



Great North Road Solar and Biodiversity Park

Phase 2 Consultation

Representation of JPAG

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This representation has been produced in response to the consultation on a Nationally Strategic Infrastructure Project and the conclusions it reaches are based upon the consultation material published, due diligence investigations of public records and the information provided to the company by the client and/or their representatives. The author of this representation is Anthony Northcote, Executive Director of TOWN-PLANNING.CO.UK. He holds a Higher National Certificate in Land Administration (Planning) with Distinction; Diploma with Distinction in Town Planning; Post-Graduate Diploma with Distinction in Urban and Regional Planning together with a Master of Arts Degree in Urban and Regional Planning. He was elected to the Royal Town Planning Institute in 1996 and now has over 35 years planning experience within the public and private sectors involving a full range of planning issues. In addition, he is also a Member of the Institute of Leadership; a Member of the Chartered Institute of Management; a Member of the Town and Country Planning Association; a Member of the United Kingdom Environmental Law Association; and a Fellow of the Geological Society.

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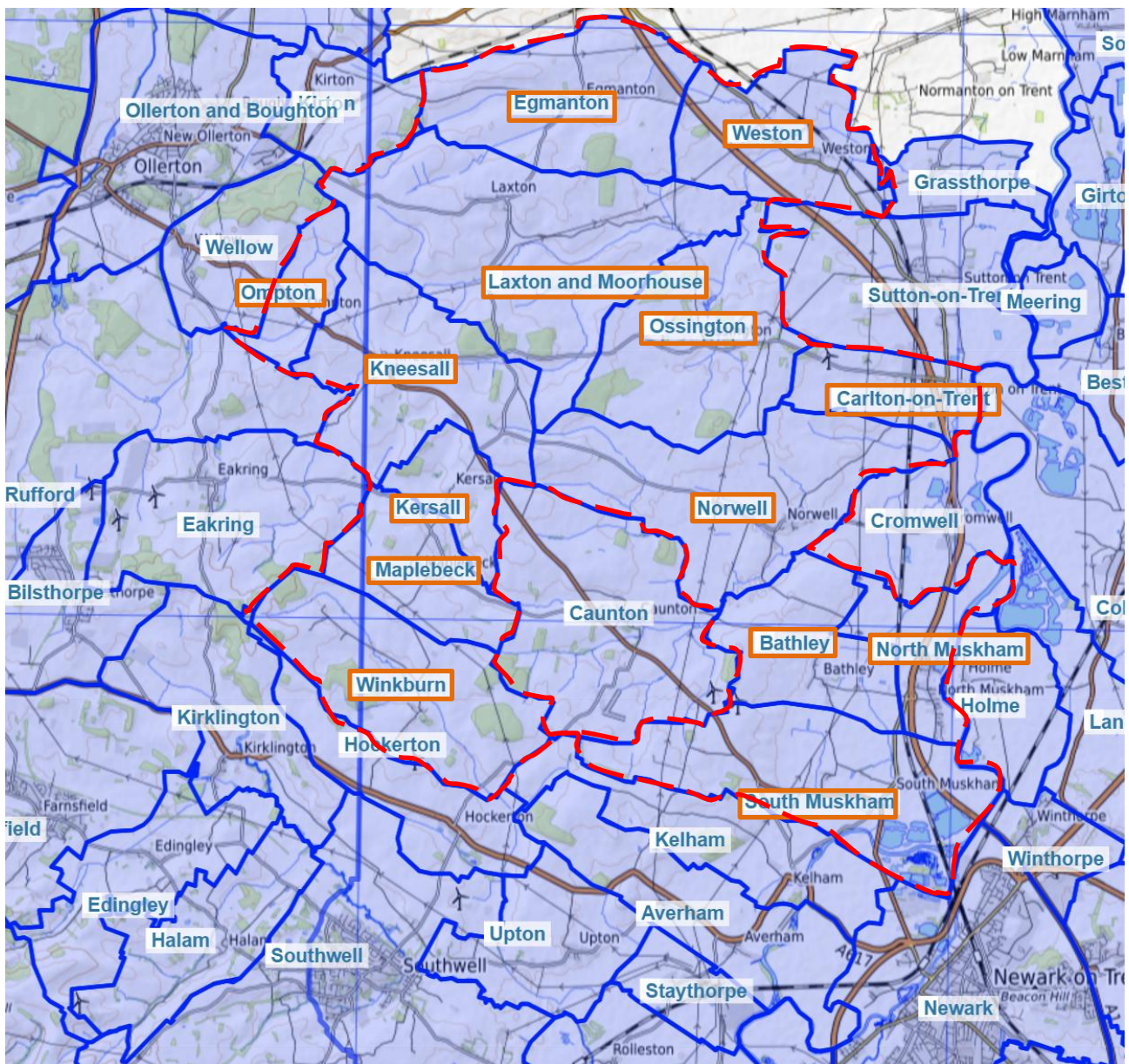
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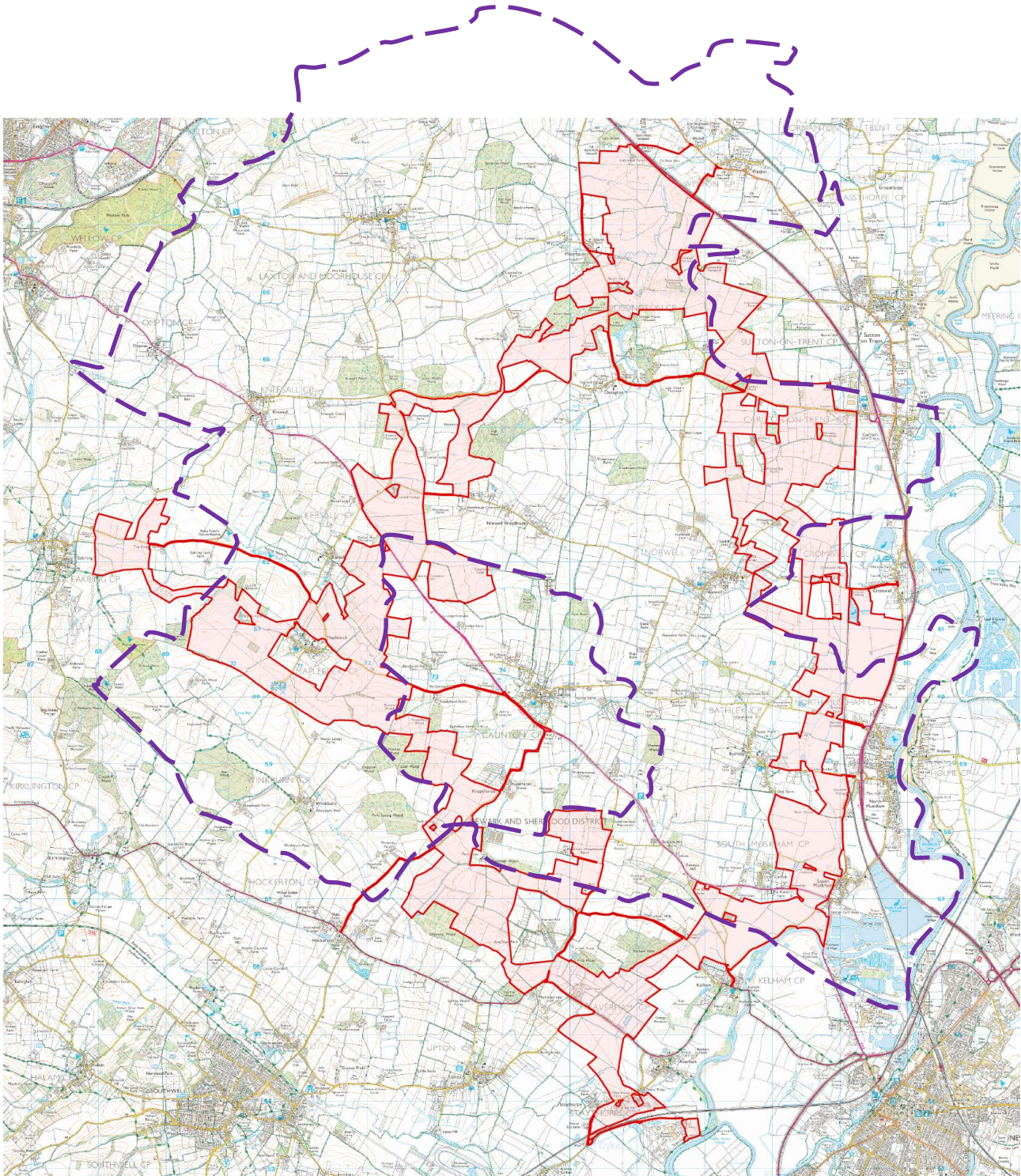
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JPAG

1. JPAG (Joint Parishes Action Group) is an alliance of Parish Councils and Parish Meetings who have come together to respond to the Great North Road Solar and Biodiversity Park, including through the production of this representation in objection to the Great North Road Solar and Biodiversity Park.
2. JPAG is chaired by Councillor Ian Harrison of North Muskham Parish Council and includes representatives from 12 Parish Councils and Parish Meetings who collectively cover a majority of the Parishes covered by the Great North Road Solar and Biodiversity Park.



 Area Covered by JPAG Parishes - Name Highlighted in Box 



Area Covered by JPAG Parishes Overlaid on Site Location Plan

3. JPAG formally covers 14 Parishes in Newark & Sherwood and involves the following bodies:

- Bathley Parish Council
- Carlton on Trent Parish Council
- Egmanton Parish Meeting
- Kneesall, Kersall & Ompton Parish Council (3 Parishes)

- Laxton & Moorhouse Parish Council
 - Maplebeck Parish Meeting
 - North Muskham Parish Council
 - Norwell & Norwell Woodhouse Parish Council
 - Ossington Parish Meeting
 - South Muskham & Little Carlton Parish Council
 - Weston Parish Council
 - Winkburn Parish Meeting
4. In addition, in agreeing this representation the meeting was also attended by Averham, Kelham & Staythorpe Parish Council (*who cover Averham, Averham Park, Kelham & Staythorpe*) and Upton Parish Council.
5. In this response, the JPAG is focussing on a handful of key strategic issues that relate to more than a single Parish. The JPAG notes that individual Parish Councils and Parish Meetings are also making detailed comments on the more localised issues.

Responses by Others

6. JPAG is aware that technical and detailed submissions are being made by Norwell and Norwell Woodhouse Parish Council with assistance from the Norwell Solar Farm Steering Group. As a consequence of the Foxholes Solar Farm proposal in Norwell, local residents and councillors in Norwell and Norwell Woodhouse have developed skills and understanding of solar proposals which have been invaluable to the wider JPAG.
7. Across these various representations the aim is provide a series of complementary responses and avoid unnecessary duplication of volunteer effort and public resources.
8. In addition, JPAG is aware that Newark & Sherwood District Council¹ is intending to focus its efforts on responding to:
- a) Landscape Character and Visual Impact
 - b) Public Rights of Way (user amenity)

¹ The Newark and Sherwood Planning Committee on the 6th June 2024 had a report updating them on progress on the NSIP Solar Proposals in the District, i.e. Great North Road Solar and the One Earth Solar - <https://democracy.newark-sherwooddc.gov.uk/documents/s19989/FINAL%20Solar%20NSIP%20Report%20Final.pdf>. A further update report to the Planning Committee on the 5th December 2024 provided a factual update but did not alter the list of topics that the District Council intended to cover. A further update report to the Planning Committee on 13th February 2025 reiterated that they were seeking specialist advice from external advisors on topics to include Landscape and Visual and Agricultural Land Classification

- c) Cultural, Built and Buried Heritage (Conservation and Archaeology)
 - d) Noise
 - e) Ecology and Biodiversity
 - f) Agricultural Land Classification and Impact
9. The District Council also identified that they intended to instruct consultants to provide expert assistance where needed, e.g., Landscape Character and Visual Impacts. Delegated authority was given to the Director for Planning & Growth (who may delegate to authorised officers), in consultation with the Chair and Vice-Chair of Planning Committee to respond to any consultation on NSIP proposals. The District Council has confirmed² that at this pre-application stage they will seek to comment on any inadequacies in the assessment work undertaken so far, alongside the nature of any potential impacts at this stage.
10. Again, in formulating its representation, JPAG has had cognisance of the topics on which Newark & Sherwood District Council had indicated that it intends to focus its comments and as such JPAG has sought to avoid unnecessary duplication of effort.
11. The County Council has not published any summary as to what topics they may be considering to respond on. Previous discussions on GNR with Cllr Bruce Laughton who represents much of the area on the County Council has indicated that the County Council will probably focus on their statutory roles in relation to:
- a) Flood Risk and Drainage
 - b) Impact on Rights of Way
 - c) Traffic, Transport and Highway Safety
12. JPAG is also aware that Sutton on Trent Parish Council have chosen not to participate in a collective response at this stage and that they have commissioned consultants to assist them with their own comments. It is expected that Averham, Kelham and Staythorpe Parish Council will individually address local cumulative impact and also address the BESS on safety and visual impact grounds.

Project Name

13. The applicant (Elements Green Trent Ltd) has chosen to change the project name to Great North Road Solar and Biodiversity Park. This is purely a branding and marketing strategy

² In the report to the Newark and Sherwood Planning Committee on the 13th February 2025 - <https://democracy.newark-sherwooddc.gov.uk/documents/s21930/FINAL%20GNR%20Statutory%20Consultation.pdf>

and in no way changes the basic element that the project is a Solar Farm which is within the definition of being a Nationally Strategic Infrastructure Project (NSIP), thereby requiring a Development Consent Order (DCO). A Biodiversity Park is not within the statutory definition³ of being an NSIP project.

14. For ease in this representation, we refer to the proposal as GNR. This project is defined as a Nationally Strategic Infrastructure Project (NSIP) under the Planning Act 2008 (as amended). As such it doesn't need to obtain planning permission but instead needs to obtain a Development Consent Order (DCO).

Community Benefits

NG+

15. The applicant on the GNR scheme has put forward a potential community benefit fund known as NG+ that would be available in the event that the DCO was granted by the Secretary of State (who make a final decision on NSIPs, following a recommendation from the Examining Authority). However, JPAG members are aware that there is no legal requirement for community benefit to be offered, nor is there a mechanism by which it can be secured through the planning process.
16. It is noted that Newark & Sherwood District Council has clearly advised⁴ that the community benefit fund cannot be afforded weight as a material planning consideration by the decision maker. The suggested NG+ scheme is therefore offered on a voluntary basis and there is no means by which financial community benefit can be guaranteed. This is a point that is subject to ongoing debate at government level with a recent Parliamentary debate⁵ on this matter.
17. On the issue of community benefit it is considered that the consultation has not made it sufficiently clear that the financial community benefit through NG+ cannot be guaranteed or secured through the DCO process. The same is applicable to the suggested EG Education

³ The Planning Act 2008 (as amended) creates a separate consenting route for major infrastructure projects in the fields of energy, transport, water, wastewater, and waste – termed Nationally Significant Infrastructure Projects (NSIPs). To qualify as an NSIP, a proposed project must meet certain thresholds defined in Part 3 of the Planning Act (the Secretary of State may add to/amend these thresholds by Order). Provision is also made under section 35 of the Planning Act for the Secretary of State to issue a direction, the effect of which is to bring other projects into the remit of the NSIP consenting process.

⁴ Report to the Newark & Sherwood Planning Committee on the 5th December 2024 - <https://democracy.newark-sherwooddc.gov.uk/documents/s21278/FINAL%20Planning%20Report%20NSIPs%20Update.pdf>

⁵ <https://researchbriefings.files.parliament.uk/documents/CDP-2024-0127/CDP-2024-0127.pdf>

and ED Academy initiatives. Consultation boards such as that on the Rooftop PV Grant Scheme in fact appear to mislead attendees that this is an integral part of the project.

18. The same is the case for the consultation board on flood prevention schemes where NG+ funding for Sustainable Drainage (SuDs) again appears to mislead attendees that these are part of the overall project. Similar references to NG+ initiatives were also contained on other consultation boards.
19. The NG+ map identifying some 39 initiatives superimposed on a map showing the NSIP project area is considered to be particularly misleading and incorrectly appears to suggest that these initiatives are part of the overall NSIP scheme. Other aspects such as UK sourcing as set out in the consultation boards again cannot be secured through the DCO process. Overall, this calls into question the adequacy of consultation which we return to shortly.

Pre-Existing Flood Alleviation

20. The applicant has also suggested in various public meetings that certain works such as flood alleviation schemes could be provided by them to address existing issues. However, as such works would not directly relate to the NSIP scheme itself, then such works cannot be secured through the DCO and they would need separate planning permission.
21. It is acknowledged that the applicant does acknowledge this fact in the technical documents and did on the flood risk consultation board refer to planning applications. Albeit in the context of the consultation the public are unlikely to have appreciated the subtlety of the terminology used. Particularly given the use of the NG+ map showing these as some of the 39 initiatives superimposed on a map showing the NSIP project area which suggests a direct connection.
22. These potential flood alleviation schemes for pre-existing issues fund cannot be afforded weight as a material planning consideration by the decision maker. These potential schemes require a separate planning permission which may or may not be granted. Even if GNR were to be permitted, the presence of such a consent could not predetermine the decision-maker on the suggested pre-existing flood alleviation schemes.
23. They are being offered on a voluntary basis and there is no means by which these suggested pre-existing flood alleviation schemes can be guaranteed or secured through the DCO process.

Case Law

24. The issue of whether a community benefit scheme which sat alongside a planning application should be considered in the planning process was considered in the Supreme Court in the case of *R v Resilient Energy Severndale Ltd and Forest of Dean District Council* [2017]. In that case Lord Swales stated:
- “The benefits were not proposed as a means of pursuing any proper planning purpose, but for the ulterior purpose of providing general benefits to the community. Moreover, they did not fairly and reasonably relate to the development for which permission was sought.”*

Adequacy of Consultation

25. Chapter 2 of Part 5 of the Planning Act 2008⁶ sets out statutory requirements for applicants to engage in pre-application consultation with local communities, local authorities⁷, statutory consultees and those who would be directly affected by the project⁸. In broad terms s42 of the Planning Act 2008 sets out the duty to consult, with s47 of the Planning Act 2008 setting out the duty to consult local communities and s48 of the Planning Act 2008 setting out the duty to publicise.
26. At the time of submission (acceptance) it is for the Planning Inspectorate to decide whether adequate pre-application consultation in line with the legislation has been undertaken. If not, then the application would not be accepted to proceed to examination. The Planning Inspectorate takes into account the responses received from local authorities during the acceptance period to determine on behalf of the Secretary of State whether the consultation is adequate.
27. The Planning Inspectorate can either accept or decline to accept the application for examination. Where during the acceptance stage the Planning Inspectorate considers that the application is not satisfactory, it may advise the applicant to withdraw the application, and if appropriate can also recommend that the applicant carries out further consultation activity or engagement before the application is resubmitted.

⁶ <https://www.legislation.gov.uk/ukpga/2008/29/part/5/chapter/2>

⁷ In our case Newark & Sherwood District Council and Nottinghamshire County Council, but not Parish Councils as they are not in the statutory definition of a local authority for this purpose. Although a Parish Council is a statutory consultee at the pre-application stage under the provisions of Schedule 1 of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

⁸ i.e. parties who own land that they may need to compulsorily acquire

28. As indicated above in relation to the manner in which the consultation has been portrayed in relation to community benefits, there is genuine concern about the adequacy of consultation.
29. The sheer size of the GNR scheme and the consequential sheer volume of supporting material is directly related to the issue of adequacy of consultation. As the Preliminary Environmental Information Report (PEIR) acknowledges, the Development extends across an area of 18,119.9ha, with some 2,899.7ha, being encompassed within the Order Limits.
30. The applicant has not had due regard to the volume of supporting material in determining the consultation period for this proposal. Factors such as the time of year and weather can have a detrimental impact on public engagement and the ability of certain groups of society from engaging with the consultation. Consultation in the depth of winter in January and February is less than an ideal time of year to achieve public attendance at consultation events for example.
31. The pre-application stage includes work that an applicant will undertake to prepare their application through to its submission to the Planning Inspectorate. Key statutory milestones during pre-application include:
- consultation on, and publication of, a Statement of Community Consultation (SoCC);
 - where applicable, preparation of a screening opinion, scoping opinion and preliminary environmental information associated with any Environmental Statement to be submitted as part of the application;
 - notification of the proposed application to the Planning Inspectorate acting on behalf of the Secretary of State;
 - statutory consultation with specified bodies, any persons with interests in the affected land, and communities;
 - preparation of a consultation report; and
 - submission of the application documentation to the Planning Inspectorate.
32. The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009⁹ also sets out various matters relating to statutory consultation¹⁰.

⁹ <https://www.legislation.gov.uk/uksi/2009/2264/contents/made> - Note this is the original set of Regulations which has been amended by subsequent Regulations

¹⁰ Statutory consultees include bodies such as the NCC Highway Authority, Highways England, Natural England, HSE, Historic England, Police Authority, Historic England, Internal Drainage Board and Statutory Undertakers (i.e. utility companies). Section 47 of the Planning Act sets out the applicant's statutory duty to consult local communities.

33. During the pre-application stage an applicant must do a number of things including:

- notify the Planning Inspectorate acting on behalf of the Secretary of State of the proposed application on or before commencing statutorily required consultation under section 46 of the Planning Act, principally with statutory bodies, local authorities and persons with interests in the land;
- prepare a statement in consultation with the relevant local authority or authorities, commonly termed the Statement of Community Consultation (SoCC), which describes how the applicant proposes to consult the local community about their project and then carry out consultation in accordance with that statement, as required by section 47 of the Planning Act and Regulation 12 of the EIA Regulations 2017;
- make the SoCC available for inspection by the public in a way that is reasonably convenient for people living in the vicinity of the land where the development is proposed, publishing the statement and a newspaper notice stating where and when the statement can be inspected, as required by section 47 of the Planning Act;
- identify and consult statutory consultees, local authorities and all persons with land interests as required by section 42 of the Planning Act and Regulation 3 and Schedule 1 to the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (the APFP Regulations 2009);
- set a deadline for consultation responses required by section 42 of the Planning Act of not less than 28 days from the day after receipt of the consultation documents as required by section 45 of the Planning Act;
- publicise the proposed application in accordance with section 48 of the Planning Act, Regulation 13 of the EIA Regulations 2017 and Regulation 4 of the APFP Regulations 2009;
- have regard to relevant responses to publicity and consultation required by section 49 of the Planning Act;
- prepare a consultation report showing how the applicant has met the consultation requirements of sections 42, 47 and 48 of the Planning Act and how the proposed application has been amended to take account of the relevant responses;
- meet the requirements of section 37 of the Planning Act by submitting this consultation report to the Planning Inspectorate acting on behalf of the Secretary of State with the

Government guidance advises that *“in addition, applicants will want to consider the issues that may need to be addressed ahead of submission and may also wish to seek the views of other people who are not statutory consultees, but who may be significantly affected by the project.”* This might include for example local organisations such as the Nottinghamshire wildlife Trust

application for development consent for consideration in the decision whether the application is accepted for examination; and

- have regard to the Government guidance¹¹ as required by section 50 of the Planning Act.

34. Parish Councils only tend to meet on a monthly basis, they have limited resources and as such their Clerks do not have large amounts of time available to read, digest and advise their Councils on consultation documents received. The consultation period has only included 30 working days which has been challenging for Parish Councils to commission professional assistance. Whilst it is noted that in sections 42 and 45 of the Planning Act 2008 there is a minimum period of 28 days for this consultation, a statutory minimum doesn't equate to that being adequate. Exceeding the statutory minimum period does not equate to consultation being adequate either.

35. Timing of consultation has practical implications, for example many Parish, Village or Community Magazines/Newsletters have lead-in times of several weeks and are typically not published in January because of the Christmas and New Year period. As such the choice of consultation across the months of January and February is unhelpful to allow Parish Councils and Parish Meetings to publicise the proposal locally.

36. JPAG notes that the guidance¹² (Reference ID 02-004-20240430) describes the pre-application process as:

“The NSIP consenting process is intended to be front-loaded. The pre-application stage is therefore critical and should be used to ensure project proposals are prepared in line with applicable National Policy Statements (NPS) designated under Part 2 of the Planning Act. Relevant legislation and policies should also be taken into consideration where applicable to the proposed project. The pre-application stage should allow the likely effects of a project to be fully consulted upon, with the design of the project evolving up to the point of application submission.

The overriding objective of this guidance is to encourage a pre-application process which is effective and proportionate to the nature of the proposed project. This must ensure that the legal requirements of the Planning Act and the EIA Regulations 2017 are met,

¹¹ The National Infrastructure Planning Guidance Portal was introduced as part of the government's recent reforms to the NSIP system at <https://www.gov.uk/government/collections/national-infrastructure-planning-guidance-portal>

¹² <https://www.gov.uk/guidance/planning-act-2008-pre-application-stage-for-nationally-significant-infrastructure-projects>

particularly involving consultation stages and the early consideration of alternatives. At the same time, pre-application processes should not be unnecessarily time-consuming and burdensome for the applicant, consultees and communities affected by the proposal.”

37. The guidance (Reference ID 002-019-20240430) goes on to advise:

“Effective pre-application consultation is key to developing well-prepared applications that are understood by the public. Consultation on development proposals allows consultees and local communities to influence how infrastructure that meets a national need can be accommodated in their area, and enables applicants to more effectively shape proposals.”

38. The guidance (Reference ID 02-020-20240430) continues to clearly advise:

*“The pre-application consultation undertaken should be proportionate to the scale and nature of the project and its effects. A ‘one-size-fits-all’ approach is not appropriate...
...Larger, more complex applications are likely to warrant going beyond the statutory 28-day minimum timescales for consultation laid down in the Planning Act to ensure enough time for consultees to understand project proposals and formulate a response.
The timing and duration of consultation will be likely to vary from project to project, depending on size and complexity, and the range and scale of the effects. Applicants should therefore set consultation deadlines that are realistic and proportionate to the proposed project.”*

39. Early engagement with parish and town councils is specifically advised by the guidance (Reference ID 02-022-20240430) to help applicants to ensure they find the best approach to engage the relevant communities in the most effective and proportionate way. It is therefore disappointing that the applicant did not seek to engage with the Parish Councils over the timing and duration of the consultation period.

40. There is no statutory maximum period for pre-application consultation and a substantially longer period should have been used for this project given the scale and nature of the project. The consultation undertaken is not considered to have been adequate.

Inaccuracies, Inconsistencies and Anomalies in Consultation Documents

Mitigation or Enhancement

41. In the various documents published there is a lack of clarity over whether measures such as planting constitute mitigation or enhancement. The applicant in different documents

refers for example to the planting of 50,000 trees as being mitigation whilst in others it refers to the planting of 50,000 trees as being enhancement.

42. Having clarity over the specific purpose as to whether measures are mitigation or enhancement is fundamental to achieving clarity over whether or not they constitute a benefit to be considered in the overall planning balance.
43. As has been identified by decision makers¹³ in solar schemes, the benefits of any scheme are largely national/international whilst the impacts are felt at the local level. As such clarity as to whether aspects are mitigation or enhancement is important to allow local residents to have an informed understanding of the scheme.

Electricity Generation and Carbon Avoidance

44. JPAG notes the technical calculations undertaken by Norwell & Norwell Woodhouse Parish Council in relation to the overestimation of the potential electricity generation and the consequential number of properties that could be provided with electricity. Together with the overestimation of the carbon avoidance in the calculations. JPAG share the concern that these anomalies seek to significantly overstate the perceived benefits arising from the project which are misleading and again impact on the adequacy of consultation.
45. Both the figures for the number of properties that could be provided with electricity and the estimation of carbon avoidance have been used in the statutory notices published under s47 of the Planning Act 2008 (SoCC) and s48 of the Planning Act 2008 (Pre-Application). They have also been heavily utilised as headlines in the consultation material used by the applicant at the consultation events with the local community.
46. JPAG are not experts in the field of greenhouse gas emissions (GHG), but notes that the GHG Protocol classifies a company's emissions into 3 scopes:
 - Scope 1 emissions are the direct emissions from owned or controlled sources
 - Scope 2 emissions are the indirect emissions from the generation of purchased energy
 - Scope 3 emissions are all indirect emissions, not included in Scope 2, that occur in the value chain of the reporting company
47. The calculations suggest a substantial carbon avoidance from the BESS element of the scheme, it is not clear how this is calculated because the BESS will not in itself produce

¹³ The Planning Inspector in the Butchers Lane, Aughton Solar Farm appeal (APP/P2365/W/15/3002667)

electricity. If it stores electricity produced from renewable sources then that carbon avoidance will have already been accounted for in its initial production and care is needed to avoid double counting. If the BESS stores electricity from that produced from non-renewable sources, then JPAG would query whether the scope 3 emissions of that non-renewable electricity from fossil fuels has been fully accounted for.

48. The project links to the Staythorpe grid connection and consequentially to the Staythorpe Power Station. That is a gas power station and as such the consideration of scope 3 emissions being considered as indirect environmental effects that must be included in an EIA, as prescribed in the Supreme Court case of *R (on the application of Finch on behalf of the Weald Action Group) v Surrey County Council* [2024].

Transport

49. JPAG notes that the response from Norwell & Norwell Woodhouse Parish Council highlights various errors in relation to the transport documents with regard to speed limits, environmental weight limits, construction traffic routing and heavy loads. It is concerning that such basic information is incorrectly stated and suggests that too much reliance has been placed on desk-top studies and tools such as Google Streetview rather than consultants actually visiting every part of the 18,119.9ha over which the Development extends in area.
50. As an example, the incorrect statement of the 40mph speed limit on the B6325 as it passes through South Muskham can only come from viewing Google Streetview (which dates from 2009) because the speed limit was reduced to 30mph by an Order in 2016; so, anybody actually visiting the study area for this project in the last 9 years would clearly have seen the 30mph speed limit in place.

NPPF

51. There are various references to the National Planning Policy Framework (NPPF) in the various documents published as part of the consultation and quotes refer to certain paragraph numbers. Unfortunately, the applicant appears to have failed to go through a programme to update all documents to ensure that they correctly referred to the December 2024 version of the NPPF before the consultation. Whilst it is understood that the timing between the latest NPPF being published and consultation commencing was short, the applicant has substantial professional consultancy resource at their disposal and a programme of updating could have been achieved in that timeframe.

Inconsistencies

52. The PEIR identifies three phases as: Construction Phase (2027 - 2029); Operational Phase (2029 - 2069); and Decommissioning Phase (2069 - 2070). However, in terms of lifetime it describes the operational life of the Development is expected to be 40 years with the 40 years starting when full operation (maximum electrical export) is first achieved. The PEIR says this would be limited to a maximum of three years (36 months) from when electricity is first exported from the Development. This allows for phasing of commissioning, whilst also limiting the duration of the phasing. This appears to be inconsistent as if connection wouldn't be until 2029, then if maximum electrical export takes 3 years until 2032; then the stated 40 years post maximum electrical export would mean the operational phase could go through to 2072.
53. There is a fundamental inconsistency in the amount of land area to be covered by solar PV. In the description of development in the Design Approach Document¹⁴ which is one of the PEIR Technical Appendices, it says 1,500ha of the 2,900ha of land will be used for solar PV. However, in the PEIR document itself, in the context of illustrative design¹⁵ it says there will be 545ha of solar PV modules, and the PEIR sets a design limitation of up to 700ha of solar PV modules.
54. This is a fundamental difference between these two documents, with the Design Approach Document suggesting an area of solar PV almost three times as large as the PEIR says it has based the actual assessment of impacts on. This suggests that the PEIR has substantially under considered the environmental effects.
55. How such wildly different figures can be included in documents demonstrates a fundamental lack of attention to detail on the part of the applicant, and undermines any conclusions that any of the documents actually put forward.

Anomalies

56. For EIA, the zones of influence under the heading of Traffic and Transport includes three key A road corridors being the A617, the A616 and the A1 (part of the Strategic Road Network). However, the key A road corridor of the A46 has not been assessed, that road is part of the Strategic Road Network and as the DCO for the Newark bypass is to be scoped

¹⁴ Paragraph 40 in section 4.1.1 on page 25

¹⁵ Table 5.2 Solar PV Modules Design Parameters on page 13 of Chapter 5 – Development Description of the PEIR

in for cumulative impacts it seems illogical not to consider the A46 corridor for traffic and transport.

57. On the issue of Traffic and Transport a list of settlements as sensitive receptors have been identified. Those listed are: Averham, Little Carlton, Maplebeck and Moorhouse, Bathley, North Muskham, Norwell, Caunton, Cromwell, Kelham, Ossington and Kneesall. This list appears incomplete and should also include: Staythorpe, South Muskham, Carlton on Trent, Sutton on Trent, Tuxford, Weston, Hockerton, Averham Park and Norwell Woodhouse.
58. On the topic of Recreation, the PEIR refers to two Angling Clubs (Stillwater, Cromwell and Nottingham Piscatorial at Muskham Lakes) within the Recreation Study Area which are to be considered in this assessment. However, there is a further recreational fishery namely Cromwell Lake Fishery which also needs to be considered. Each are popular and recognised clubs providing high recreational amenity to the surrounding area.

Clarifications and Omissions

59. The setting of only 13 designated heritage assets were identified as being potentially sensitive receptors to the Development and have been scoped into the PEIR chapter for further assessment. This is a much lower list than the 267 designated assets identified within the 2km inner study area, no clear explanation as to why this is the case has been provided. The PEIR identifies that the Order Limits go into the Caunton Conservation Area and no reasoning/rationale as to why that designated heritage asset has been scoped out is provided.
60. Reference to properties which are listed buildings should include the current used names, not just the name on the statutory list to aid public understanding. Over the time period since which some of the listed buildings were first listed, actually property names have been changed. Also, as the area is so extensive the settlement location should also be used in addition to any property name throughout the documentation to avoid any misunderstanding between properties of the same name in different settlements.
61. An explanation is also needed as to why are there 29 noise sensitive receptors (NSRs) impacted by noise from the cable routes but only 19 of these will be impacted by vibration.
62. Public concern relating to Battery malfunction should be assessed and be scoped in to the ES under the heading of Public Health. In *West Midlands Probation Committee v Secretary*

of State for the Environment and Walsall Metropolitan Borough Council [1998] the court held that fear or apprehension could be a material consideration. In this case, it was found that the occupation of a probation hostel had led to incidents which had given rise to public concern, apprehension or fear of crime.

63. In *Newport County Borough Council v Secretary of State for Wales [1998]*, it was held that the decision-maker might take into account genuine concerns over public safety, even when not supported by technical evidence. The genuinely held fear and apprehension that the BESS elements cannot be safely operated so close to residential dwellings must be taken into account as a material planning consideration and be weighed in the balance of factors against the DCO application.
64. The Secretary of State in reaching a decision on appeal APP/A0665/W/18/3207952 in Ellesmere Port on the 7 June 2022 concluded that stress and anxiety and their impact on well-being can be a relevant material planning consideration.
65. The Inspector Brian Cook BA (Hons) DipTP MRTPI in his report identified that stress and anxiety are recognised as factors affecting an individual's mental health. He suggested that this could be distilled to three questions. First, why has the appeal proposal given rise to stress in the local community, second, is it justified and, third, would there be an actual rather than a perceived health and well-being impact?
66. In this case the GNR proposal has given rise to stress in the local community arising from concern over the massive industrial scale of the proposal; the inclusion of BESS aspects; the lack of information and incorrect information contained in the consultation documents; the incidents that have taken place involving BESS; the suggested impact of vibration and noise; likely damage resulting from HGVs; inevitable pedestrian and vehicular conflict including in areas where past conflict has resulted in fatalities; the circular enveloping nature of the Order Limits; and the likelihood of increased surface water run-off from slopes in excess of 6% into river catchments that have a recent severe impact of flooding homes and businesses.
67. Clarity about the Staythorpe BESS that has now been incorporated into the Order Limits is required. It is accepted that has been granted planning permission on appeal, but is not shown as part of the GNR project yet it is included in the Order Limits boundary and as

Elements Green now own the company that obtained the planning permission it will inevitably form part of the overall GNR project.

Legal Framework and Planning Considerations from National Policy Statements

68. The legal framework for the NSIP process is set out in the Planning Act 2008 (as amended). In addition to the Planning Act 2008, other legislation relating to the procedures are set out in various bits of secondary legislation, which currently include:

- The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)
- The Infrastructure Planning (Compulsory Acquisition) Regulations 2010 (as amended)
- The Infrastructure Planning (Examination Procedure) Rules 2010 (as amended)
- The Infrastructure Planning (Decisions) Regulations 2010 (as amended)
- The Infrastructure Planning (Fees) Regulations 2010 (as amended)
- The Infrastructure Planning (Changes to, and Revocation of, Development Consent Orders) Regulations 2011 (as amended)
- The Infrastructure Planning (Business or Commercial Projects) Regulations 2013
- The Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015 (as amended)

69. In addition, there are other provisions relating to Environmental Impact Assessment and Habitats Regulations that apply:

- The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)
- The Conservation of Habitats and Species Regulations 2017 (as amended)

70. National Policy Statements are produced by government. They give reasons for the policy set out in the statement and must include an explanation of how the policy takes account of government policy relating to the mitigation of, and adaptation to, climate change.

71. They comprise the government's objectives for the development of nationally significant infrastructure in a particular sector and state, including:

- how this will contribute to sustainable development
- how these objectives have been integrated with other government policies
- how actual and projected capacity and demand have been taken into account

- consideration of relevant issues in relation to safety or technology
- circumstances where it would be particularly important to address the adverse impacts of development
- specific locations, where appropriate, in order to provide a clear framework for investment and planning decisions
- They also include any other policies or circumstances that ministers consider should be taken into account in decisions on infrastructure development.

72. National Policy Statements have undergone a process of public consultation and parliamentary scrutiny before being designated (published). They provide the framework within which Examining Authorities make their recommendations to the Secretary of State.

73. In considering how to respond, JPAG acknowledges that National Policy Statements provide the framework within which Examining Authorities make their recommendations to the Secretary of State. There are 12 designated National Policy Statements (NPS), setting out government policy on different types of national infrastructure development, those which are relevant to a Solar Energy NSIP:

- Overarching NPS for energy (EN-1)
- NPS for renewable energy infrastructure (EN-3)
- *[NPS for electricity networks infrastructure (EN-5) if it includes grid infrastructure]*

74. Section 104 of the Planning Act 2008¹⁶ sets out what the Secretary of State must have regard to in making his or her decision where a relevant NPS is designated. This includes any matter that the Secretary of State thinks is important and relevant to the Secretary of State's decision. It also sets out that whether the adverse impact of the proposed development would outweigh its benefits is a relevant consideration.

75. Under NPS EN-1 the relevant matters that are relevant to the consideration of the proposed development are:

- | | |
|-----|---|
| 2 | Government policy on energy and energy infrastructure development _____ |
| 2.1 | Introduction _____ |
| 2.2 | Net zero by 2050 _____ |
| 2.3 | Meeting net zero _____ |
| 2.4 | Decarbonising the power sector _____ |

¹⁶ <https://www.legislation.gov.uk/ukpga/2008/29/section/104>

- 2.5 Security of energy supplies _____
- 2.6 Sustainable development _____
- 3 The need for new nationally significant energy infrastructure projects _____
- 4 Assessment Principles _____
 - 4.1 General Policies and Considerations _____
 - 4.2 Environmental Principles _____
 - 4.3 Health _____
 - 4.4 Marine Considerations _____
 - 4.5 Environmental and Biodiversity Net Gain _____
 - 4.6 Criteria for “Good Design” for Energy Infrastructure _____
 - 4.7 Consideration of Combined Heat and Power (CHP) _____
 - 4.8 Carbon Capture and Storage (CCS) _____
 - 4.9 Climate Change Adaptation _____
 - 4.10 Network Connection _____
 - 4.11 Pollution Control and Other Environmental Regulatory Regimes _____
 - 4.12 Safety _____
 - 4.13 Hazardous Substances _____
 - 4.14 Common Law Nuisance and Statutory Nuisance _____
 - 4.15 Security Considerations _____
- 5 Generic Impacts _____
 - 5.1 Introduction _____
 - 5.2 Air Quality and Emissions _____
 - 5.3 Greenhouse Gas Emissions _____
 - 5.4 Biodiversity and Geological Conservation _____
 - 5.5 Civil and Military Aviation and Defence Interests _____
 - 5.6 Coastal Change _____
 - 5.7 Dust, Odour, Artificial Light, Smoke, Steam, and Insect Infestation _____
 - 5.8 Flood Risk _____
 - 5.9 Historic Environment _____
 - 5.10 Landscape and Visual _____
 - 5.11 Land Use, Including Open Space, Green Infrastructure, and Green Belt _____
 - 5.12 Noise and Vibration _____
 - 5.13 Socio-Economic Impacts _____
 - 5.14 Traffic and Transport _____
 - 5.15 Resource and Waste Management _____
 - 5.16 Water Quality and Resources _____

76. Under NPS EN-3 the additional relevant matters that are relevant to the consideration of the proposed development are:

- 1.7 Appraisal of Sustainability and Habitats Regulation Assessment _____
- 2.1 General Assessment and Technology Specific Information _____
- 2.2 Relationship with English and Welsh renewables policies _____
- 2.3 Factors influencing site selection and design _____
- 2.4 Climate change adaptation and resilience _____
- 2.5 Consideration of good design for energy infrastructure _____
- 2.6 Flexibility in the project details _____

And in relation to Solar Photovoltaic Proposals specifically:

- Irradiance and site topography
- Network connection
- Proximity of a site to dwellings
- Agriculture land classification and land type
- Accessibility
- Public rights of ways
- Security and lighting
- Capacity of a site
- Site layout design, and appearance
- Project lifetime
- Decommissioning
- Flexibility in the project details
- Biodiversity, ecological, geological conservation and water management impacts
- Landscape, visual and residential amenity impacts
- Glint and glare
- Cultural Heritage
- Construction impacts including traffic and transport noise and vibration

Planning Considerations from Written Ministerial Statement

77. JPAG has also had due regard to the Written Ministerial Statement¹⁷ (WMS) that sets out the following matters as relevant planning considerations for Solar Energy proposals:

- Food Security
- Protecting the Best and Most Versatile Agricultural Land
- Cumulative Impacts

¹⁷ Solar and protecting our Food Security and Best and Most Versatile (BMV) Land (15 May 2024)

Environmental Impact Assessment Scoping Considerations

78. JPAG is aware that on the 19th December 2023 an EIA Scoping Opinion was adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

3.	ENVIRONMENTAL ASPECT COMMENTS
3.1	Landscape and Visual
3.2	Ecology, Ornithology and Biodiversity
3.3	Hydrology, Hydrogeology, Flood Risk and Ground Conditions
3.4	Cultural Heritage and Archaeology
3.5	Noise (and vibration)
3.6	Socioeconomics, Tourism, Recreation and Land Use
3.7	Traffic and Access.....
3.8	Climate Change.....
3.9	Glint and Glare.....
3.10	Human Health.....
3.11	Telecommunications, Television Reception and Utilities.....
3.12	Waste.....
3.13	Air Quality.....
3.14	Major Accidents and Disasters
3.15	Inter relationships

79. The scoping opinion above sets out the content that the Environmental Statement that must accompany the application will need to address.

Guidance and Advice

80. The This National Infrastructure Planning Guidance Portal¹⁸ has been introduced as part of the government’s recent reforms to the NSIP system.
81. The National Infrastructure Planning Guidance Portal is coordinated by the Ministry of Housing, Communities and Local Government (MHCLG)¹⁹ as a central source for all users who wish to find guidance on all aspects of the NSIP system from pre-application through to post-consent changes, and a range of related matters.
82. There is guidance on the Portal relating to each stage in the process. The National Infrastructure Planning Guidance is non-statutory except where it applies to the pre-

¹⁸ <https://www.gov.uk/government/collections/national-infrastructure-planning-guidance-portal>

¹⁹ The Planning Inspectorate is an Executive Agency of MHCLG

application stage and to cost recovery by certain public authorities. In these instances, guidance is statutory pursuant to:

- section 50 of the Planning Act 2008 and prospective applicants must have regard to it; and
- section 54A of the Planning Act 2008 and prescribed public authorities must have regard to it.

83. The extent to which an applicant has had regard to section 50 guidance will be taken into account by the Planning Inspectorate when deciding whether to accept an application for examination.

84. The guidance is a comprehensive guide to the operation of the NSIP consenting process under the Planning Act 2008 but should always be read alongside the relevant legislation.

The Development Plan and Supplementary Planning Documents

85. The adopted Development Plan and Supplementary Planning Documents which are relevant to the determination of this application are:

- Newark and Sherwood Amended Core Strategy
- Newark and Sherwood Allocations & Development Management DPD
- Nottinghamshire Minerals Local Plan
- Nottinghamshire Waste Local Plan
- Newark & Sherwood Landscape Character Assessment SPD
- Newark & Sherwood Solar Energy SPD

86. The Newark and Sherwood Amended Allocations & Development Management DPD is currently at examination and given its advanced stage can be afforded weight in the determination of the DCO application.

Material Planning Considerations

87. Other relevant national material planning considerations include:

- National Planning Policy Framework
- Planning Practice Guidance
- National Flood Risk Assessment (NaFRA)

88. The Court of Appeal judgment in *Mead Realisations Ltd v Secretary of State for Housing, Communities and Local Government* [2025] confirmed that there was no legal principle

that prevents national policy in the NPPF being amended, or altered, by the PPG. The Court explained that the legal status of the NPPF and the PPG is essentially the same; no legal distinction exists between them. Both are statements of national policy issued by the Secretary of State exercising his general power to do so as minister with overall responsibility for the planning system.

89. They have somewhat different purposes: the NPPF *“is a comprehensive framework of national planning policy, in which the Government sets out its general policies for planning decision-taking and plan preparation”*, whereas the PPG *“is national guidance for planning practice, which can reinforce that framework”* [paragraph 34 of judgement]. It is not right, however, to describe the PPG as being, in a legal sense, wholly subservient or subordinate to the NPPF in a hierarchy of national planning policy. Policies in the NPPF and guidance in the PPG may be used as an aid to interpretation of each other. The publication of the PPG does not need to be contemporaneous with the NPPF in order to explain its intention. Together the NPPF and PPG *“form a mature body of planning policy and guidance”* [paragraph 34 of judgement].

90. Other local relevant material planning considerations include:

- The Rights of Way Management Plan for Nottinghamshire
- Eakring Conservation Area Character Appraisal²⁰
- Laxton Conservation Area Character Appraisal
- Newark & Sherwood Non-Designated Heritage Assets: Criteria
- The Nottinghamshire local biodiversity action plan
- Newark & Sherwood Strategic Flood Risk Assessment

Scale of Development

91. The scale of GNR is disproportionate to host communities. The Development extends across an area of 18,119.9ha, of which 2,899.7ha, is encompassed within the Order Limits. The majority of the land within the Order Limits is currently used for arable crops or is otherwise down to pasture.

92. The applicant describes in the PEIR: *“The Development essentially consists of discrete land parcels proposed to be occupied by solar PV panels, connected by cable route areas, arranged broadly in a ring. The eastern side of the ring runs north from Staythorpe Power*

²⁰ Note - There are no published Conservation Area Character Appraisals for the Maplebeck Conservation Area; Cauntun Conservation Area; Kersall Conservation Area; or Kelham Conservation Area

Station to Egmonton in the north. The western side of the loop runs north-west from Staythorpe Power Station and then splits at Maplebeck, with spurs running to Eakring in the north-west and Kneesall to the north-northeast, eventually connecting with the eastern side of the ring.”

93. The GNR project includes land within or immediately abuts a total of 22 Parishes, namely: Averham, Bathley, Carlton on Trent, Caunton, Cromwell, Eakring, Egmonton, Hockerton, Kelham, Kersall, Kneesall, Laxton & Moorhouse, Maplebeck, North Muskham, Norwell & Norwell Woodhouse, Ossington, South Muskham & Little Carlton, Staythorpe, Sutton on Trent, Upton, Weston, and Winkburn.
94. In the context of Newark & Sherwood District which has a total of 84 Parishes, GNR impacts on more than a quarter of the Parishes in the entire District. By contrast, the One Earth Solar Farm, which is the nearest other DCO solar project is within or immediately abuts 10 Parishes.
95. The circular nature of the GNR scheme encircles entire communities across the area of 18,119.8ha that the Development extends across. As such the impact of GNR extends across a much greater area than a solar farm such which is more concentrated. This impact is particularly increased by other solar farms and BESS projects, existing and proposed that effectively fill in some of the gaps within the GNR circle.
96. In terms of an explanation of the scale of GNR we have undertaken analysis as follows:

GNR Development Extends Across

97. The Great North Road Solar Project²¹ development extends across an area as follows:
- 18,119.9 hectares
 - 44,775.2 acres
 - 181.2 square kilometres
 - 70.0 square miles

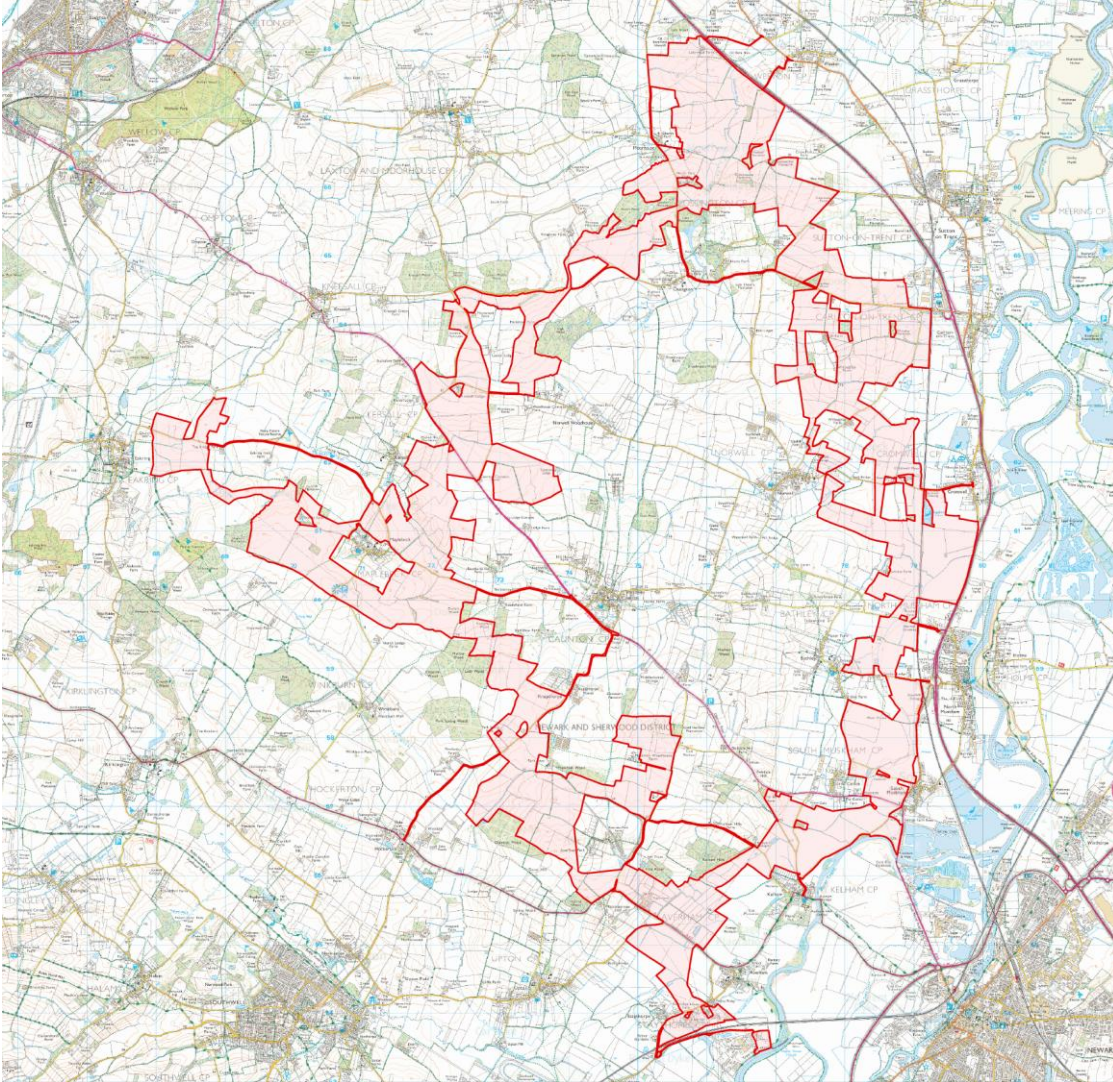
GNR Order Limits

98. The area to be covered by the Great North Road Solar Project²² is as follows:
- 2,899.7 hectares

²¹ Data specified in the PEIR

²² Data specified in the PEIR

- 7,165.3 acres
- 28.9 square kilometres
- 11.2 square miles



Extract From Site Location Figure 1.1 of the PEIR © Elements Green Trent Ltd

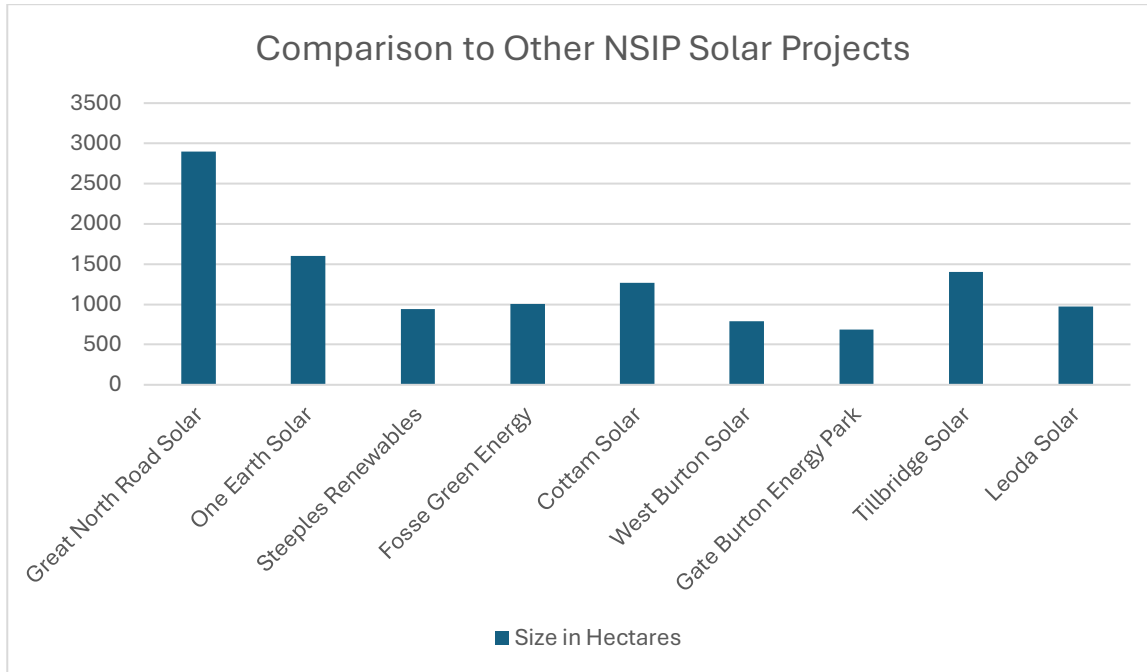
Comparison to Other NSIP Solar Projects

99. Other NSIP Solar Projects²³ include:

- One Earth Solar (Newark & Sherwood/Bassetlaw/West Lindsey) - 1,600 hectares
- Steeples Renewables (Bassetlaw) - 944 hectares
- Fosse Green Energy (North Kesteven) - 1,003 hectares
- Cottam Solar (West Lindsey/Bassetlaw) - 1,270 hectares
- West Burton Solar (West Lindsey/Bassetlaw) - 788 hectares

²³ Areas are taken from the various project websites (accessed July 2024 or February 2025)

- Gate Burton Energy Park Solar (West Lindsey/Bassetlaw) - 684 hectares
- Tillbridge Solar (West Lindsey/Bassetlaw) - 1,400 hectares
- Leoda Solar (North Kesteven) - 971 hectares



100. In terms of a comparison of Other NSIP Solar Projects to Great North Road Solar:

- One Earth Solar at 1,600 hectares is 55.17% the size of Great North Road
- Steeples Renewables at 944 hectares is 32.55% the size of Great North Road
- Fosse Green Energy at 1,003 hectares is 34.86% the size of Great North Road
- Cottam Solar at 1,270 hectares is 43.79% the size of Great North Road
- West Burton Solar at 788 hectares is 27.17% the size of Great North Road
- Gate Burton Energy Park Solar at 684 hectares is 23.59% the size of Great North Road
- Tillbridge Solar at 1,400 hectares is 48.28% the size of Great North Road
- Leoda Solar at 971 hectares is 33.48% the size of Great North Road

Comparison to Other Major Sites That May Be Familiar to Local Residents

101. Other Major Sites That May Be Familiar to Local Residents Include:

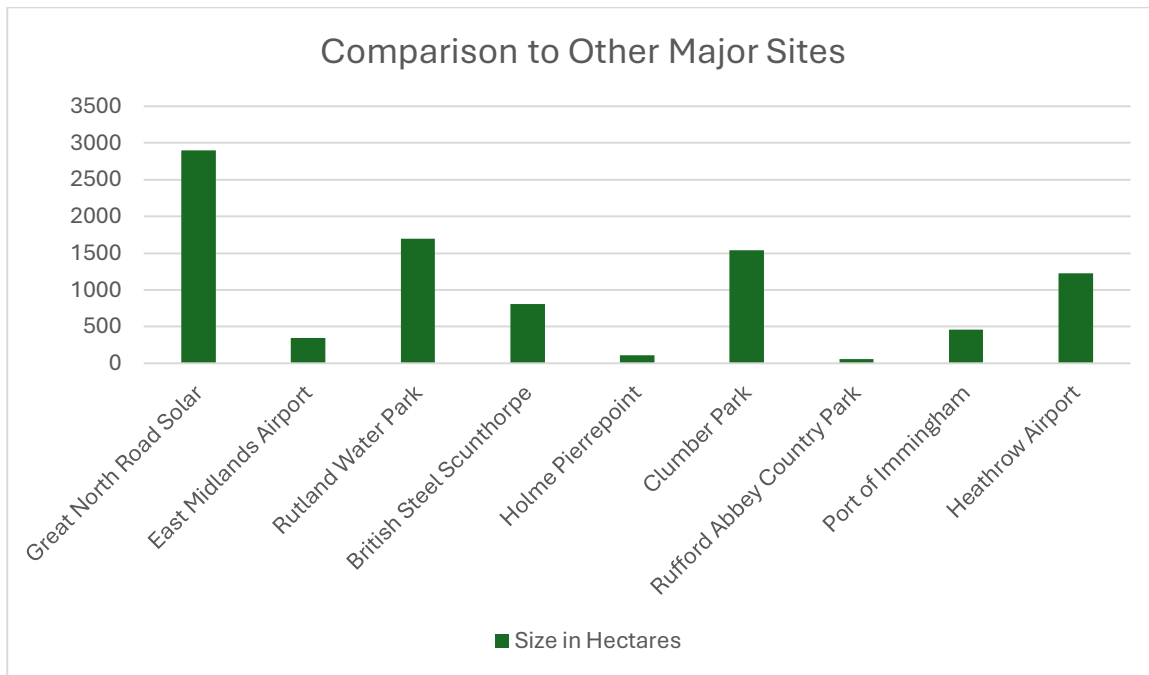
- East Midlands Airport²⁴ - 349 hectares
- Rutland Water²⁵ - 1,699 hectares
- British Steel Scunthorpe²⁶ - 809 hectares

²⁴ Data published by East Midlands Airport 3.49 square kilometres

²⁵ Data from Anglian Water 4,200 acres, this includes the surrounding countryside in the Rutland Water Park

²⁶ Data from British Steel 2,000 acres

- Holme Pierrepont Country Park & National Watersports Centre²⁷ - 109 hectares
- Clumber Park²⁸ - 1,537 hectares
- Rufford Abbey Country Park²⁹ - 61 hectares
- Port of Immingham³⁰ - 458 hectares
- Heathrow Airport³¹ - 1,227 hectares



102. In terms of a comparison of Other Major Sites That May Be Familiar to Local Residents:

- Great North Road Solar is 8.31 times the size of East Midlands Airport
- Great North Road Solar is 1.71 times the size of Rutland Water
- Great North Road Solar is 3.58 times the size of British Steel Scunthorpe
- Great North Road Solar is 26.61 times the size of Holme Pierrepont Country Park & National Watersports Centre
- Great North Road Solar is 1.87 times the size of Clumber Park
- Great North Road Solar is 47.54 times the size of Rufford Abbey Country Park
- Great North Road Solar is 6.33 times the size of Port of Immingham
- Great North Road Solar is 2.36 times the size of Heathrow Airport

²⁷ Data from Holme Pierrepont Country Park 270 acres

²⁸ Data from National Trust 3,800 acres

²⁹ Data from NCC 150 acres

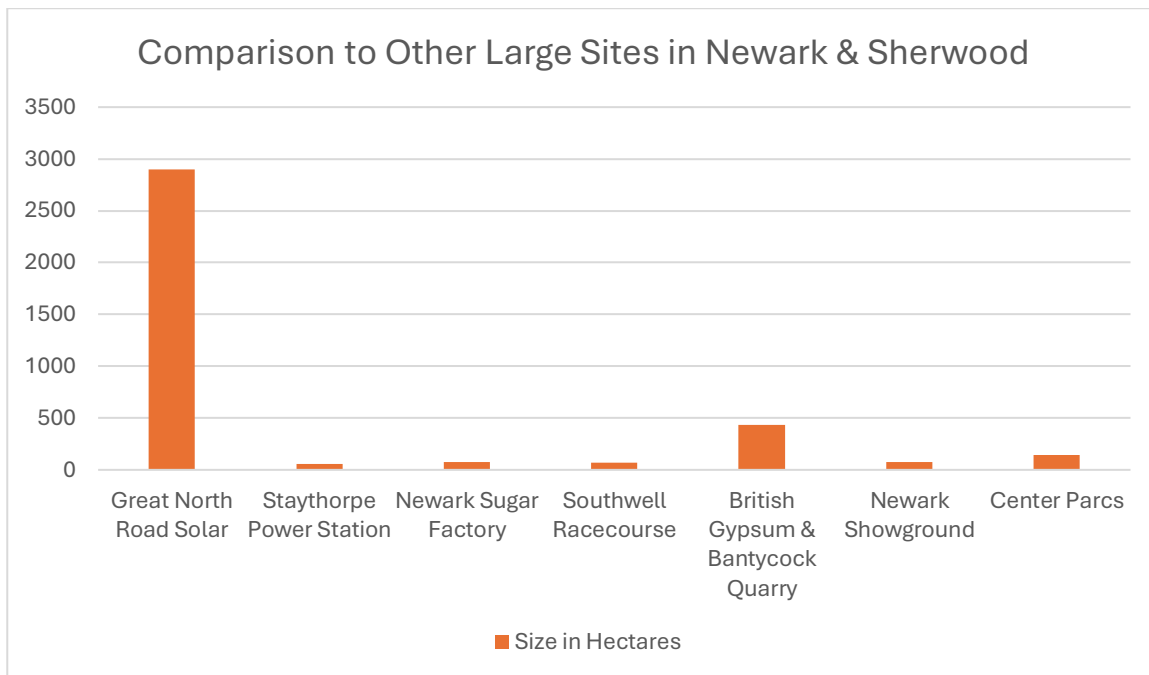
³⁰ Data from Associated British Ports 1,133 acres

³¹ Data from Heathrow.com

Comparison to Other Large Sites in Newark & Sherwood

103. Other Large Sites in Newark & Sherwood³² include:

- Staythorpe Power Station - 57 hectares
- Newark Sugar Factory - 78 hectares
- Southwell Racecourse - 71 hectares
- British Gypsum & Bantymock Quarry - 432 hectares
- Newark Showground - 77 hectares
- Center Parcs - 142 hectares



104. In comparison to Other Large Sites in Newark & Sherwood to Great North Road Solar:

- Great North Road Solar is 50.88 times the size of Staythorpe Power Station
- Great North Road Solar is 37.18 times the size of Newark Sugar Factory
- Great North Road Solar is 40.85 times the size of Southwell Racecourse
- Great North Road Solar is 6.71 times the size of British Gypsum & Bantymock Quarry
- Great North Road Solar is 37.66 times the size of Newark Showground
- Great North Road Solar is 20.42 times the size of Center Parcs

Comparison to Built-up Areas in Newark & Sherwood

105. The built-up area of the main settlements³³ in Newark & Sherwood are:

³² Measured on Nottinghamshire Insight Mapping

³³ The settlements with the status of a Town with the addition of Balderton and Fernwood into the Newark Urban Area as the Newark & Sherwood Amended Core strategy defines the Newark Urban Area as including them

The town of Southwell³⁴ is:

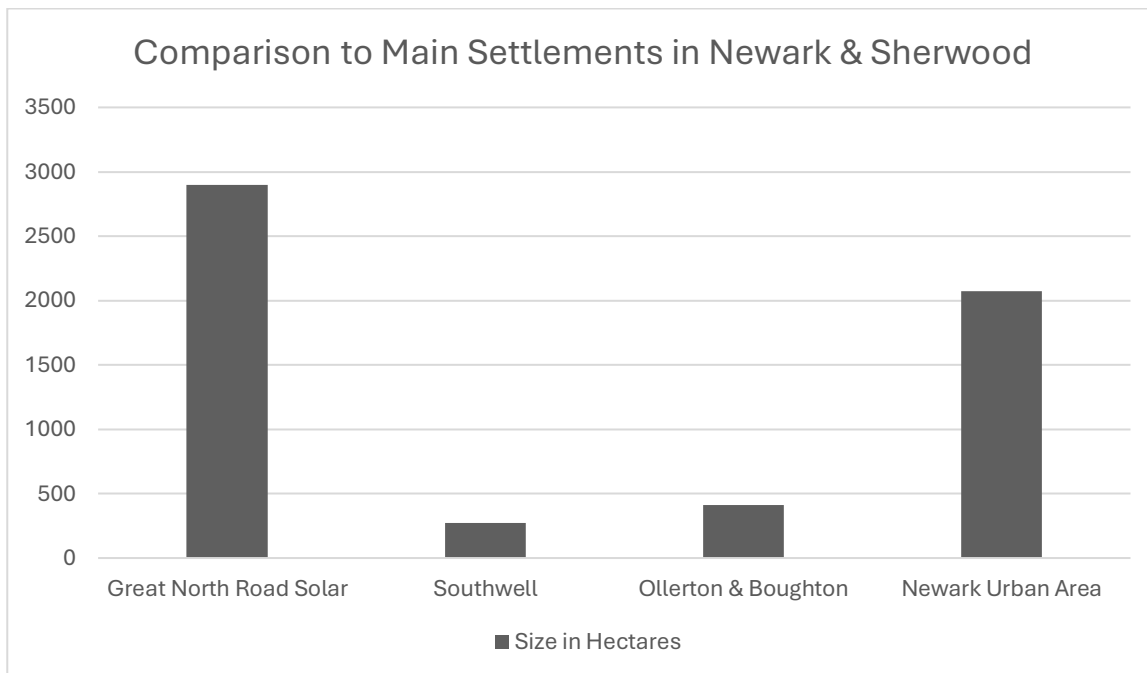
- 274 hectares
- 677 acres
- 2.74 square kilometres
- 1.06 square miles

The town of Ollerton & Boughton (including Boughton Industrial Estate)³⁵ is:

- 413 hectares
- 1,020 acres
- 4.13 square kilometres
- 1.59 square miles

The Newark Urban Area (includes Newark, Balderton & Fernwood and the Planned Urban Extensions of Land South of Newark, Land East of Newark & Land Around Fernwood)³⁶ is:

- 2,073 hectares
- 5,122 acres
- 20.73 square kilometres
- 8.00 square miles



³⁴ Measured on Nottinghamshire Insight Mapping

³⁵ Measured on Nottinghamshire Insight Mapping

³⁶ Measured on Nottinghamshire Insight Mapping

106. By way of comparison to the Main Settlements in Newark & Sherwood:

- Great North Road Solar is 10.58 times the size of the built-up area of the Town of Southwell
- Great North Road Solar is 7.02 times the size of the built-up area of the Town of Ollerton & Boughton (including Boughton Industrial Estate)
- Great North Road Solar is 1.40 times the size of the built-up area of the Newark Urban Area (which includes Newark, Balderton & Fernwood and the Planned Urban Extensions of Land South of Newark, Land East of Newark & Land Around Fernwood)
- Great North Road Solar at 2,900 hectares is 1.05 times large than the combined 2,760 hectares built-up size of the Town of Southwell, the Town of Ollerton & Boughton (including Boughton Industrial Estate) and the Newark Urban Area (which includes Newark, Balderton & Fernwood and the Planned Urban Extensions of Land South of Newark, Land East of Newark & Land Around Fernwood)

Zones of Influence

107. The circular nature of the GNR project represents an unusual and potentially unique set of circumstances where impacts can be felt on local communities in all directions. As such JPAG considers the traditional approach of identifying zones of influence in the PEIR for the consideration of potential impacts fails to fully consider the encircling effect of the development.

108. In addition to the overall encircling effect that occurs across the entire GNR project, localised severe encircling impacts arise on individual communities. These communities completely surrounded include Staythorpe, Averham Park and Maplebeck. Other communities within the circle including Norwell, Norwell Woodhouse, Ossington, Cauntton, Bathley, Kersall, Moorhouse and Little Carlton will not be able to leave their villages without going through the GNR.

109. The nature of the River Trent and the limited crossing points means that settlements like Averham and Kelham will not be able to effectively leave their villages without going through the GNR. Other villages such as South Muskham, North Muskham and Cromwell are effectively surrounded by GNR because of the limited ways in and out.

110. As such, in the PEIR and the subsequent Environmental Statement we consider that the zones of influence used for assessing impacts should include all of the 18,119.8 hectares over which the Development extends across, with the buffer then applying to the outer edge of the circle formed by the Order Limits. It is acknowledged that this would increase the area to be investigated for the various topics. However, the applicant has chosen to extend the Development over such a massive area; therefore, the burden and cost of undertaking adequate investigations is of their own making.

Site Selection Methodology

111. The site selection methodology Schedule 4, Paragraph 2 of the EIA Regulations sets out the information for inclusion in the PEIR as follows:

“A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.”

112. The PEIR lists the factors considered in site selection as:

- Within a 15 km radius of the Staythorpe substation;
- Area south and east of the A1 and River Trent were also excluded due to the multiple environmental factors affecting the road and river corridor and the additional costs of crossing the Trent;
- Physical and developer considerations (buildings, woodlands, roads, railways, watercourses, existing power lines and steep slopes);
- Landscape and visual considerations (local landscape designations (the potential Sherwood Forest Regional Park), proximity to buildings, and local plan allocations for other uses);
- Heritage considerations (listed buildings, scheduled monuments, conservation areas, historic parks and gardens, battlefields and local heritage designations (the historic landscape at Laxton, and Sherwood Forest Heritage Area));
- Land use considerations (parks and recreation areas, local plan allocated development sites; local plan safeguarded areas; Agricultural Land Classification (ALC) Grade 1 land; and Green Belt, minerals safeguarded areas; ALC Grade 2 land; proximity to a Public Right of Way; open access land (including commons)); and
- Hydrology, ecology and geology considerations (Sites of Special Scientific Interest (SSSIs), SACs, National Nature Reserves (NNRs), ancient woodland, Local Nature

Reserves (LNRs), flood zones 2 and 3, local wildlife sites, irreplaceable habitats (as identified within the Priority Habitat Inventory) and Local Geological Sites.

113. The PEIR goes on to say: *“Alternative technologies, for generating 800 MW (AC) and connecting this at the existing Staythorpe substation, have been considered and discounted. The local area is not suitable for nuclear or hydroelectric generation of this scale. To generate this capacity with wind turbines would require c. 400 turbines of height c. 120 m, or 130 turbines of height c. 200 m, and there is insufficient landscape capacity and space between residential properties to accommodate these whilst meeting relevant guidelines and standards.”*
114. No cogent or substantive evidence is provided to support the contention that alternative technologies have actually been considered as alternatives. The River Trent valley is considered suitable by the Government for some form of nuclear electricity generation. West Burton in North Nottinghamshire has been selected as the home of the ambitious STEP fusion energy programme led by the UK Atomic Energy Authority.
115. There appears to have been no analysis as to the feasibility as an alternative for example of Small Modular Reactors, a form of nuclear power. A Rolls-Royce SMR power station as an example could have the capacity to generate 470MW of low carbon energy³⁷. Neither has there been any consideration of further expansion of generation at Staythorpe Power Station using carbon capture and storage technology.
116. As such there appears to have been no consideration of reasonable alternatives to the potential generation of electricity. There has also been no explanation as to other land that has been considered and has been discounted as being unacceptable with the full reasoning given for discounting such land. The only explanation the PEIR puts forward is that in order to minimise visibility from settlements, this influenced the omission of north-facing valley sides to the south of Kneesall; slopes facing towards the northwest edge of Norwell Woodhouse, and fields close to Bathley. However, no such consideration seems to have been considered regarding visibility from Staythorpe and Averham of the BESS and substation for example.

³⁷ Source Rolls Royce SMR website - <https://www.rolls-royce.com/innovation/small-modular-reactors.aspx#section-smr-build>

117. The Order Limits are located within National Character Area 48 Trent and Belvoir Vales and the majority of the Order Limits fall within the local Mid Nottinghamshire Farmlands - Village Farmlands with Ancient Woodlands Landscape Character Type. The PEIR states: *“The area within and immediately surrounding the Order Limits is rural in character although proximity to Newark-on-Trent, major transport infrastructure including the A1 road and East Coast Main Line (ECML) railway, and Staythorpe Power Station and associated transmission infrastructure all exert a more urbanising influence over areas to the immediate east and south.”* The applicant has made similar such derogatory statements at Parish meetings that they have been to.
118. The PEIR and associated Landscape and Visual Impact Assessment takes an incorrect starting point to the character of the area by describing existing infrastructure as having an urbanising influence. The A1 and ECML form a broadly similar alignment up the western side of the River Trent valley. The A1 lies to the east of the Order Limits and the ECML largely lies to the east of the Order Limits except for a stretch between North Muskham and Cromwell. As such these two strategic transport routes do not impact on the majority of the 18,199.7ha of land over which the development is located.
119. Staythorpe Power Station is actually sited on a modest site, less than a fiftieth of the size of GNR. It has been occupied by at least one power station since 1950 when Staythorpe A was commissioned following authorisation in 1946. Staythorpe A closed in 1983. Staythorpe B was commissioned in 1962 and closed in 1994. The current Staythorpe C was commissioned in 2010 and produces enough power for around 2.8 million homes³⁸. The site has a history of power generation of almost 80 years since the original approval in 1946. Staythorpe C is substantially lower in height than the previous two coal fired power stations and its location adjacent to the south-east corner of the Order Limits means that it does not impact on the majority of the 18,199.7ha of land over which the development is located.
120. The Order Limits area is crossed by four overhead power lines, at the Staythorpe National Grid Substation a number of other overhead lines connect going off to the south and south-east away from the Order Limits. These overhead lines are prominent but are not an urbanising influence in the way the applicant suggests.

³⁸ Source RWE

121. Even if the applicant's contention that existing infrastructure has an urbanising influence was accepted that is not justification to add such large-scale infrastructure that would have an industrialisation impact on the landscape. Indeed, to the contrary, there is stronger justification to conserve the unspoilt aspects of the landscape. To apply the logic advanced by the applicant, in the Hope Valley in the Peak District National Park just because the large Hope Cement Works exists, that as an urbanising feature would be justification to put a massive solar farm next to it. In that example the contention is non-sensical as it is in our case.
122. GNR is proposed in the Mid-Nottinghamshire Farmlands and Trent Washlands Regional Character Areas. Most of the Landscape Character Areas are in Good or Moderate Condition and have actions related to the principle of conserve in the Newark & Sherwood Landscape Character SPD. For the Mid-Notts Farmland the SPD says: *"The power generating industry warrants separate consideration due to its enormous impact on the landscape of the region. There are two functioning coal-fired power stations located in the neighbouring Trent Washlands, Cottam, and West Burton to the east. The power stations and associated web of high voltage power lines, of which 4 cross this character area, constitute the most dominant and visually intrusive landscape features within and out-with the Mid-Nottinghamshire Farmlands."*
123. The SPD on Trent Washlands says: *"The two functioning coal-fired power stations located in the Trent Washlands, Cottam, and West Burton are both within Bassetlaw District. Although located outside of the district the power stations, cooling towers and associated web of high voltage power lines constitute the most dominant and visually intrusive landscape features within the Trent Valley river valley corridor. The Staythorpe combined cycle gas turbine station (CCGT) opened in May 2011 on the site of a former energy site. It produces enough electricity to power around 2.8 million homes."*
124. The PEIR does identify that: *"Mid-Nottinghamshire Farmlands / Village Farmlands with Ancient Woodlands - Taking account of the Large, Medium and Small-scale changes to character across the south, centre and east of the LCT - a Wide extent - impacts on the LCT would be of Large/medium magnitude and effects would be Major/moderate, Adverse and significant."*
125. The PEIR goes on to acknowledge that: *"Trent Washlands / Village Farmlands - Large to Medium scale changes for an Intermediate extent of the LCT between Kelham and*

Cromwell as result of the combination of solar areas within and adjacent to the LCT, along with improvements in condition to create the proposed ecological enhancement areas within the LCT. On balance, these effects would be Adverse. Large scale changes within a Limited extent of the LCT east of the railway line near Carlton-on-Trent; and □ Negligible changes to character elsewhere within the LCT. Considered together these impacts would be of Large/medium magnitude and effects would be Major/moderate, Adverse and significant.”

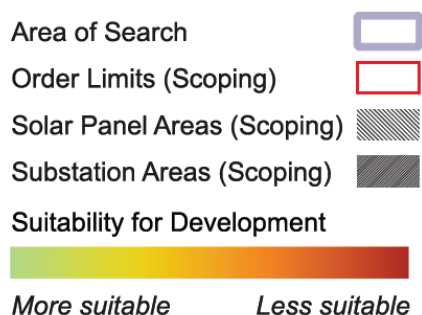
126. The PEIR Technical Appendices - Design Approach Document indicates that design has been informed from the earliest stages by environmental considerations. Site selection and early design has taken account of community, technical and environmental factors including:

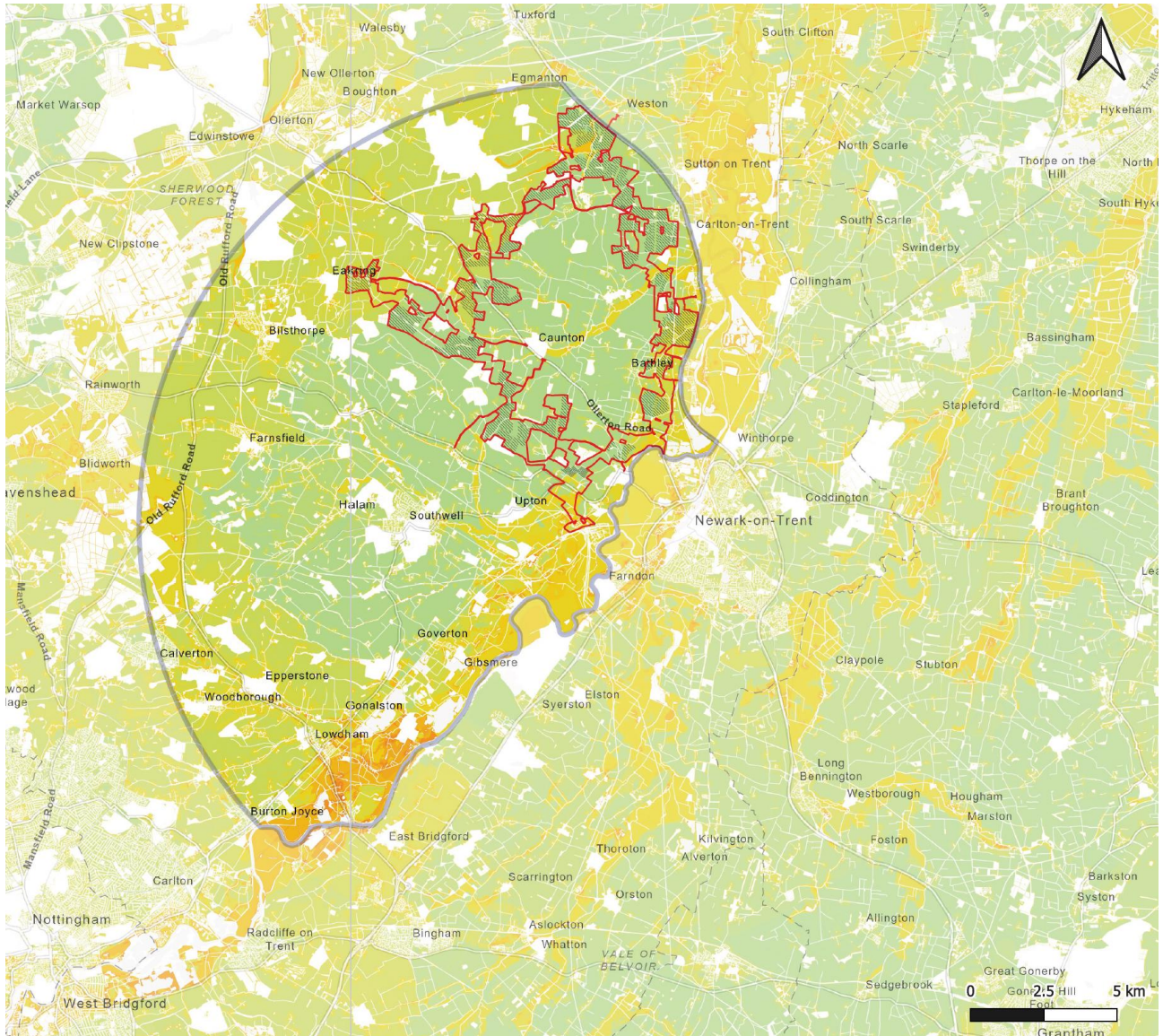
- Identifying land that is physically and technically suitable for the Development;
- Avoiding development within designated landscapes, heritage assets and ecology designations and maintaining separation from these;
- Maintaining separation from settlements and homes;
- Avoiding development within Green Belt, Local Plan allocations and minimising use of land identified as being of the best agricultural quality;
- Limiting development within areas identified as having a higher risk of flooding, and
- Working with willing landowners to avoid the need for compulsory purchase.

127. There is an inconsistency however as these factors do not reflect those in the PEIR site selection and consideration of alternatives set out earlier. Site selection has been too heavily driven by landowners, rather than being the most appropriate and suitable land chosen through a robust site selection methodology.

128. The site selection area is shown to have been:

Figure 1: Site Selection Outcomes



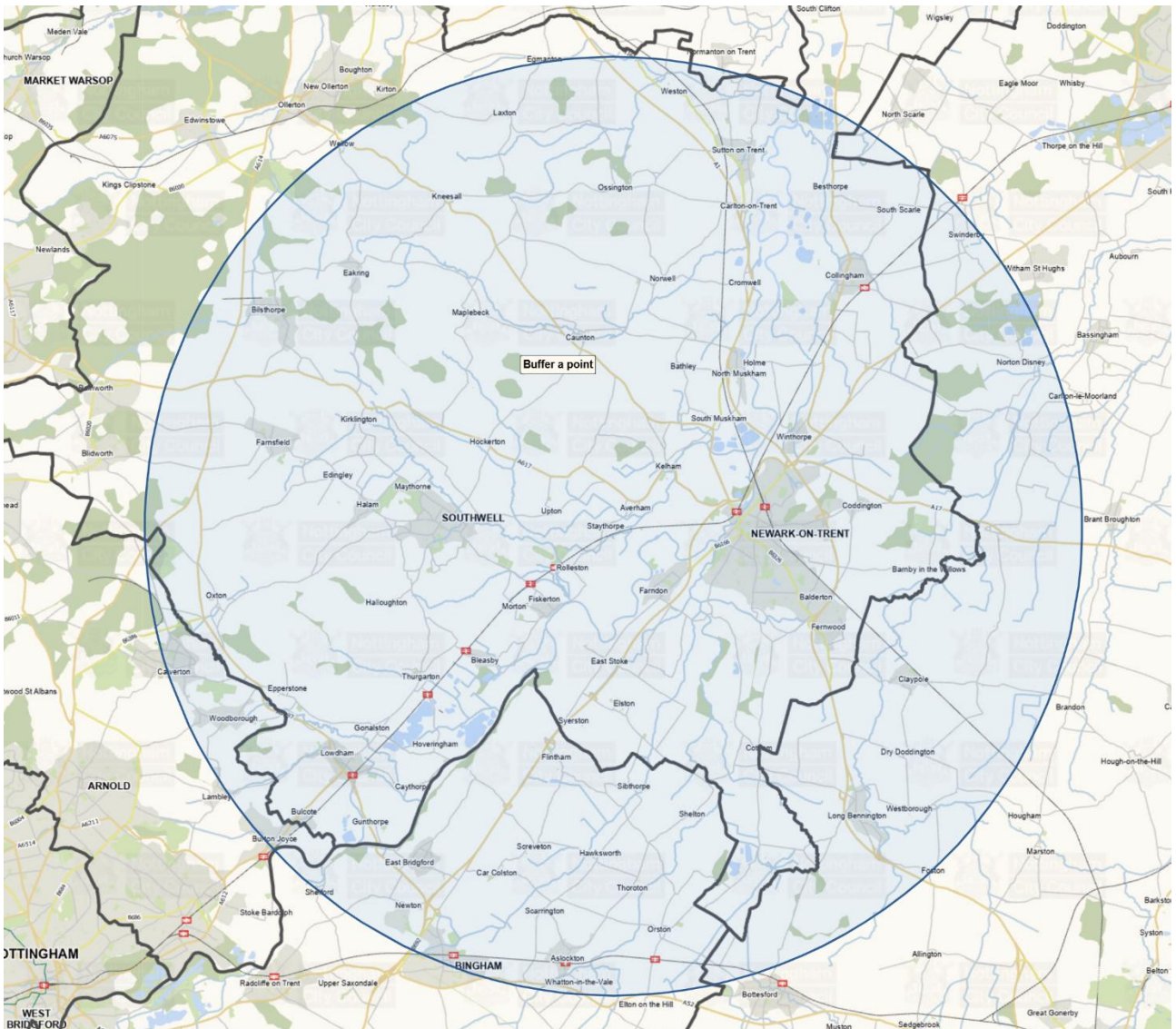


Extract From Design Approach Document © Elements Green Trent Ltd

129. The Design Approach Document and PEIR site selection and consideration of alternatives indicated an area of search based on a 15km radius of Staythorpe substation, but the area of search has actually been cut short by the River Trent and the A1. Unfortunately, the individual topic-based suitability maps in the Design Approach Document don't have the Order Limits overlaid to allow a proper interpretation to be made.

130. There is no explanation as to the rationale of a 15km radius when other NSIP solar projects have longer connection distances to other substations at Cottam and West Burton. There is no cogent or substantive reasoning given as to why the River Trent and A1 have been used as artificial cut offs for the area of search. Other schemes such as Cottam, West Burton, Tillbridge and One Earth cross the River Trent and no explanation is given as to

why is the A1 a barrier to this scheme when other major roads aren't barriers to other schemes.



Actual Extent of 15km Buffer Around Staythorpe Substation

131. The Design Approach Document refers to excluding land to the south and east of the railway lines based on potential difficulties with cable connections across the railway. However, that statement seems illogical and irrational when Staythorpe Power Station is actually located on the opposite side of the railway line to its grid connection. These factors do not therefore appear to be operational constraints that should rightly constrain an area of search. Whilst crossing roads, rivers and railway lines might be more costly and technically challenging, it is not considered to be appropriate to use such features to artificially limit an area of search.

132. We have further inconsistency between what is said in the Design Approach Document and what has actually occurred. The document for example says Conservation Areas and historic parks and gardens are not suitable for development but the Order Limits includes land within the Conservation Areas at Caunton, Maplebeck and Kelham according to the PEIR.
133. Further anomalies also arise with no clear justification. For example, in terms of Agricultural Land Classification (ALC), ALC Grade 1 only identified as ‘best avoided’, with ALC Grade 2 only identified as ‘not preferred’ with nothing listed for ALC Grade 3a. This doesn’t reflect the fact that Grades 1, 2 and 3a all collectively comprise the best and most versatile land. The Design Approach Document appears to have been written in retrospect to try and justify the proposal already devised.
134. As is outlined in the National Policy Statement, the starting position for solar PV developers in taking forward Nationally Significant Infrastructure Projects is that applicants should seek to minimise impacts on the best and most versatile agricultural land (BMV), defined as land in grades 1, 2 and 3a of the Agricultural Land Classification and preferably use land in areas of poorer quality.
135. The Written Ministerial Statement clarified that: *“This means that due weight needs to be given to the proposed use of Best and Most Versatile land when considering whether planning consent should be granted for solar developments. For all applicants the highest quality agricultural land is least appropriate for solar development and as the land grade increases, there is a greater onus on developers to show that the use of higher quality land is necessary. Applicants for Nationally Significant Infrastructure Projects should avoid the use of Best and Most Versatile agricultural land where possible.”*
136. The land within the Order Limits is mostly level or gently undulating agricultural land, and mostly in arable use. Some root crops are grown in the southern part of the site including some sugar beet, but most land use is cereals with arable break crops. There are a number of farms involved within the Order Limits, albeit the PEIR does not clarify how many.
137. West of the River Trent almost all the land falls into the moderate or high likelihood of BMV. East of the River Trent the pattern is more mixed. The PEIR identifies that land classification has not been completed but socioeconomic effects section of the PEIR says 52.4% of the site is estimated to be Grade 3a best and most versatile land. The Provisional

Agricultural Land Classification Figure 17.1 in the PEIR shows significant areas of solar PV proposed for Grade 2 agricultural land, notably around Eakring, Maplebeck, Weston, Cromwell, North Muskham and Kelham. It is unclear as to how the site selection process has had proper regard to avoiding BMV land as the National Policy Statement and the WMS requires.

138. For the GNR project it is hoped that the applicant's soil consultants will liaise with the actual tenant farmers who farm the land, as local knowledge on soil quality is invaluable. We understand that some of the land has been farmed for decades by tenant farmers. Consideration as to what the ALC is on alternative land not chosen should be given in line with the findings in the court case of *Lullington Solar Park Ltd v Secretary of State for Levelling Up, Housing and Communities & Anor* [2024].
139. There is no requirement for a solar farm to be a specific size in terms of output or area. The choice of output being 800MW is an arbitrary figure chosen by the applicant, presumably for economic reasons. Consequently, at the very least the option of reducing the size of the GNR proposal to exclude all land impacting on the BMV agricultural land should have been considered as a reasonable alternative. Perhaps as two alternatives one excluding all land in Grade 2 and another excluding all land in Grades 2 and 3a; although the JPAG notes that national policy does not treat Grades 1, 2 and 3a differently, so they should not really be treated differently in site selection. There is no evidence to demonstrate that such an option or options has/have been duly considered.
140. As it is a PEIR that has been produced to date, the applicant has stated that a full Residential Amenity Assessment has not been provided but that will follow in due course, after consultation. Only then will we know what the significant adverse effects on the wider local population are, including which individual houses are likely to be impacted by a major or major moderate adverse effect. Consequently, such factors of landscape and visual impact have plainly not been fully considered in the site selection process in the first place.
141. We have further inconsistency in the site selection criteria. In the Design Approach Document, mineral safeguarded areas are listed as 'not preferred' but they don't appear to have influenced the shading shown on Figure 5: Land Use Considerations. Mineral extraction, particularly in terms of sand and gravel is a significant feature of land use in

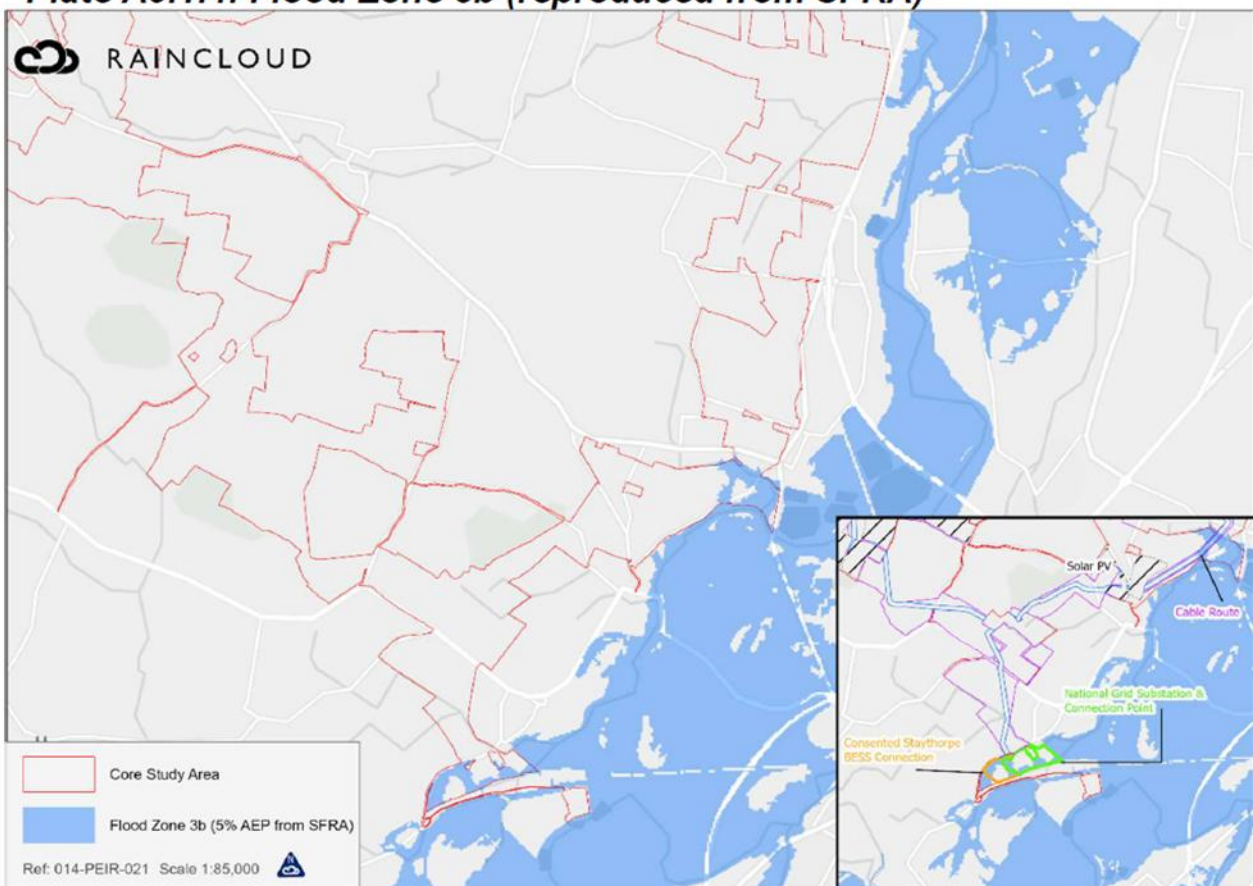
Nottinghamshire, including around Mansfield, the River Trent valley and the River Idle valley. Clay extraction is a significant feature in the Kirton area.

142. Both sand & gravel and clay are nationally important mineral resources and make an important contribution to the construction industry, including the provision of homes, employment and infrastructure.
143. In the Design Approach Document, Flood Zones 2 and 3 only identified as ‘areas best avoided’, no cogent or substantive explanation is provided for this approach. This is particularly unjustified when the flood risk sequential test needs to be considered as a primary consideration.
144. In terms of flood resistance and resilience measures the PEIR identifies that there will be a requirement to raise all electronically sensitive equipment at least 300 mm above the highest modelled flood level for the 1% annual exceedance probability (AEP) event (plus climate change allowance at 23%), in accordance with the Environment Agency’s Accounting for residual uncertainty: an update to the fluvial freeboard guide, where there is confidence in the flood data or 600 mm where flood data has substantial uncertainty or uses old data. However, this in itself doesn’t address the sequential or exception tests; neither is it clear whether the need to raise up equipment has been taken into account in the various assessments such as the landscape and visual impact.
145. The PEIR admits in relation to fluvial flooding that whilst the majority of the proposal (82.27 %) is located within Flood Zone 1, there are areas in the north and east of the project classified as Flood Zone 2 and 3 associated with out of channel flows from the River Trent, The Beck and Moorhouse Beck.
146. The PEIR acknowledges that the EA Flood Map for Planning shows that the Order Limits 10.19 % lies in Flood Zone 2 and 7.54 % is in Flood Zone 3. This is almost a fifth of the project area.
147. On the issue of Tidal Flooding the PEIR says that: *“The combined flood defence breach dataset from the Tidal Trent Flood Study (Jacobs, 2023) shows that the 1 % AEP + 62 % CC marginally encroaches into the CSA (Fields 23, and 22). This represents 0.15 % of the Order Limits.”*

148. In relation to Pluvial (Surface Water) Flooding the PEIR states: *“The EA pluvial flood depth datasets (Risk of Flooding from Surface Water Depth), shows that the majority (95.24 %) of the CSA is located outside areas classified as at risk of flooding for the 1 % AEP event.”*

149. Somewhat concerningly the Order Limits also impacts on long established Flood Defences, namely Works Areas 2a and 2b cross a flood defence (EA Asset ID 54462) approximately 500 m west of South Muskham, which is classed as Engineered High Ground. Maintaining the integrity of the existing flood defences in the Trent Valley is crucial because of the vast area over which flood water regularly amasses between Kelham, Newark and South Muskham in particular in relation to this specific EA flood defence.

Plate A9.1.4: Flood Zone 3b (reproduced from SFRA)



Extract from PEIR Technical Appendix A9.1: Flood Risk Assessment © Elements Green Trent Ltd

150. Taking into account the Newark & Sherwood Strategic Flood Risk Assessment (SFRA), parts of the Order Limits are located within the functional floodplain (Flood Zone 3b), specifically Work Area 6: National Grid Staythorpe Substation and connection point and Work Area 7: Consented Staythorpe BESS and Connection as shown in Plate A9.1.4 above.

Plate A9.1.19: Flood Zones in south of CSA

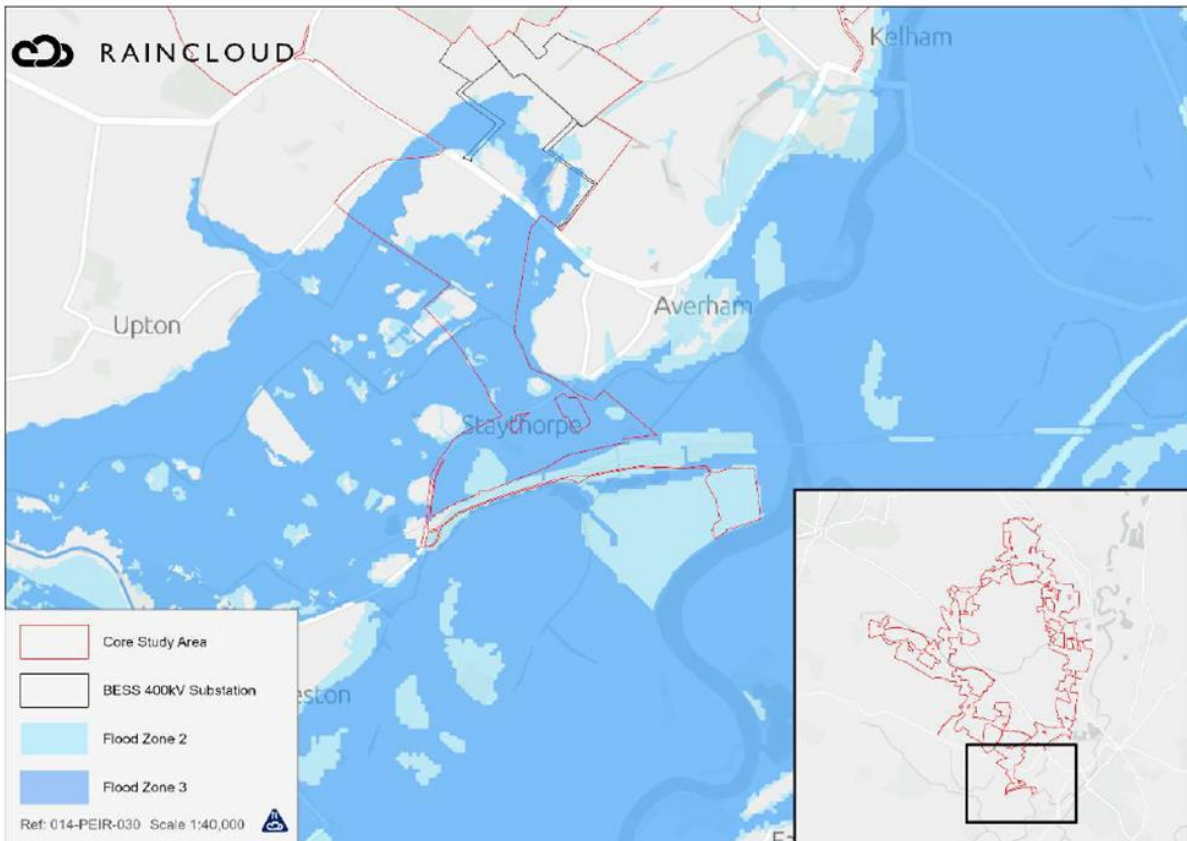


Plate A9.1.3: Flood Zones



Extracts from PEIR Technical Appendix A9.1: Flood Risk Assessment © Elements Green Trent Ltd

151. The FRA sequential test has not demonstrated that it is not possible to locate the development on land identified as having a lower risk of flooding, not including land in Flood Zones 2 and 3. The NPPF in referring to ‘essential infrastructure’ which includes solar farms doesn’t exempt it from needing to pass the sequential test and exception test. National policy in EN1 requires the sequential test to be passed.
152. The aim of planning policy on development and flood risk are to ensure that flood risk from all sources of flooding is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to steer new development to areas with the lowest risk of flooding.
153. EN1 in paragraph 5.8.7 is clear that where new energy infrastructure is, exceptionally, necessary in flood risk areas for example where there are no reasonably available sites in areas at lower risk then it must be flood resilient. However, such resilience measures such as increasing the height of equipment then has other impacts that need to be considered. National policy is also explicit that the exception test is only appropriate to be considered where the sequential test has firstly been passed.
154. There is no requirement for a solar farm to be a specific size in terms of output, so at the very least the option of reducing the size of the GNR proposal to exclude all land at risk of flooding should have been considered as a reasonable alternative. There is no evidence to demonstrate that such an option has been so considered.
155. The Government has recently updated the ‘National assessment of flood and coastal erosion risk in England’ this was updated on the 22 January 2025. This includes a new national flood risk assessment (NaFRA) which includes better flood data. The previous Risk of Flooding from Rivers and Sea maps were limited to a 50-metre resolution. The better modelling in the new NaFRA provides a 2-metre resolution.
156. The Government describes the NaFRA³⁹ as:
- “The new NaFRA outputs and methods are nationally consistent by design, so that they can be:*
- *regularly and easily updated*

³⁹ <https://www.gov.uk/government/publications/national-assessment-of-flood-and-coastal-erosion-risk-in-england-2024/national-assessment-of-flood-and-coastal-erosion-risk-in-england-2024#the-new-national-flood-risk-assessment>

- *improved to take on board the latest local model and data improvements.*
- *In future we will be able to make regular national updates to NaFRA to account for the best available evidence.*

In summary the new NaFRA is better because it:

- *covers all sources of flood risk - rivers, the sea and surface water*
- *includes future flood risk due to climate change projections*
- *combines national models with local flood risk models from the Environment Agency and local authorities to provide more detail*
- *has clearer detail on the areas at risk through much higher resolution maps*
- *shows characteristics such as potential flood depths, and the likelihood and impacts, including the economic damages of flooding*
- *provides better impact analysis for properties and infrastructure”*

157. The NaFRA data appears to have potentially been adopted into the data which is now included in the ‘Check your long-term flood risk’ service. The NaFRA data is not scheduled to be included in the ‘Flood Map for Planning’ until Spring 2025. As such we currently have a temporary position that in relation to fluvial flood risk (from rivers and the sea), the ‘Check your long-term flood risk’ service seems to include the most up-to-date NaFRA data whereas the ‘Flood Map for Planning’ does not yet include the latest data.

158. The definitions used in the ‘Check your long-term flood risk’ service are:

- High - More than 3.3% chance of a flood each year
- Medium - Between 1% and 3.3% chance of a flood each year
- Low - Between 0.1% and 1% chance of a flood each year
- Very low - Less than 0.1% chance of a flood each year

159. As you will be aware in the Flood Map for Planning the definitions are:

- Flood Zone 3 - Greater than a 1% annual probability of flooding
- Flood Zone 2 - Between 0.1% and 1% annual probability of flooding
- Flood Zone 1 - Less than 0.1% annual probability of flooding

160. The FRA for GNR will need to be updated to take into account the NaFRA, this should then be taken into account into the site selection process by excluding all land at risk of flooding. This should not be interpreted to mean that JPAG supports the inclusion of land not at risk of flooding as the proposal is not acceptable as a whole for a variety of planning reasons.

161. Surface water flooding is a very important issue for the host communities, many of the villages within the GNR area have been impacted by surface water flooding over recent years. There are legitimate concerns regarding whether leaving fields grassed and unploughed for 40 years will lead to increased and/or faster surface water run-off. Farmers who farm land in the area have expressed numerous concerns that surface water run-off from grassed fields would be greater than for arable fields.
162. What is known for certain that in recent years flash flooding from surface water has seen surface water run-off from fields flooding highways including the A1⁴⁰. There has also been circumstances where surface water run-off appears to have flowed across fields rather than following the drain and dyke networks resulting in settlements flooding such as Carlton on Trent. The watercourses through the area, including The Beck have seen very significant recent flooding events, including in Maplebeck and Caunton. This is rightly an area which is of significant concern to many local residents.
163. The applicant was asked at a Parish Council meeting to seek to explain the apparent coincidence between flooding of the A1 adjacent to the Egmonton Solar Farm and potential surface water run-off from that solar farm. It was noted by residents that the A1 flooding has only occurred since the solar farm was built. The applicant has to the best of our knowledge did not provide an answer to this query.
164. It is noted that the PEIR refers to it being reported in Schwyter & Vaughan that the amount of soil erosion is directly related to the amount of surface water run-off, which depends on the water infiltration rate and the percentage of the slope. The steeper the slope and the less rapid the water infiltration rate, the more rapid the water run-off rate for a given soil.
165. The PEIR notes that most soils will generate rapid or very rapid surface water run-off with slopes between 6 to 12%, regardless of soil type.

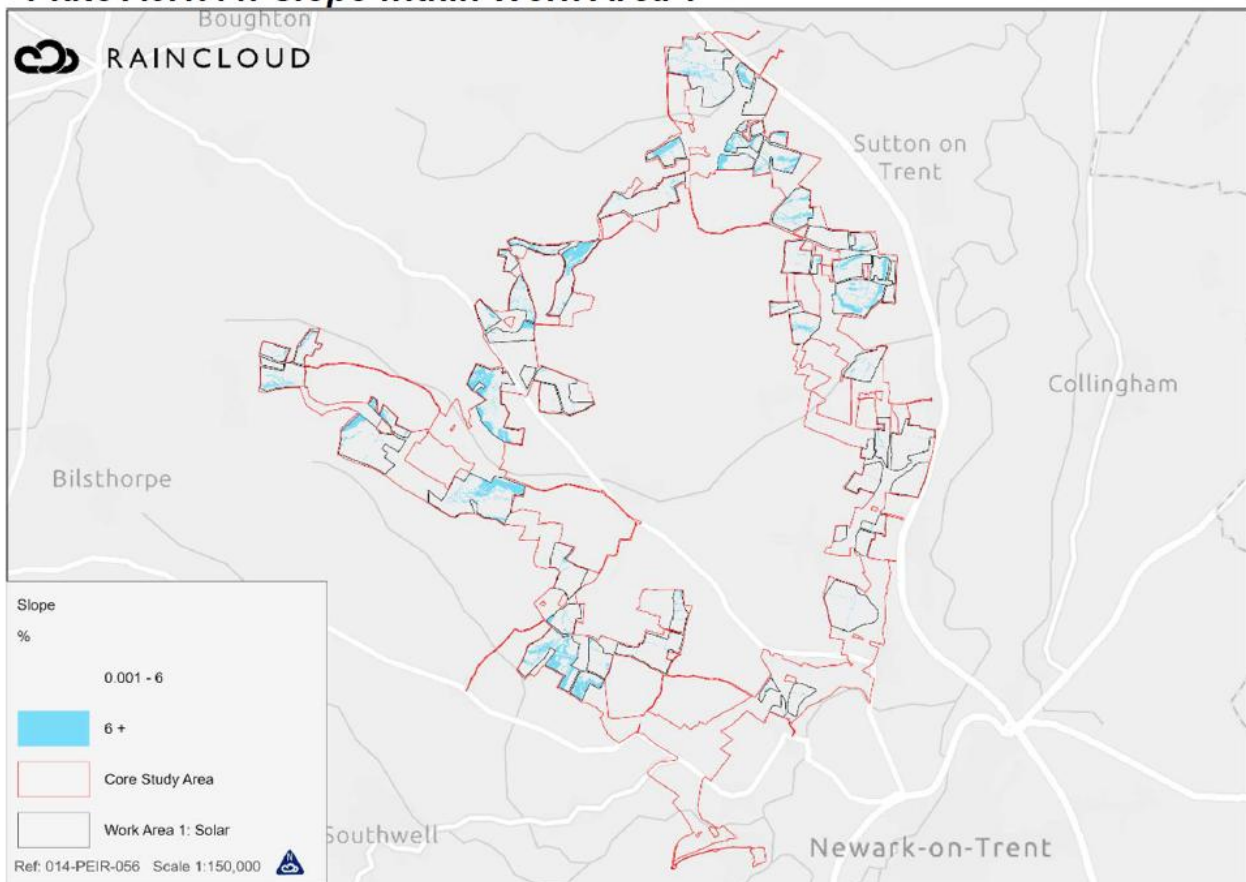
⁴⁰ Nottinghamshire County Council as the Lead Local Flood Authority has to report on flooding incidents under Section 19 of the Flood and Water Management Act (2010); it undertook reports from October 2023 in relation to flooding in Carlton on Trent, Caunton, Egmonton, Maplebeck and Sutton on Trent. Previous reports were done in Carlton on Trent in 2012, Egmonton in November 2019 and Sutton on Trent in 2018

166. The PEIR identifies that 86.7% of Work Area 1: Solar PV is on slopes of less than 6%. It says that in Work Area 1: Solar PV is mostly shallow sloping with steeper slopes confined to the banks of drainage ditches and isolated areas, as shown in Plate A9.1.44.

167. It is rather worrying that the PEIR identifies that the slopes that are greater than a 6% slope, where surface water run-off is more likely to occur, appear to fall in the natural catchment of The Beck, particularly around Maplebeck. The Beck led to serious surface water flooding in Maplebeck and Caunton as well as further downstream in Norwell and Carlton on Trent recently and as such this could lead to future problems.

168. Hydraulic modelling should be undertaken specifically to assess this impact. It is noted that other concentrations of slopes would appear to be in catchment of Moorhouse Beck which could again increase surface water run-off into that watercourse causing problems in Moorhouse and downstream in Weston and Grassthorpe.

Plate A9.1.44: Slope within Work Area 1



Extract from PEIR Technical Appendix A9.1: Flood Risk Assessment © Elements Green Trent Ltd

169. There is a further areas where surface water run-off from slopes could lead to roads such as the road between Ossington and Kneesall. There is also a concentration of slopes to the north of Cheveral Wood which could harm ecology and an ancient woodland.

Cumulative Impact and Concentration

170. There are two different ways in which cumulative impact and concentration should be viewed. Firstly, there is the assessment of cumulative impacts required in the Environmental Statement, thereby assessing the cumulative effects on aspects such as traffic generation, noise, vibration etc. Secondly there is the issue of policy derived cumulative impact and concentration or clustering that the WMS⁴¹ requires decision-makers to have regard to.
171. With regard to the second of these aspects there is a strong historical inter-relationship between the existing and former power station sites along the River Trent valley; namely Staythorpe, High Marnham, Cottam, and West Burton. These all lie in North Nottinghamshire in the Districts of Newark & Sherwood and Bassetlaw and form a 30km long line of major grid connections. These grid connections are the focus for a concentration and clustering of a large number of approved and proposed solar farm projects, together with other energy and infrastructure proposals.
172. The River Trent valley is also home to major land uses such as quarrying, existing and proposed that has a substantial land take.
173. Major infrastructure projects will normally be of a size, scale and nature that they will constitute Environmental Impact Assessment (EIA) development described within the terms of the EIA Regulations 2017. An applicant cannot begin to carry out statutory consultation under section 42 of the Planning Act until they have taken the necessary steps under Regulation 8 of the EIA Regulations 2017 to establish whether an EIA is required.
174. Part 6 of the Levelling-up and Regeneration Act 2023 contains provisions to replace the current Strategic Environmental Assessment (SEA) and EIA requirements with a new regime of Environmental Outcome Reports (EOR). Until the EOR regulations are in place to commence this new regime, the existing arrangements for environmental assessment remain in place.

⁴¹ Solar and protecting our Food Security and Best and Most Versatile (BMV) Land Statement made on 15 May 2024

175. Where the proposed development is determined to be EIA development, an applicant will need to submit an Environmental Statement along with their application.
176. Regulation 14 of the EIA Regulations 2017 requires that an Environmental Statement includes a description of the reasonable alternatives studied by the applicant, and an indication of the main reasons for the option chosen, including a comparison of the effects of the development on the environment (Schedule 4 of the EIA Regulations 2017). Inadequate consideration of alternatives has been used as a vehicle for legal challenge. Alternatives can range from matters such as micro-siting (where the development is located within the site) and alternative access points, to the size and scale of development, technological and design options. The Government advises applicants to fully document all optioneering exercises and decision-making on alternatives from the inception of their projects in their application, and reference this appropriately in their Environmental Statement.
177. Regulations 11 to 13 of the EIA Regulations 2017 set out the pre-application publicity and consultation requirements for the EIA process pursuant to sections 47 and 48 of the Planning Act. Where there are obligations upon the Secretary of State, these are carried out by the Planning Inspectorate:
- Regulation 11 of the EIA Regulations 2017 requires the Secretary of State to notify the prescribed consultation bodies of their duty to consult with the applicant and make any information relevant to the preparation of the Environmental Statement available to the applicant (if requested to do so by the applicant). It also requires the Secretary of State to provide the applicant with a list of those notified consultation bodies;
 - Regulation 12 of the EIA Regulations 2017 requires that the applicant's SoCC must state whether the project constitutes EIA development and, if it does, how the applicant intends to publicise and consult on preliminary environmental information (PEI); and
 - Regulation 13 of the EIA Regulations 2017 requires that publicity of project proposals under section 48 of the Planning Act must also encompass the requirements of the EIA process and at the time of publishing the proposed application, applicants must notify all the notified consultation bodies.

- Applicants need to give consultation bodies sufficient information about the characteristics of the proposed NSIP in order to enable them to respond in an effective and timely way about the likely environmental effects and avoid unnecessary delay. Applicants should discuss providing digital material where possible with relevant statutory consultees.
178. For an NSIP during the pre-application part of the process the matters that will eventually be included in the Environmental Statement at submission (acceptance) is called 'Preliminary Environmental Information' (PEI).
179. Where an NSIP is determined to be EIA development in line with Regulation 8 of the EIA Regulations 2017 the applicant is required by Regulation 12 of the EIA Regulations 2017 to publish sufficient PEI to enable consultees to develop an informed view of the likely significant environmental effects of the proposed development. The information required will be different for different types and sizes of projects and it may also vary depending on the audience of a particular consultation.
180. As required by Schedule 4 of the EIA Regulations 2017 any difficulties or areas of uncertainty such as in data collection, forecasting methods or scientific knowledge must be identified and acknowledged.
181. There is no prescribed format for PEI. However, depending on the availability of material, applicants are encouraged to prepare this as an early draft of the Environmental Statement and include it as such as part of the statutory consultation under sections 42, 47 and 48 of the Planning Act. If applicants decide to take a different approach, they should be clear with consultees about the status of the PEI.
182. In any event, applicants will need to maintain close dialogue with statutory consultees throughout the pre-application period. The provision of PEI can help statutory consultees to understand the environmental effects of the development and may assist in the identification and addressing of potential issues at an early stage in the pre-application process.
183. The cumulative assessment in the PEIR Technical Appendix is not complete and the PEIR has not fully considered cumulative impacts across all headings. Fundamentally it doesn't

consider existing energy infrastructure or energy generation such as Staythorpe Power Station, Staythorpe Substation or the Overhead Lines. The GNR is inextricably directly linked to the existing and planned energy network and energy generation infrastructure.

184. The cumulative assessment scopes out NSIP proposals a bit further away such as Fosse Green and scopes out DCO proposals at early stage such as Steeples Renewables. This is considered to be inappropriate due to the need to consider the impact of concentration and clustering as the WMS requires.
185. The list in places in the Technical Appendix only uses application numbers with no location address or settlement listed making the list unhelpful to use. In addition, the map that shows the location of the other assessed projects for cumulative assessment should show a lot more schemes, this is important to allow the inter-relationship to be understood. In a number of cases the boundaries of these other schemes about the Order Limits.
186. The Habitats Regulations⁴² provide for the designation of sites for the protection of certain species and habitats. When considering whether a proposed NSIP has the potential to significantly affect the integrity of the National Network sites⁴³, the applicant must provide a report as required by Regulation 5(2)(g) of the APFP Regulations 2009. This must include the site(s) that may be affected, together with sufficient information to enable the relevant Secretary of State, as decision maker, to conclude whether an appropriate assessment is required under the Habitats Regulations, and, if so, to undertake such an assessment⁴⁴.
187. Regulation 26 of the EIA Regulations 2017 requires that where an EIA and HRA are required, the processes should be co-ordinated. The HRA process should form part of, and reference, the work carried out for the broader EIA process, particularly with respect to consideration of alternatives, cumulative effects and mitigation options. However, care should be taken to ensure that the information relevant to the HRA and its conclusions are clearly discernible.

⁴² Comprising the Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019)

⁴³ The National Network of protected sites such as SPAs and SACs (and Ramsar sites) were formerly known as the Natura 2000 range of sites, also sometimes referred to as European or International Protected Sites

⁴⁴ In Newark and Sherwood, it is likely to be necessary to consider effects on the Birklands Bilhaugh SAC, which lies just west of Ollerton

188. Where any potential for likely significant effects on habitats cannot be ruled out and the applicant needs to move to the subsequent stages of the HRA process, it is for the applicant to include as part of the HRA documentation included with the application, usually in the form of a shadow appropriate assessment.
189. In terms of consideration of cumulative impacts in terms of concentration and clustering analysis should involve consideration of the matters set out in Appendix 1.

Socio-Economic Impacts

190. The impact of the project on tenant farmers should be considered separately to the impact on the landowner owned/run farming enterprises. This should include the viability of their remaining landholdings to operate as a profitable farming enterprise. The upstream and downstream impact on agricultural supply chains and those who purchase the arable goods to be lost should also be assessed. The long-term impact on the loss of a generation of active farming and the interrelationship this may have on the assumption that farming could resume post development should be considered.
191. It is considered to be inappropriate for the PEIR to look to consider socioeconomic effects in terms of potential economic benefits across the whole of Newark & Sherwood and Mansfield, when all other impacts are not considered to extend that far. As an example, this chapter therefore looks at policies in Neighbourhood Plans that are a long way distant from the Study Area, when other chapters haven't. This appears to be trying to overstate the perceived economic benefits whilst underplaying the harm in relation to other matters.
192. In planning terms, the GNR area is mostly within the Newark Sub Area with lesser parts in the Sherwood Sub Area and the Southwell Sub Area defined in the Newark & Sherwood Amended Core Strategy. None of the GNR area is the Mansfield Fringe Sub Area. Notwithstanding the definition of Travel to Work Areas⁴⁵ for economic purposes, the settlements within the GNR area do not have strong interrelationships with Mansfield. In any event the eastern part of the GNR area is in the Lincoln Travel to Work Area and the GNR area immediately abuts the Nottingham Travel to Work Area and the Worksop & Retford Travel to Work Area. The PEIR is not taking a consistent approach towards use of Travel to Work Areas.

⁴⁵ The Travel to Work Area boundaries were published in August 2015 using 2011 Census commuting flow data, and are referred to as 2011 Travel to Work Areas.

193. Using 2011 census information is considered to be far too dated, being not only pre-Covid but also fails to reflect substantial housing growth and employment growth since then.
194. Limiting the impact on tourism to a 5km distance from the Order limits during the operation is considered to be inappropriate because accommodation these days tends to be used as a base from where visitors go out to explore a wide geographical area, particularly in rural areas.
195. The construction phase is estimated to create up to around 120 local net direct construction FTE jobs and 60 local net direct manufacturing FTE jobs. This is temporary employment and construction projects tend to use a transitory labour force that moves from project to project, rather than necessarily providing local employment.
196. The PEIR suggests that based on a 2,186ha area of agricultural loss during construction (work areas, 1, 2a, 2b, 4, 5 and 7), this would support approximately 9 employees, resulting in an overall net gain in employment as a result of the construction phase of 166 direct local FTE jobs. However, area 3 for mitigation/enhancement and area 8 access works will also be lost from the current arable farming so need to be assessed as being lost which the PEIR doesn't do. In any event the impact in terms of the loss of land is on individual farms, including tenant farmers.
197. In relation to the impact of the loss of employment the PEIR includes inconsistent figures. The PEIR refers to during construction 2,186ha of land lost would equate to 9 agricultural employees lost⁴⁶, but during operation a lesser 1,405 ha lost would also lead to a loss of 9 employees from agriculture. This inconsistency is not explained. Later in the socioeconomic section of the PEIR it is says 2,900ha will result in loss of 18 FTE jobs⁴⁷ during construction, which is double the figure stated elsewhere. Also, later the PEIR says

⁴⁶ Based on a 1,405ha area associated with the loss of agricultural land; it is estimated that this would support approximately 9 direct local FTE employees. The average GVA per agriculture, fishing and forestry employee in the East Midlands equates to approximately £96,158. Therefore, over the full operational phase this would result in a loss in GVA (factoring in a discount rate of 3.5%) of £18.1m

⁴⁷ The average GVA per Agriculture, fishing and Forestry employee in the Derbyshire and Nottinghamshire equates to approximately £96,158, therefore, based on a 2,900 ha site; this is estimated to support approximately 18 direct local FTE employees. This will result in a loss to GVA of approximately £1.75m per year or £3.50m over the 24-month construction programme

2,186ha lost would equate to a loss of 14 FTE⁴⁸ jobs. The impact on family farmers needs to be considered in particular⁴⁹.

198. The impact is not the loss of land from a single farming enterprise but is instead parts of numerous farming enterprises. There has been no assessment as to how many farms are affected and to what extent. A simple mathematical equation does not represent the full picture of the impact. If the loss of land to a tenant farmer means that their farm is no longer viable then that could result in the loss of that entire farming enterprise and potential the home for the tenant farming family. A proper in-depth analysis of the actual impact rather than some theoretical loss of jobs should be undertaken.

199. The PEIR claims: *“During the operational stage, a project of 800 MW of installed solar capacity is estimated to support 320 full time equivalent direct and indirect jobs. This is the number of jobs supported on site, in supply chains and via wage effects but does not include employment related to the sale of electricity itself. Low Carbon and Renewable Energy Economy employment multipliers for 2020 estimate that solar PV developments have a multiplier of 2.08. This means that for every one job provided directly another 1.08 indirect/induced jobs are supported. This would indicate that the operational and maintenance phase would create circa 154 direct jobs with the remaining circa 166 being indirect jobs associated with the supply chain and wage effects.*

On this basis the operational and maintenance stage would result in the creation of approximately 19 direct local FTE jobs in the local economy over the full operational phase of 40 years, and a further 21 jobs in the wider economy. Furthermore, there is expected to be an increase in jobs associated with sheep grazing, equivalent to 11 local direct FTE jobs. It is, however, important to consider the jobs lost as a result of the change of use from agriculture. Based on an approximately 1,405 ha area of agricultural loss during operation (based on Work Areas no. 1, 4, 5, and 7), it is estimated that this would support approximately 9 direct local FTE employees. Therefore, the net total jobs

⁴⁸ Working on the predicted future crops to be grown, based on an approximately 2,186ha area of agricultural loss, this would, therefore, require approximately 3,776SWDs or 30,208 work-hours which is the equivalent of circa 14 direct local FTE jobs

⁴⁹ Agricultural workforce in England at 1 June 2024 – Defra 21 November 2024

<https://www.gov.uk/government/statistics/agricultural-workforce-in-england-at-1-june/agricultural-workforce-in-england-at-1-june-2023>

The total number of people working on agricultural holdings in England was 285 thousand on 1 June 2024. This is a decrease of 2.6% since 2023. Farmers, business partners, directors and spouses account for over half (61%) of the total workforce and decreased by 3.1% to 173 thousand people in 2024. Regular workers increased by 1.5% to 66 thousand people in 2024. Casual workers saw a fall of 7.3% between 2023 and 2024.

created by the Development over the operational phase would, therefore, equate to 21 net direct local FTE jobs.”

200. The applicant Elements Green Trent Ltd is a loss-making company, its latest published accounts up to 31 December 2023 show it made a loss of (£1,170,430) and its records show it having just 2 employees. The parent company Elements Green Ltd only has 35 group employees.
201. There is no explanation as to where these suggested future jobs will be located, the applicant company is based in London and has no local base. Aspects such as CCTV supervision or system management can be done remotely and as such does not guarantee local employment. Management of premises can often be undertaken by national facilities management companies who again may not provide any actual local employment.
202. The PEIR claims that the suggested sheep grazing is expected to support 11 jobs⁵⁰. However, local residents report having had conversations with the farmer indicated by the applicant to be the party to be going to undertake the sheep grazing, and they have apparently stated that only two jobs are planned to be created. JPAG have not themselves spoken to the sheep farmer but have no reason to doubt what local residents have reported.
203. In the same discussions the sheep farmer has allegedly said that they are assuming that 10% of the sheep stock⁵¹ will be lost through illness and injury because grazing over such a large area and at such a low density amongst the solar panels means that supervising the flock and allowing all sheep to be seen personally regularly as per the Defra ‘Code of recommendations for the welfare of livestock: sheep’ requires.
204. The DCO application should explain how the health and welfare of livestock can be ensured over such a huge area. It is noted that the applicant has undertaken publicity⁵² claiming that 9,000 sheep including lambs will graze the land, that figure does not match the 5,488 sheep quoted in the PEIR.

⁵⁰ The loss of agricultural output will, however, be more than offset by the GVA associated with the sheep grazing proposed within the solar areas. This equates to a gain of approximately £20.4m. On that basis the GVA lost by the cessation of agricultural employment is more than offset by the GVA gained by the Development during operation/maintenance, resulting in a net deficit in GVA of approximately £26.9m, or £0.67m per annum

⁵¹ The solar work area on site is approximately 1,372 ha. Therefore, it is expected that there will be 5,488 sheep grazing the solar areas of the site (at 4 sheep per hectare)

⁵² <https://www.nottinghampost.com/news/local-news/almost-10000-sheep-set-make-9814873>

205. The claim that agricultural use of the land will continue to occur ignores the basic aspect that land currently used for arable will become used for grazing. That is a fundamental change in land use that cumulatively has implications for food security. Defra statistics⁵³ show that in 2022 Nottinghamshire had 310 sheep flocks totalling 47,677 sheep so the project would increase sheep numbers by 11.5%. Sheep grazing is not a common agricultural use for higher quality land that currently sustains arable production.
206. The average East Midlands Farm size in 2023 according to Defra was 103ha, the third largest of the England regions. So, a loss of 2,900 ha would equate to the equivalent loss of 28 average farms. No information has actually been provided on the actual number of farms lost in total or lost in part, as such it is difficult to quantify the actual impact.
207. Across the East Midlands, Defra statistics show that arable was 70% of farmed area, with permanent pasture being 21% of farmed area. Defra statistics also show that 33% of farmed area is rented in the East Midlands, highlighting the important role played by tenant farmers. The statistics also show that 70% of farms are cereal or cropping with only 14% of farms grazing livestock. As such moving such a large amount of land to grazing in an area dominated by arable fails to recognise the role that farmland in this area should perform. There are large amounts of low-quality agricultural land such as upland across England where sheep grazing can be the most appropriate use of the land.
208. In addition, the Defra statistics which refer to the Defra, Farm Business Survey, identify that average farm income in the East Midlands for cereals was £153,000, for general cropping was £180,100, but for grazing livestock it was only £20,300. Accordingly, there is a 7.5-fold difference in income for an average arable farm to an average grazing livestock farm. As such the proposal is substantially lowering the agricultural economic potential of the land to sustain agricultural incomes, with the knock-on effect on the wider economy of lower spending power.
209. Whilst it may well be that the sheep farmers may be paid an additional amount by the applicant in lieu of needing to cut the grass; the data however shows how little income can be sustained by a sheep grazing farm. As such the suggestion that sheep grazing would sustain higher levels of employment than arable seems illogical.

⁵³ <https://www.gov.uk/government/statistics/agricultural-facts-england-regional-profiles/agricultural-facts-east-midland-region>

Other Planning Considerations

210. Individual Parishes have been encouraged to comment on traffic issues. The proposed construction traffic access routes through much of the area are unsuitable because they overly rely upon narrow single-track roads and dissect communities by passing through them.
211. For example, the routes chosen will be a barrier to people moving from one part of the village to another in Moorhouse, Ossington, Cromwell, North Muskham, South Muskham, Weston and Carlton on Trent (not counting A roads). Many of these villages either have no designated footways and/or have in the past experienced fatal accidents with HGV and pedestrian conflict, notably at Carlton on Trent at the junction of the Great North Road and the A1 overbridge.
212. Concerns regarding the proposed use of narrow roads with no pavements which are used by walkers, horse riders and cyclists, increasing collision risk, and fear and intimidation are legitimately held by local residents.
213. In addition, a number of the routes chosen either flood regularly such as the A617 between Kelham and Newark and Trent Lane between Kelham and South Muskham. Also, Kelham Lane at Little Carlton is closed during times of flooding as part of the diversion provisions put in place when the A617 is closed. The traffic routings have been put together without any apparent local knowledge or understanding of the road network.
214. Individual Parishes have been encouraged to comment on issues of noise, vibration and traffic movements on sensitive receptors including dwellings, schools etc. In addition, they have been encouraged to highlight the socioeconomic impact on tourism/accommodation businesses and hospitality venues.
215. Parishes are also best placed to comment on where there will be a significant adverse visual amenity impact on residents and the visual impact on the rural landscape. They also hold local knowledge on ecology including ground nesting birds such as lapwings and skylarks; and are best placed to provide comments on the specific impacts to heritage assets. They also hold invaluable local knowledge on land that has been previously used as a local leisure resource, such as Ossington airfield; as well as providing detailed comments on the impacts on public rights of way.

Conclusion

216. The JPAG does not support the proposal for the above reasons. Although the JPAG understands that the PEIR by its nature is provisional and accordingly some investigations or assessments are still to be completed, it is disappointing that fundamental work streams are incomplete and the documents contain numerous basic errors, inconsistencies and anomalies. It is understood that a PEIR is to be expected to contain less detail than the subsequent Environmental Statement that will accompany the submitted DCO application. However, because the DCO examination process doesn't allow much flexibility to accommodate changes/modifications to the scheme, now is the appropriate time to be able to make an evidenced based argument in respect of changes to the scheme.
217. In the absence of complete and final assessments, JPAG has not been able to comment on all matters and as such JPAG may need to raise different or additional matters in the form of a relevant representation following acceptance.
218. It is anticipated that JPAG will continue to operate as an alliance and will participate in the examination process to advance the position of itself and the constituent Parish Councils and Parish Meetings.

Appendix 1

Cumulative Impact of Development

Land Use Statistics

Agricultural Land Use (at 1 June 2023 - released December 2023)

- The utilised agricultural area (UAA) is 17.0 million hectares in 2023 and accounts for 70% of the total area of the UK.
- The total croppable area is just over 6.0 million hectares in 2023 and accounts for just over a third (36%) of UAA.

Crops

- The total area of arable crops saw a 1.1% decrease between 2022 and 2023, falling to just under 4.4 million hectares.
- Cereals account for the majority (71%) of the total arable crop area, covering almost 3.1 million hectares in 2023.
- The area of wheat decreased by 5.1% to 1.7 million hectares, whilst the area of barley increased by 1.9% to 1.1 million hectares.
- The area of oilseed crops increased by 4.7% to 418 thousand hectares in 2023. Oilseed rape accounts for 94% of this area and rose by 7.2% to 391 thousand hectares in 2023.
- Potatoes decreased by 9.9%, falling to 115 thousand hectares in 2023.
- The remaining arable crops covered 750 thousand hectares. Field beans and maize together account for over half of this area. Field beans rose by 1.1% and maize increased by 8.5% between 2022 and 2023.
- In 2023 the total area of horticultural crops decreased by 5.2% to 145 thousand hectares. Vegetables and salad for human consumption make up the majority (69%) of this area and decreased by 6.6% to 100 thousand hectares in 2023.

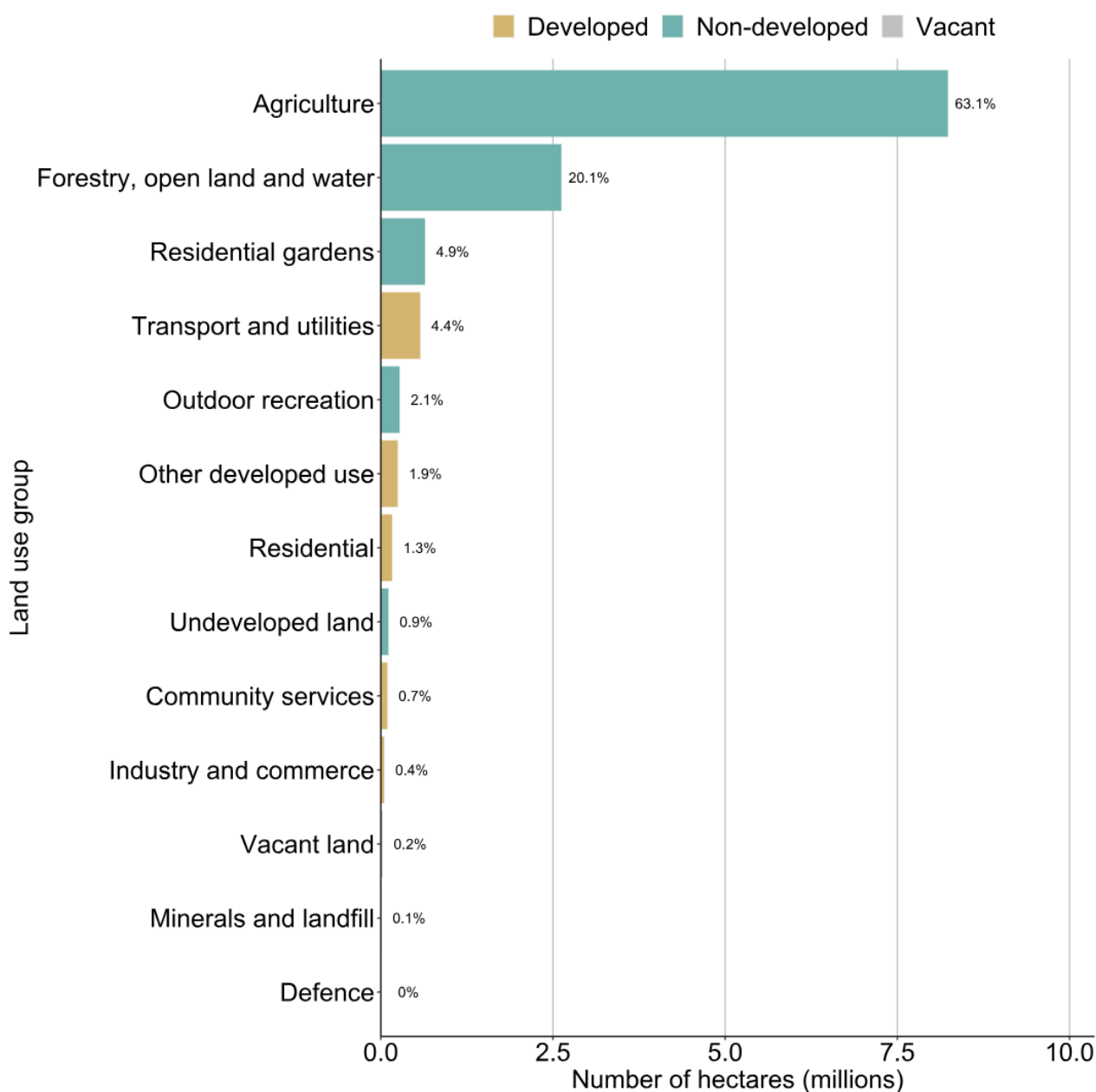
Land Use Statistics: England 2022 (Published 27 October 2022)

These are the latest land use statistics that have been published.

England as at April 2022:

- 8.7% of land in England is of developed use, with 91.1% of non-developed use and the remaining 0.2% being vacant.
- The top 3 land use groups were 'Agriculture' (63.1%), 'Forestry, open land and water' (20.1%), and 'Residential gardens' (4.9%).

Figure 1: Land use by land use group, England 2022

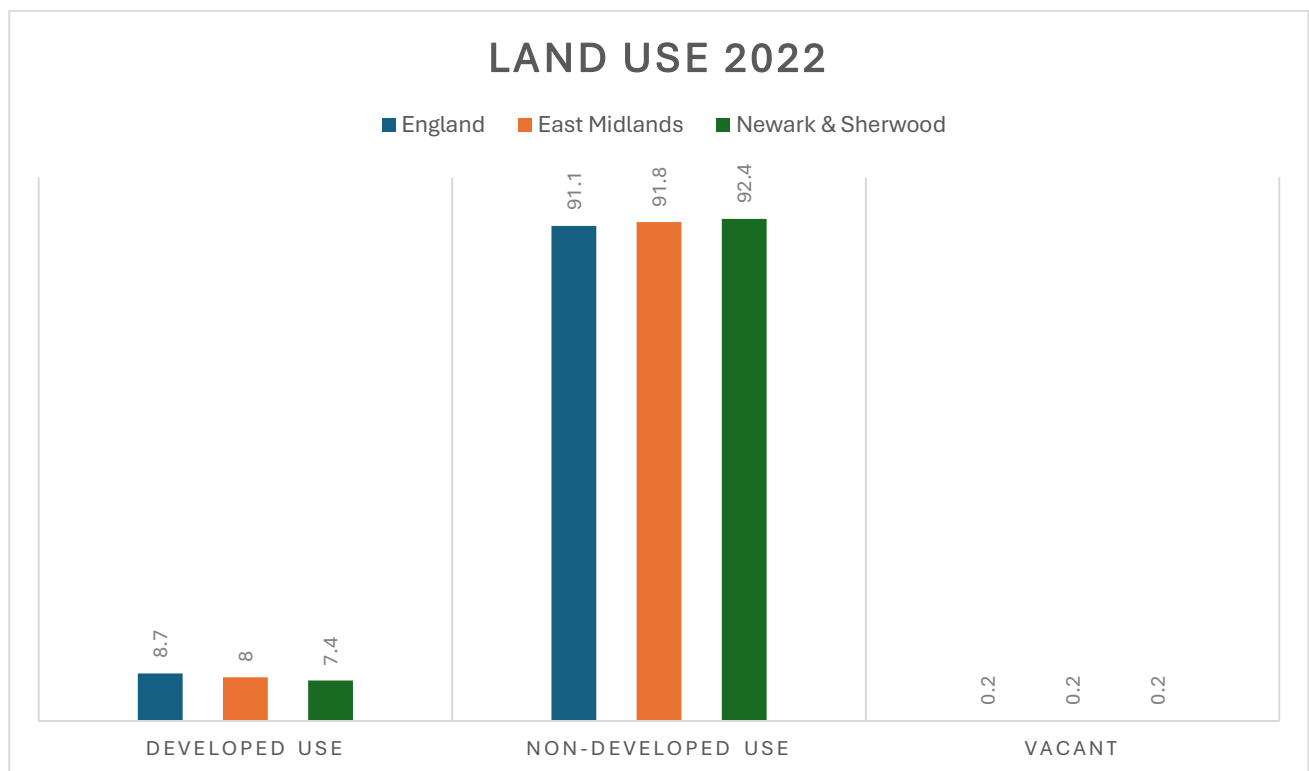


The East Midlands Region as at April 2022:

- 8.0% of land in the East Midlands is of developed use, with 91.8% of non-developed use and the remaining 0.2% being vacant.
- The top 3 land use groups were 'Agriculture' (73.5%), 'Forestry, open land and water' (11.8%), and 'Residential gardens' (4.1%).

Newark and Sherwood Land Use in 2022

Developed Use	7.4%	4,815Ha
Community Service	0.4%	229Ha
Defence	0.0%	0Ha
Industry and Commerce	0.2%	134Ha
Minerals and Landfill	0.2%	112Ha
Residential	0.7%	456Ha
Transport and Utilities	4.0%	2,618Ha
Unknown Developed Use	1.9%	1,265Ha
Non-Developed	92.4%	60,203Ha
Agriculture	73.2%	47,679Ha
Forest, Open Land & Water	14.0%	9,122Ha
Outdoor Recreation	1.1%	724Ha
Residential Gardens	3.5%	2,264Ha
Undeveloped Land	0.6%	413Ha
Vacant	0.2%	116Ha
Grand Total	100.0%	65,134Ha



Great North Road Solar (2,900Ha) on its own would amount to 4.45% of all land in Newark & Sherwood; 4.82% of all non-developed land in Newark & Sherwood; and 6.08% of agricultural land in Newark & Sherwood.

It would more than double the amount of land already occupied by Transport and Utilities from 4.02% (2,618Ha) to 8.47% (5,518Ha).

It would occupy more land in Newark & Sherwood than all the residential dwellings and their residential gardens combined which cover 4.18% (2,720Ha).

It is equivalent to 60.22% of the amount of land in developed use already in Newark & Sherwood.

It would increase the amount of land in developed use in Newark & Sherwood from 7.39% (4,815Ha) to 11.84% (7,715Ha)

Middle Super Output Area Land Use in 2022

Newark & Sherwood 003 (Muskham, Sutton on Trent & Walesby)



Developed Use	772Ha
<i>Community Service</i>	<i>21Ha</i>
<i>Defence</i>	<i>0Ha</i>
<i>Industry and Commerce</i>	<i>19Ha</i>
<i>Minerals and Landfill</i>	<i>18Ha</i>
<i>Residential</i>	<i>42Ha</i>
<i>Transport and Utilities</i>	<i>464Ha</i>
<i>Unknown Developed Use</i>	<i>208Ha</i>
Non-Developed	15,105Ha
<i>Agriculture</i>	<i>13,439Ha</i>
<i>Forest, Open Land & Water</i>	<i>1,254Ha</i>
<i>Outdoor Recreation</i>	<i>24Ha</i>
<i>Residential Gardens</i>	<i>318Ha</i>
<i>Undeveloped Land</i>	<i>72Ha</i>
Vacant	2Ha
Grand Total	15,879Ha

This is the Middle Super Output Area (MSOA) that corresponds the most closely to the geographical extent of the Great North Road Solar project.

Great North Road Solar (2,900Ha) on its own would amount to 18.26% of all land in the MSOA; 19.20% of all non-developed land in the MSOA; and 21.58% of agricultural land in the MSOA.

It would increase the amount of land already occupied by Transport and Utilities in the MSOA by more than a seven-fold margin from 2.92% (464Ha) to 21.18% (3,364Ha).

It would occupy over nine times the amount of land in the MSOA than all the residential dwellings and their residential gardens combined which cover just 2.27% (360Ha).

It is 3.76 times the amount of land in developed use already in the MSOA.

It would increase the amount of land in developed use in the MSOA from 4.86% (772Ha) to 23.12% (3,672Ha).

List of Cumulative Projects

Newark and Sherwood (Entire District) (4,051MW) (8,733Ha)

(Note Newark and Sherwood covers 65,134 Ha)

*(Note schemes partly in Newark & Sherwood and partly in Bassetlaw and Lincolnshire marked * are listed under N&S)*

Existing and Operational Energy (2,014MW) (417Ha)

1. Egmanton Solar (14MW) (25Ha)
2. Hawton and The Grange Solar (50MW & 5MW) (99Ha)
3. Bilsthorpe Business Park Solar (5MW) (11Ha)
4. Crifton Lodge Farm, Bilsthorpe Solar (5MW) (12Ha)
5. Eakring, Deerdale Lane Solar (12MW) (26Ha)
6. Rufford Stud Farm, Bilsthorpe Solar (3MW) (8Ha)
7. Netherfield Lane, Perlethorpe-cum-Budby Solar (20MW) (38Ha)
8. Staythorpe Power Station (57Ha) (21/01678/S36ELE - increase to 1,850MW permitted)
9. Staythorpe National Grid Substation (10Ha)
10. National Grid Electricity Training Centre & Pylons (40Ha)
11. Stonish Hill, Bilsthorpe Wind Farm (10MW) (30Ha)
12. Lindhurst Wind Farm, Rainworth (15MW) (45Ha)
13. Edwinstowe Solar (5MW) (11Ha)
14. Balderton Biomass (20MW) (5Ha)

Existing and Operational Other Infrastructure (0MW) (1,791Ha)

15. Lowdham Grange Prison (15Ha)
16. Southwell Racecourse (71Ha)
17. Newark Sugar Factory (78Ha)
18. British Gypsum and Bantycok Quarry (432Ha)
19. Newark Showground (77Ha)
20. Rufford Colliery Site⁵⁴ (34Ha)
21. Center Parcs (142Ha)
22. Nottingham Trent University, Brackenhurst (22Ha)
23. Kirton Brickworks (157Ha)

⁵⁴ This brownfield site remains undeveloped following demolition of the colliery

- 24. Girton Quarry (104Ha)
- 25. Cromwell Quarry/Langford Lowfields Quarry/Besthorpe Quarry (659Ha)

Major Local Plan Allocations & Major Developments (0MW) (934Ha)

- 26. NAP2A - Land South of Newark Urban Extension (540Ha)
- 27. NAP 2B Land East of Newark Urban Extension (100Ha)
- 28. NAP 2C Land around Fernwood Urban Extension (245Ha)
- 29. NUA/E/1 - Newark Urban Area - Employment Site 2 (12Ha)
- 30. Tritax Park, Sleaford Road, Coddington (37Ha)

Schemes Under Construction (50MW) (75Ha)

- 31. Lockwell Hill (a.k.a Crifton Lodge), Bilsthorpe Solar (50MW) (75Ha)

NSIP Proposals and Electricity Act Proposals (1,540MW) (4,711Ha)

- 32. One Earth Solar * (740MW) (1,600Ha)
- 33. Great North Road Solar (800MW) (2,900Ha)
- 34. A46 Newark Bypass (211Ha)
- 35. Staythorpe Power Station Carbon Capture and Storage (no additional land)

Schemes with Planning Permission (187MW) (398Ha)

- 36. Winkburn Solar Grid Connection (10Ha)
- 37. Winkburn Solar (34MW) (66Ha)
- 38. Weston, Tuxford Road Solar
- 39. Inkersall Grange, Bilsthorpe Solar (50MW) (80Ha)
- 40. Halloughton Road, Southwell Solar (50MW) (107Ha)
- 41. Carlton on Trent Solar⁵⁵
- 42. Staythorpe BESS (11Ha)
- 43. Winkburn BESS (1Ha)

Schemes Proposed (260MW) (407Ha)

- 44. Kelham Solar & BESS (50MW) (71Ha)
- 45. Foxholes Farm, Norwell Solar (50MW) (76Ha)
- 46. Muskham Wood, Caunton Solar (50MW) (69Ha)
- 47. Knapthorpe Solar (50MW) (77Ha)
- 48. Weston, Grassthorpe Lane (50MW) (52Ha)

⁵⁵ The area of this scheme is now included as part of the Great North Road Solar proposal

- 49. South Scarle (5MW) (13Ha)
- 50. Rufford Colliery (5MW) (16Ha)
- 51. National Grid Training Centre New Pylons (no additional land)
- 52. Averham BESS (26Ha)
- 53. Staythorpe Grid Connection (2Ha)
- 54. Staythorpe BESS Grid Connection (5Ha)

Commentary

Existing and Operational Energy sites together with schemes under construction in Newark & Sherwood amounts to 2,064MW and covers 0.76% (492Ha) of all land in Newark & Sherwood.

Existing and Operation Energy and Infrastructure sites together with all schemes with planning permission or proposed would if they were all permitted and built would almost double the energy output amount to 4,051MW and would cover 13.41% (8,733Ha) of Newark & Sherwood⁵⁶.

Bassetlaw (South Eastern Part - east of A60 and A1(M) and South of A631) (2,705MW) (3,141Ha)

(Note this part of Bassetlaw covers approximately 43,615Ha)

*(Note schemes partly in Bassetlaw and partly in Newark & Sherwood and Lincolnshire marked * are listed under N&S)*

(Note the NSIP schemes which cross the Nottinghamshire and Lincolnshire boundary marked ^ that connect to the Bassetlaw River Trent Power Station Electricity Substations (High Marnham, Cottam & West Burton) are listed under West Lindsey)

(Note the North Humber to High Marnham Power Line is partly in Bassetlaw and partly in Doncaster and beyond marked # is listed under Bassetlaw)

Existing and Operational Energy (1,922MW) (687Ha)

- 55. Westwood Farm, Tuxford Solar (5MW) (11Ha)
- 56. Tiln Lane, Retford Solar (10MW) (23Ha)
- 57. Little Morton, Babworth Solar (14MW) (31Ha)
- 58. Walkers Wood, Ranby Solar (27MW) (58Ha)

⁵⁶ These figures include all of the One Earth Solar project which does lie partly in the Neighbouring areas of Bassetlaw and West Lindsey

- 59. Walmoor Farm, Whitehouses, Retford Solar (5MW) (7Ha)
- 60. Hazel Gap, near Budby Solar (16MW) (50Ha)
- 61. Barnby Moor Solar (5MW & 4MW) (10Ha)
- 62. West End Farm, Tresswell Solar (17MW) (16Ha)
- 63. West Burton A Power Station⁵⁷ (212Ha)
- 64. West Burton B Gas Power Station (1,332MW) (20Ha)
- 65. West Burton National Grid Substation (4Ha)
- 66. Cottam Development Centre Gas Power Station (445MW) (27Ha)
- 67. Cottam Coal Power Station (188Ha)
- 68. Cottam National Grid Substation⁵⁸ (13Ha)
- 69. J G Pears Combined Heat & Power Plant (42MW) (10Ha)
- 70. High Marnham National Grid Substation (7Ha)

Major Local Plan Allocations & Major Developments (0MW) (307Ha)

- 71. Cottam Priority Regeneration Area (120Ha⁵⁹)
- 72. EM008a - Former Bevercotes Colliery (80Ha)
- 73. HS13 - Ordsall South, Retford Urban Extension (107Ha)

Existing and Operational Other Infrastructure (0MW) (446Ha)

- 74. Rampton High Security Hospital (40Ha)
- 75. Gamston Airport (174Ha)
- 76. Bevercotes Colliery Site⁶⁰ (31Ha)
- 77. High Marnham Power Station Site⁶¹ (63Ha)
- 78. Ranby Prison (26Ha)
- 79. Sturton le Steeple Quarry (112Ha)

Schemes Under Construction

None

NSIP Proposals (400MW) (958Ha)

- 80. High Marnham Grid Substation (14Ha)

⁵⁷ West Burton A Power Station is no longer operational having closed in 2023 and is scheduled to be demolished over the next few years

⁵⁸ Cottam Coal Power Station is no longer operational having closed in 2019 and is currently undergoing demolition

⁵⁹ Cottam Priority Regeneration Area Allocation is 348Ha, the figures for the three existing entries in 66 to 68 have been discounted to avoid double counting of area, leaving a residual 120Ha to be counted under this heading

⁶⁰ This brownfield site remains undeveloped following demolition of the colliery

⁶¹ This brownfield site remains undeveloped following demolition of the former Power Station

- 81. Steeples Renewables Solar (400MW) (944Ha)
- 82. North Humber to High Marnham Overhead Line # (90km in length⁶²)
- 83. West Burton Nuclear STEP (?MW) (no additional land take would replace West Burton Power Station A)

Schemes with Planning Permission (143MW) (310Ha)

- 84. Bumble Bee, Saundby Solar (50MW) (155Ha)
- 85. High Marnham Solar (43MW) (58Ha)
- 86. Sturton le Steeple Solar (50MW) (97Ha)
- 87. West Burton BESS (no additional land take would go within existing West Burton Power Station site)
- 88. Cottam BESS (no additional land take would go within existing Cottam Power Station site)

Schemes Proposed (240MW) (433Ha)

- 89. Normanton Larches Solar (A614) (40MW) (88Ha)
- 90. Beckingham Solar (50MW) (84Ha)
- 91. Bole Solar (50MW) (71Ha)
- 92. Ranby, Five Lane Ends, Retford Solar (50MW) (90Ha)
- 93. Sutton cum Lound Solar (25MW) (49Ha)
- 94. Headon Solar (15MW) (31Ha)
- 95. South Leverton Solar (5MW) (10Ha)
- 96. Laneham Solar (5MW) (10Ha)
- 97. West Burton C BESS (no additional land take would go within existing West Burton Power Station site)
- 98. High Marnham BESS (no additional land take would go within former High Marnham Power Station site which has already been counted above)

Commentary

Existing and Operational Energy sites together with schemes under construction in this part of Bassetlaw amounts to 1,922MW and covers 1.58% (687Ha) of all land in this part of Bassetlaw⁶³.

Existing and Operation Energy and Infrastructure sites together with all schemes with planning permission or proposed would if they were all permitted and built would increase the energy

⁶² No area in hectares is counted because at present only a broad corridor is suggested rather than an area for the Order Limits

⁶³ These figures do not include any of the One Earth Solar project which does lie partly in Bassetlaw but has been counted in the figures for the Neighbouring area of Newark & Sherwood

output amount by around 40% to 2,705MW, and would cover 7.20% (3,141Ha) of this part of Bassetlaw.

North Kesteven (Western Part - West of A607) (976MW) (2,169Ha)

(note this part of North Kesteven covers approximately 21,680Ha)

Existing and Operational Energy (16MW) (6Ha)

- 99. Lincolnshire Energy from Waste Plant, North Hykeham (16MW)

Existing and Operational Other Infrastructure (0MW) (13Ha)

- 100. Morton Hall Immigration Removal Centre (13Ha)

Major Local Plan Allocations & Major Developments⁶⁴ (0MW) (138Ha)

- 101. E1 - Teal Park Strategic Employment Site (36Ha)
- 102. E3 - St Modwen Park, Witham St Hughs Strategic Employment Site (22Ha)
- 103. NK/WAD/004a - Land south of Station Road, Waddington (11Ha)
- 104. NK/WSH/002 - Land to the north of Witham St. Hughs (Phase 3) (69Ha)

Schemes Under Construction

None

NSIP Proposals (950MW) (1,974Ha)

- 105. Fosse Green Energy Solar and Grid Connection Corridors (350MW) (1,003Ha)
- 106. Leoda Solar Farm (500 to 600MW) (971Ha)

Schemes with Planning Permission

None

Schemes Proposed (10MW) (38Ha)

- 107. Hanley Farm, Beckingham Solar (5MW) (12Ha)
- 108. Whisby Road North Hykeham Solar (5MW) (26Ha)

Commentary

⁶⁴ We have not included any of the Lincoln Urban Extensions as although some of these are in this part of North Kesteven, they relate more to Lincoln which has been left out of our study area

Existing and Operational Energy sites together with schemes under construction in this part of North Kesteven amounts to 16MW and covers 0.02% (6Ha) of all land in this part of North Kesteven.

Existing and Operation Energy and Infrastructure sites together with all schemes with planning permission or proposed would if they were all permitted and built would increase the energy output amount some 61 times to 976MW, and would cover 10.00% (2,169Ha) of this part of North Kesteven.

West Lindsey (South-Eastern Part - South of A631 and West of A15) (2,154MW) (4,689Ha)

(Note this part of West Lindsey covers approximately 25,380Ha)

(Note the NSIP schemes which cross the Nottinghamshire and Lincolnshire boundary marked ^ that connect to the Bassetlaw River Trent Power Station Electricity Substations (High Marnham, Cottam & West Burton) are listed under West Lindsey)

(Note the online planning system for West Lindsey has no search capability by development type or keywords so the information for this area may be incomplete)

Existing and Operational (24MW) (19Ha)

109. Stow Park Solar (24MW) (19Ha) (North of A1500)

Schemes Under Construction

None

Major Local Plan Allocations & Major Developments⁶⁵ (0MW) (480Ha)

110. RAF Scampton Opportunity Area (480Ha)

NSIP Proposals (2,080MW) (4,142Ha)

111. Cottam Solar ^ (600MW) (1,270Ha)

112. West Burton Solar ^ (480MW) (788Ha)

113. Gate Burton Energy Park Solar ^ (500MW) (684Ha)

114. Tillbridge Solar ^ (500MW) (1,400Ha)

⁶⁵ We have not included any of the Lincoln Urban Extensions as although some of these are in this part of North Kesteven, they relate more to Lincoln which has been left out of our study area

Schemes with Planning Permission

None

Schemes Proposed (50MW) (48Ha)

115. Stow Park Solar (South of A1500) (50MW) (48Ha)

Commentary

Existing and Operational Energy sites together with schemes under construction in this part of West Lindsey amounts to 24MW and covers 0.07% (19Ha) of all land in this part of West Lindsey⁶⁶.

Existing and Operation Energy and Infrastructure sites together with all schemes with planning permission or proposed would if they were all permitted and built would increase the energy output amount by around 90 times to 2,154MW, and would cover 18.48% (4,689Ha) of this part of West Lindsey.

⁶⁶ These figures do not include any of the One Earth Solar project which does lie partly in West Lindsey but has been counted in the figures for the Neighbouring area of Newark & Sherwood