Great North Road Solar & Biodiversity Park – EN010162
Carlton-on-Trent Parish Council – Reference number: [redacted]
Deadline 5 response

Carlton-on-Trent Parish Council remain disappointed with the lack of specific information received by the applicant.

While we have received an email from the applicant there was a lack of specific information that would help us to assess the impact of the project on our village.

The assessments made by the applicant, such as traffic survey, the wildlife study, visual impact on heritage assets... the list goes on, are all scant and do not reflect the reality at Carlton-on-Trent. The traffic assessment along the Ossington Road, B1164, does not reflect reality, we are therefore unable to accept the noise assessment and question its validity in this project.

Carlton-on-Trent Parish Council are perplexed at how the applicant can consider installing a substation off the Ossington Road (B1164) when there are clearly other significantly better options available. We have put this to the applicant in an email and await a reply.

Given that there is a likelihood that substations will remain after other parts of this project are decommissioned in 40 years' time, we urge the Inspectorate to insist that the applicant sites this piece of infrastructure, if it remains necessary, in a different place.

A copy of the email received from the applicant on 26th March and our response is attached.

RE: RE: Water displaced by panels at Carlton-on-Trent

I <info@gnrsolarpark.co.uk>
To: [redacted]@carltonontrent-pc.gov.uk>
Cc: <clerk@carltonontrent-pc.gov.uk>

March 26, 10:11 AM 1

Hi [redacted]

Thank you for your patience while we reviewed your queries.

Please find below a summary of your questions, along with our responses, as well as links to relevant documentation on the PINS website.

- **A proposed image of the substation**
  - Images of a typical 132 kV substation and typical 400 kV substation can be found on page 55 of the Design Approach Document linked here.

- **Dimensions of the substation**
  - Concept design parameters and principles for intermediate substations and an up to 400 kV substation can be found in this document.
  - It's important to note that their location must be located within the corresponding numbered area shown on the Works Plans, linked here. Please note, Work Area 4 shows the intermediate substations, and Work Area 5b shows the 400 kV compound.
  - In addition to the above, elevation plans for both a 132 kV substation and 400 kV station can be found here (for 132 kV) and here (for 400 kV).

- **Plan showing distance from the road and the wood**
  - Four Intermediate Substations are proposed, each more than 300 m from the nearest residential property, as detailed on page 11 of the Non-Technical Summary of the ES:
    - On the north side of the road between Ossington and Carlton-on-Trent (in field 165 as shown on Figure 5.1);
    - On the south side of the A616, 1 km east of Kersall (in field 84 as shown on Figure 5.1);
    - Up the hill, south of the road between Maplebeck and Caunton, 1 km southeast of Maplebeck (in field 59 as shown on Figure 5.1); and
    - On the southeast side of the road between Hockerton and Caunton, almost opposite the current 'Bedmax' site (in field 41 as shown on Figure 5.1).
  - The Work no. 5b, 400 kV Compound, area is located around 300 m northeast of the A617 and 1.3 km northwest of Averham (in field 238 as shown on Figure 5.1).

- **Where the cables coming to and from the substation will be routed**
  - Buried electrical cables are included in some other Work Areas, such as Work no. 1, Solar PV, but cables are also needed to link the solar PV areas to the substations and link the substations together. This is the purpose of Work no. 2, as detailed on page 10 of the Non-Technical Summary of the ES.
  - The maximum cable trench width is 12 m, with a 9 m working corridor (for construction) either side, leading to a maximum width of 30 m actually being required within Work no. 2. Generally, with fewer cables needed at most locations, the width of the trench will be much less than 12 m.
  - Figure 5.1 (Works Areas No. 2) shows where cables will be located.

- **Where and how this will connect to the main grid**
  - Substations and associated infrastructure are required to connect the scheme into the national grid at the existing Staythorpe Substation.
  - The electricity generation, transmission and storage infrastructure across the Development would be connected by underground cables. No new overhead power lines are proposed as part of the Development. This is detailed in the Design Approach Document linked here.

- **What size are the cables, both dimension and current**
  - As outlined in the Non-Technical Summary of the ES, the Work no. 2 areas are shown as approximately 60 m wide (Figure 5.1) in most places which is much larger than is expected to be needed but is the corridor within which the cable route is expected to be located, to give flexibility for the designer post-consent.
  - The maximum cable trench width is 12 m, with a 9 m working corridor (for construction) either side, leading to a maximum width of 30 m actually being required within Work no. 2. Generally, with fewer cables needed at most locations, the width of the trench will be much less than 12 m.

- **How are the cables insulated/protected**
  - As noted in Outline Construction Environmental Management Plan, the entry point of any cable or ducting into chambers will be sealed to prevent water ingress and protect the infrastructure. Sand will be brought onto the site and placed around cables for protection, suitable duct markers will be installed in the trench prior to backfilling. The trench will then be backfilled and compacted in layers with suitable material and reinstated with previously excavated surface soils and vegetation.

- **How deep down into the ground do the cables go**
  - As noted in Non-Technical Summary of the ES, the maximum cable trench width is 12 m, with a 9 m working corridor (for construction) either side, leading to a maximum width of 30 m actually being required within Work no. 2. Generally, with fewer cables needed at most locations, the width of the trench will be much less than 12 m.

- **Where will the soil go that is dug out**
  - As detailed in Outline Soil Management Plan, if topsoil is removed, it will be stored in the short-term in locations not at risk of flooding, if the soil is likely to be stored for in excess of six months then, depending on timing, it will be seeded with grass. Temporary storage can be up to 3m in height.

- **What visual impact will this have on the area**
  - As described above, soil storage can be up to 3m high in appropriate conditions, Outline Soil Management Plan provides a series of images showcasing what these soil storage mounds may look like, including Photo 36 which depicts stored soil in the context of integrated seeded grass.

- **How will you mitigate visual impact**
  - Visual impacts that may be caused by the proposals have been detailed in ES Chapter 7, and Outline Landscape and Ecological Management Plan, and appropriate mitigation provided. Key measures to mitigate landscape and visual effects are incorporated within the design, and include:
    - Site selection avoiding designated landscapes;
    - Site selection for panel areas avoiding more sensitive landscape character types, focussing on larger scale, flatter arable landscapes;
    - Visibility from settlements being minimised in the selection of solar panel areas and locations for the substations and BESS;
    - Panels being set back behind existing hedges which would be gapped up and grown taller to provide screening;
    - New hedgerow planting provided around solar areas where hedges are absent and tree planting along northern boundaries and around substations/BESS;
    - Seeding and management of panel areas to establish meadows;
    - Diversion of Public Rights of Way (PRoW) to avoid routes passing through the middle of panel areas where there would be open views of solar panels to both sides;
    - Selection of fencing, CCTV and lighting to minimise their visual impact;
    - Minimal use of lighting during operation and construction;
    - Retention of existing trees and hedges by using 15 m root protection zones and 5 m setbacks from field boundaries in the design of development areas, and use of existing field accesses where possible;
    - Reinstatement of hedges where they are removed for cable laying; and
    - Solar panels would be set back a minimum of 100 m from homes where panel areas would be openly visible.

- **What noise measurements have you taken and where from**
  - For the purposes of the ES, baseline noise measurements are detailed in Technical Appendix 12.1: Noise Survey, assessment locations and representative monitoring locations are listed in table A12.1.1. Further a detailed Noise and Vibration Modelling has been provided as Technical Appendix A12.2: Noise and Vibration Modelling.
  - In general and as outlined in the Non-Technical Summary of the ES, Operational noise will be controlled through the application of noise limits at the nearest noise sensitive receptors. The noise limits will be achieved through detailed design and selection of equipment. As required by the DCO, an operational noise assessment will be submitted to the Council prior to each phase of the Development being commenced based on the final layout and equipment selection for that phase, demonstrating how the noise limits will be complied with.

- **What affect this will have on the wildlife in the Ancient wood**
  - As detailed in the Non-Technical Summary of the ES, the solar park site is dominated by farmland, mostly fields of arable crops surrounded by a network of hedgerows of various types, many including mature broadleaved trees. Surveys have been carried out to classify and map habitats. Grassland occurs in various forms, mostly as pasture, field margins and the unmanaged margins of watercourses. There are also patches of woodland within the solar park site and more extensive and ancient examples bordering it. The potential adverse effects have been minimised by designing the Development to avoid, as far as possible, the most sensitive ecological features, such as ancient woodland.
  - An Outline Construction Environmental Management Plan (CEMP), incorporating a Construction Ecological Management Plan (CEcMP), has been prepared (included in Volume 4 as Technical Appendix A5.3) which includes a range of good practice measures to further reduce and avoid potential negative effects during construction. An Outline Landscape and Ecology Management Plan (LEMP) has also been prepared (included in Volume 4 as Technical Appendix A5.1) to demonstrate how land will be managed over 40 years to reduce potential negative effects and to benefit biodiversity. The LEMP has been and will be developed in consultation with a range of organisations to ensure that it supports local and national nature conservation projects and provides a net gain in biodiversity.
  - The measures incorporated into the design and specified in the Outline CEMP will avoid potential negative effects or reduce them to acceptable levels. No potential significant cumulative effects were identified.

- **How will vehicles access the site**
  - Site access arrangements are extensively detailed in ES Technical Appendix A5.2: Construction Traffic Management Plan. An overview of the site access locations can be seen in Figure A5.2.1 presenting the location of the existing (to be upgraded) and new accesses proposed. Access drawings are included within Appendix D of the Transport Assessment [EN010162/APP/6.4.14.1]. These will all be subject to a Road Safety Audit process before construction.
  - A total of 19 primary access locations are proposed, of which 12 are existing access locations, many of which will require upgrading to ensure they have appropriate visibility, geometry and surfacing, and these are identified in Table A5.2.2 and Table A5.2.3. There are 7 new access locations proposed to operate as a primary access, which have been located to best suit the Development needs (including serving the internal routing of HGVs), visibility and minimise environmental / ecological impact, i.e., reduce the need to remove hedgerow, trees and general vegetation. All access locations will be retained for continued use during the operational and decommissioning phase.

- **How many vehicle visits will be required to construct the substation and how will this be managed**
  - The management of the vehicle access arrangements as noted above can be found ES Technical Appendix A5.2: Construction Traffic Management Plan. Table A5.2.4: Construction Phase Traffic details the traffic flow identified for each construction phase of the associated infrastructure including the substations.

- **How will the site be maintained post erection**
  - Operational and maintenance activities will be undertaken in accordance with the Landscape and Ecological Management Plan, an Operational Environmental Management Plan, an outline of which is included in the ES. The BESS will be operated in accordance with an Outline Fire Safety Management Plan (FSMP); TA A5.4). Final versions of these documents, based on the outline versions, will be prepared before operation starts, and submitted for approval to Newark and Sherwood District Council.
  - The Operational Environmental Management Plan in particular details operational activities, roles and responsibilities as the proposal moves into the operational phase, working hours and associated lighting, security measures, pollution prevention and control (including potential Hydrocarbon contamination and details on chemical storage), management and mitigation plans in relation to the operational phase, monitoring and recording measures and suitable archaeological protection.

- **Post operation will the site be decommissioned and returned to its current state, including removal of underground structures**
  - At the end of the operational phase, the Development will be decommissioned over a period of 18 to 24 months.
  - The ES includes, as TA A5.6, an Outline Decommissioning and Restoration Plan (DRP). This sets out that the solar PV and BESS elements of the Development will be removed at the decommissioning phase and the land restored for agriculture. Other elements, including the substations and some of the habitats created as part of the Development, may be retained depending on the need for this equipment for other purposes at that time, and so flexibility is left in the DRP for decisions on these things to be made near, but before, the time of decommissioning. The outline DRP will be used as the basis of a final DRP to be prepared prior to decommissioning, and this will be submitted for approval to Newark and Sherwood District Council.
  - The outline DRP includes control measures comparable to those proposed for the construction stage, to ensure there is a similar level of control over decommissioning traffic and environmental impacts.

Kind regards,

[redacted]

Stakeholder Correspondence

Solar & Biodiversity Park

By email 15.04.2026

Hi [redacted],
Thank you for the information in your email.

We notice this reply came March 26th 10:11am, the morning after the Deadline 4 closure, which also occurred after Deadline 3 closure.

For clarity: The questions you have responded to are those that were posed primarily in relation to our concerns regarding the substation and noise (created by traffic), which were in a different email chain.

The questions regarding flood alleviation at Carlton-on-Trent below have not been answered by anyone.
In the interest of simplicity, I have included all questions together on the attached and hope that you can continue to pull the necessary advisor's responses together.

1. **a proposed image of the substation**.

Thank you, we had located these images, however there is a difference in the sizes of the two and you have not specified which is planned for Carlton. We have read Carlton substation will be constructed in Work Area 4,
Please confirm that the planned substation is NOT a 400kV (which are planned for Work Area 5) but IS a 132kV substation.

2. **Dimensions of the substation**

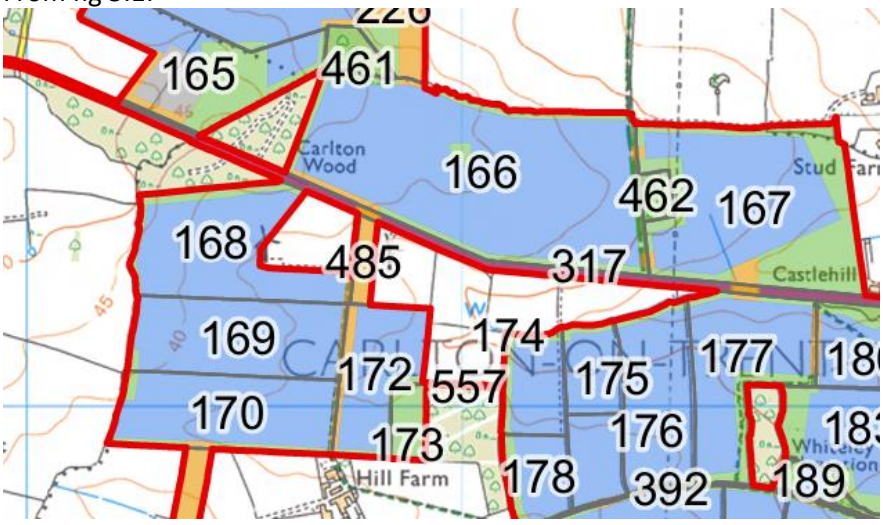
We had already identified which field you plan to put the substation, next to Carlton Wood, an Ancient Woodland.
Please provide specific dimensions, if this has yet to be confirmed please say so. We are trying to build up an understanding of the proposal and how it will impact on its immediate environment, hence why we ask about distance from the road and what screening is planned below.

3. **plan showing distance from the road and the wood**

See above

4. **where the cables coming to and from the substation will be routed**.

From fig 5.1:



This does not help to show where the cables will be coming from or going to. Is it possible to show with arrows? Orange 'cable' lines are disjointed, the line in the proposed substation field is not connected to anything, presumably this is covered by the red line. Could you please send us image 5.1 without the redline to help us understand proposed cable layout, with a better explanation please. This in turn will help to answer question 5 below.

If we have assumed correctly that cabling will go between the woods along the B1164, how do you propose to fit the trench here?
Cabling near the substation will be of significant size meaning trenches will be 30m wide, the road ranges in width between the woods from 4.7m to 5.2 at its widest. This is not wide enough forcing you to go along the roadside verges, cutting into the tree roots **AND into** the woods - which you have scoped out of the EIA and say will not be part of the project. To be clear the verges form part of the wood, they are not adopted by highways and belong to the estate.

The width of the areas between the woods and the road also varies on each side; the north 1.8m – 5.75m, and the south 4.7m – 6.75m. Total width ranges from 11.3m – 17.3m. No where is wide enough to take a 30m wide trench (the figure you sent us) and as you can see there are areas that will not accommodate the 12m trench either.

5. **where and how this will connect to the main grid**

See above

6. **What size are the cables, both dimension and current**

To enable us to understand the points raised in question 4 above, and given number of panels in each field is already known, please be specific for the cable size to be used at Carlton and therefore the trench size.

7. **how are the cables insulated/protected**

Answered

8. **how deep down into the ground do the cables go**

You provided information on trench width; we were unable to locate the trench depth. This is to give us an indication of the likelihood of damage to tree roots and volume of soil being removed.

9. **where will the soil go that is dug out**

Thank you for the explanation of soil management however the question of **where** the soil will go remains unanswered. This will impact on HGV movements.

10. **what visual impact will this have on the area**.

We were specifically talking here about the substation. We understand screening may be added from tree and/or hedge planting, but where will this be (there is already a hedge), be specific. You have also identified there will be meadow planting around the substation.
If this is not yet known, please say.

11. **How will you mitigate visual impact**

The installation of cabling will destroy current tree screening due to root destruction, and any mitigation to match that removed will take 100+ years to establish!

12. **what noise measurements have you taken and where from**

We are still assessing the impact of noise due to the increase in HGV movements on the Ossington Road, B1164

13. **What affect this will have on the wildlife in the Ancient wood**

Apologies – we were focusing on the effect of the substation on Carlton Wood, therefore your previous answer was too broad.
In the Non-Technical Summary https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010162-000210-GNR_6.1.1_ES_Non-Technical%20Summary_Part%201%20of%204.pdf page 22-23 it specifically states that:
"The potential adverse effects have been minimised by designing the Development to ***avoid,*** *as far as possible, the most sensitive ecological features, such as* ***ancient woodland."*** (my bold)

and yet here you plan to put a substation surrounded on three sides by ancient woodland.

14. **How will vehicles access the site**.

Again, we are focusing on the Carlton-on-Trent area and access to the proposed substation site, apologies I didn't make the clear previously. That said we were able to locate the site access point PA14, thank you.
If PA14 is to be a secondary access that would indicate following construction the access will cease to exist, how will the maintenance of the proposed substation be carried out. If we have misunderstood, please let us know.

15. **How many vehicle visits will be required to construct the substation and how will this be managed**

Could you please explain traffic movements to and from the proposed substation site and how many you anticipate that will be and for how long

a) during construction
b) during operation
c) and if you know...during decommissioning (if that was to happen)

16. **How will the site be maintained post erection**

Related to if the access point was removed – which would also mean the access would need to be of a different design to that currently proposed and the road here is narrow.

17. **Post operation will the site be decommissioned and returned to its current state, including removal of underground structures**

Thank you for steering us to the correct document. We understand there is no intention to remove any of the underground cabling following decommissioning. Could you confirm if that is correct?

If we have misunderstood, or if some cables are to be removed could you confirm which in the Carlton-on-Trent area?
The land is saturated for long periods of time and we are concerned about long term degradation of the cabling and, what would seem to be inevitable land contamination.

18. **Use of current substation and/or current substation site at Carlton-on-Trent.**

As you will be aware there is already a substation at Carlton-on-Trent.
Could you explain what process you went through to discount this. If you could include any communication with National Grid regarding this that would help us to understand.

We do not profess to be experts on how the grid system works, but to use the existing substation, or at least share this site would have prevented so many of the problems identified above.

- The current substation already has vehicular access
- Infrastructure such as hard standing and security is already in place.
- Access to the grid already exists.
- The site is a substantial size and would accommodate a further substation should it not be possible to piggyback onto the existing one
- Screening is established – there may be a need to extend this if a second substation was to be built but we consider this would still be an improvement on the current proposed site.
- The site is shielded by the bund effect of the slip road also mitigating noise
- You will not be destroying trees in an ancient wood
- There would be less restricting access to Carlton Wood for wildlife since one side would now be open
- The expectation is that substations will exist beyond the 40 years - after the rest of the project is decommissioned. This option will enable the current ancient woodland to become significantly more important due to the passage of time. The land will be retained for agriculture, and Carlton will after 40 years still have only one area that contains substation infrastructure NOT two.

Please give any explanation in response in simplistic terms and refrain from using jargon.

Flood mitigation measures at Carlton-on-Trent

1. **For Carlton-on-Trent: please send a map showing where any SuDS works will be placed**.

There has been significant discussion regarding SUDs with the indication that plans have been discussed, we have not yet seen any indication that you have considered any flood alleviation measures for Carlton-on-Trent

2. **If you are able, please say how the SUDs will be constructed and when. Where will the soil go if any is to be removed.**

If you do not yet know please say.

3. **How will the SuDS be maintained**.

Any SUDs will cease to be effective if it is not maintained. How often will maintenance take place.

4. **If the SUDs are not effective, what alternative will be implemented. What is 'Plan B?'**

We are concerned that little significance has been placed on the impact of the runoff and the effect it will have on our village. We have come to this conclusion due to the lack of feedback and following the discussions we have had.

5. **Where and when, were two crops harvested in one year, what were they, and which field(s)**