that we could ensure any site investigation findings could be fully incorporated into the substation proposals.

2. What are the results of the archaeological surveys?

We have undertaken a programme of archaeological surveys, details of which have been shared in the planning application..

3. Will people living near to the infrastructure receive money off their bills or direct payments?

Since our consultation the government has consulted on a bill discount scheme and announced its intention to introduce a bill discount scheme for households located within 500 metres of new transmission infrastructure. This remains an evolving area of Government policy and requires new regulation before it can be brought into operation. Government aims to lay this regulation in Summer 2026, enabling implementation of the scheme in early 2027. Further information will be made available by Government as the policy develops.

In March 2025, the government introduced guidance on community benefits setting out how communities hosting new infrastructure should be rewarded for doing so. The introduction of the guidance means that if this project is granted planning approval, £530,000 will be available to invest in local, community projects.

4. What is National Electricity System Operator (NESO)

Previously part of National Grid plc, from the 1 October 2024, NESO is now a publicly owned, not-for-profit company. While the UK government (via the Department for Energy Security and Net Zero) holds the shares, NESO maintains operational independence with its own board.

5. What is Community Benefit?

In March 2025, the government introduced guidance on community benefits setting out how communities hosting new infrastructure should be rewarded for doing so. The introduction of the guidance means that if this project is granted planning approval, £530,000 will be available to invest in local, community projects.

6. What are the next steps?

We have submitted our planning application for a new 400 kilovolt (kV) electricity substation to North Kesteven District Council (NKDC). Details of the planning application can be viewed on the NKDC website planning portal here **planningonline.n-kesteven.gov.uk/online-applications/** using the reference **26/0575/FUL**.

Should the application be decided by the NKDC planning committee, we will let you know when this information is shared.

If the project is approved by NKDC, we're aiming to start construction on site in spring 2027.

7. Have you considered the environmental impact of the project?

We have carried out assessments for the proposed substation, evaluating its impact on the local environment. These assessments have helped us to understand what mitigations we need to put in place to help reduce our impact on the local environment. This information has been shared with North Kesteven District Council for consideration.

We are also committed to ensuring a minimum of 10% Biodiversity Net Gain, which means that the local environment will be left in an improved biodiverse state than before the start of the project. This will be achieved by a range of measures, such as habitat creation and enhancement for protected species.

8. How are you enhancing the existing landscaping and improving the visual impact of the site?

The landscaping approach has developed since our original consultation with the local community. To improve screening and the visual impact of the substation on the local area, design plans now include landscape screening. Design plans now include landscape screening layouts along the south east of the application boundary. The aim of the landscaping is to screen views of the substation to the east and south.

The amenities building is designed with a dark grey steel cladding, instead of a brick finish, which more closely reflects the character of agricultural buildings in the surrounding area. This would allow the building to sit more discreetly within the rural landscape.

9. How are you enhancing the local environment?

Biodiversity Net Gain (BNG) is a way to ensure that the environment is left in a better state after construction than it was before the work started.

The decline of biodiversity in the UK is well documented, and we are mindful that our activities can impact habitats and therefore species' ability to thrive. We are committed to deliver BNG on site to the existing standard, plus 10%.

Once customer cabling routes are confirmed, the full BNG plan will be finalised, but currently we're aiming to leave existing landscaping and screening where it is, this involves removing the absolute minimal amount around the site boundary. We are also planning to keep existing trees that are on the edge of the site nearest the village and have some open grassland to support skylarks.

10. Can you explain how the noise assessments will be undertaken, including the different standards and criteria used to assess the noise and how far the noise will travel?

We have agreed with the local authority that the noise assessment process will be defined by the British Standard BS4142 'Method for rating and assessing industrial and commercial sound', which considers the potential for noise impact at the quietest times of the day or night. BS4142 also applies corrections to noises that may be considered out of character with the local environment. Following this process will enable us to define any appropriate noise mitigation measures.

Contact us

Our dedicated community relations team are on hand to answer any questions you may have about the proposals. Please do not hesitate to contact a member of the team on:

Phone: **0800 3196 183**
(Monday to Friday, 9am – 5.30pm)
Email: **navenby@nationalgrid.com**
Website: **www.nationalgrid.com/navenby**

You can also write to us using our freepost address:

Freepost FEEDBACK
(no stamp or further address required)

National Grid plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick CV34 6DA
United Kingdom

nationalgrid.com