West Burton Solar Project

Written Summary of the Applicant's Oral Submissions & Responses at Issue Specific Hearing 1 and Responses to Action Points

Prepared by: Pinsent Masons LLP

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West Burton
SOLAR PROJECT

Issue Sheet

Report Prepared for: West Burton Solar Project Ltd.
Examination Deadline 1

Issue Specific Hearing 1 on 9 November 2023 Scope of Proposed development; Need, Site Selection and Alternatives; and Environmental Matters: Written Summary of the Applicant's Oral Submissions and responses to Action Points

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1. Welcome, introductions and arrangements for the hearings.	The ExA introduced the hearing and made some preliminary remarks.
2. Purpose of the Issue Specific Hearing and confirmation of those who notified the Examining Authority of a wish to be heard.	Purpose of the hearing is to address matters raised by the ExA following its consideration of the application documents. The following parties introduced themselves during ISH1: <u>The Applicant</u> • Claire Brodrick, Legal Director at Pinsent Masons LLP (solicitors for the Applicant) • Eve Browning, Senior Project Development Manager at Island Green Power • Si Gillett, Humbeat • Jane Crichton, Associate Director at Lanpro (planning and EIA consultants for the Applicant) • Dave Elvin, Island Green Power, Head of UK Projects at Island Green Power • Chris Jackson, Landscape Architect at Lanpro (Mr Jackson introduced himself at agenda item 5a) • Harry Fox, Ecologist at Clarkson & Woods (Mr Fox introduced himself at agenda item 5b) • Daniel Baird, Soils and Agriculture consultant at Daniel Baird Soil Consultancy Ltd (Mr Baird introduced himself at agenda item 5c) • Alice James, Archaeological consultant at Lanpro (Ms James introduced herself at agenda item 5d) • Rob Roughan, Transport consultant at Transport Planning Associates (Mr Roughan introduced himself at agenda item 5e) <u>Lincolnshire County Council</u> • Neil McBride, Head of Planning <u>Nottinghamshire County Council</u> • Stephen Pointer, Planning Policy Manager <u>West Lindsey District Council</u> • Russell Clarkson, Development Management • Alex Blake <u>7000 Acres</u> • Liz Garbutt • Mark Prior • Peter O'Grady

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	• Jeff Summers <u>Local Residents</u> • Simon Skelton
3. Scope of the Proposed Development a) Introduction The Applicant is asked to introduce the Proposed Development, covering the following: • Energy generation and storage • Grid Connection • Design, scale and layout parameters, including the approach to the 'Rochdale Envelope' • Construction Management • Overview of operations, including operational life span. • Decommissioning (Guide time: 10 minutes)	Ms Brodrick provided a summary of the components of the Scheme, noting that specific items are dealt with in subsequent agenda items. West Burton Solar Project is a nationally significant infrastructure project. It consists of three solar generating stations each with a capacity of over 50MV together with associated development. The Scheme comprises a number of land parcels which are described as West Burton 1, 2 and 3 in the DCO Application documents. The Scheme will generate large amounts of renewable energy and assist the government in reaching its policy target of 70GW of solar by 2035 and also achieve net zero by 2050. The Government's support of solar is set out in draft National Policy Statement EN-3 particularly the introductory paragraphs 3.10.1 and 3.10.2. The components or work numbers of the Scheme are set out in Schedule 1 of the draft DCO [APP-017]. Schedule 1 should be read in conjunction with the Works Plans [AS-003]. Article 3 of the draft DCO permits each work number to be carried out within the corresponding numbered geographical area shown of the works plans. The works number is restricted to the geographical location shown on those works plans. When constructing, operating, maintaining and decommissioning the Scheme, the Applicant must comply with the other provisions in the draft DCO including the requirements set out in Schedule 2. Chapter 4: Scheme Description of the Environmental Statement [APP-042] describes the Scheme in detail. Illustrative layout plans have also been provided as part of the DCO Application as an example of how the scheme could be configured within the established "Rochdale Envelope" parameters, at [APP-142] to [APP-145]. She then ran through the work numbers in Schedule 1 to the DCO, as follows: Work No. 1: Solar Photovoltaic Generating Stations at West Burton 1 (Work No. 1A), West Burton 2 (Work No. 1B) and West Burton 3 (Work No. 1C,); Which comprises the nationally significant infrastructure project. The remaining Work Nos. are "associated development", as follows: Work No. 2: Energy Storage Facility at the West Burton 3 Site; Work No. 3: On-site substations at each solar farm Site (Work No. 3A relates to West Burton 1; Work No. 3B to West Burton 2; Work No. 3C to West Burton 3 – the largest substation); Work No. 4: Works at the National Grid substation at West Burton Power Station to facilitate the grid connection, including access tracks to facilitate cable installation; Work No. 5: Grid connection cable works connecting the three Solar Farm Sites (Work No.1A – 1C) to the main on-site substation at West Burton 3 (Work No. 3C) and subsequently to the Point of Connection (POC) at West Burton Power Station (Work No.4) including the provision of access tracks, construction laydown areas (construction compounds), jointing bays and fibre optic communications chambers. Work No. 5 includes the construction of the parts of the grid connection located in proximity to the cable connections for the Gate Burton Energy Park and Cottam Solar Project (the 'Shared Cable Corridor'), that is why the cable corridor is wider in this area on the Works Plans [AS-003] Ms Brodrick also noted that the Tillbridge Solar Project would utilise some of this Shared Cable Corridor;

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	Work No. 6: Works associated with the construction of the Scheme, including fencing, boundary treatment and other means of enclosure; the provision of security and monitoring measures, drainage, construction compounds, etc. Work No. 7: Temporary construction and decommissioning laydown areas within each of the solar array Sites and works associated with these including areas of car parking; site and welfare offices and workshops required during construction Work No. 8: Works to facilitate both temporary construction access, and permanent access to the Solar Farm Sites and Cable Route Corridors (including the Shared Cable Route Corridor); Work No. 9: Works to create and maintain Habitat Management Areas to the east of West Burton 2; Work No. 10: Works to create and maintain Habitat Management Areas to the west of the southern extent of West Burton 2; and Work No. 11: Work to provide a permissive footpath, being provided as an enhancement measure. The Scheme also includes further associated works required for a project of this scale, including footpath diversions and enhancement; site establishment works, as well as various mitigation measures set out in the Environmental Statement [APP-039 to APP-061]. Ms Brodrick added that the wording of Schedule 1 is fairly detailed and intended to cover all the different elements that are required for the Scheme. The components of the Scheme outlined above were used as the basis for Scheme assessed in the Environmental Statement [APP-039 to APP-061]. Rochdale Envelope As set out in section 4.3 of Chapter 4 of the ES [APP-042], the need for flexibility in design, layout and technology is recognised in National Policy Statement EN-1 as elements of a development may not be finalised for these types of energy generation project at this stage in the process. To accommodate flexibility, a 'Rochdale Envelope' approach is used, as described in the Planning Inspectorate Advice Note 9 (Ref 4.2). This involves assessing the maximum (and where relevant, the minimum) parameters for the Scheme where flexibility needs to be retained, whilst ensuring all potentially significant effects (positive or adverse) are considered. The principles and justification for this approach are set out in Chapter 2: EIA Process and Methodology of the ES [APP-040]. The maximum design parameters are identified from the range of potential options for each design parameter for the Scheme. The maximum design scenario assessed is therefore the scenario which would give rise to the greatest potential impact across various different topic areas. The maximum design scenarios are then secured in the Concept Design Parameters and Principles document [APP-322] which is secured by Requirement 5 in Schedule 2 to the draft DCO [APP-017], the means by which the Secretary of State can be satisfied that the Scheme will be built out as assessed and in accordance with the parameters that were set in the Environmental Statement. Table 4.1 in Chapter 4 summarises the optionality or flexibility being sought for the Scheme. This includes the ability to use fixed or tracker panels and a range of solutions for the energy storage fire suppression system. In each case, the ES has assessed the worst case scenario for each ES topic. This flexibility is required to enable micro-siting during construction to reflect technological advancements or changes in the plant design that may occur between the pre-application stage and the point of construction. Documents [APP-314] and [APP-315] set out further detail on the design of the Scheme. Section 5 of that document describes the design evolution of the Scheme. Construction Management The detailed design of Work Nos 1, 2 and 3 must be approved by the relevant planning authority in respect of layout, scale, ground levels, external appearance, hard surfacing materials and vehicular access prior to commencement of the Scheme, pursuant to Requirement 5 of the draft DCO. This provides another level of control over the higher-level detail provided as part of the DCO application. The detailed design must comply with the principles and parameters set out in the Concept Design Parameters and Principles [APP-322] as various design principles have been secured via this document.

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	She noted, to make the ExA aware, that following discussions with the Canal and River Trust, Requirement 5 and the Concept Design Parameters and Principles will be updated at Deadline 1 to secure a requirement for the drilling of the grid connection cables beneath the River Trent to be at a minimum depth of 5m. *Post hearing note: The Applicant has submitted an updated version of the Concept Design Parameters and Principles document at Deadline 1 [EX1/WB7.13_A]. Additionally, Requirement 5 in Schedule 2 to the draft DCO has been updated.* Environmental impacts resulting from the construction of the Scheme have been assessed in each of the topic chapters in the ES [APP-039 to APP-061]. Where mitigation measures to avoid or reduce construction impacts are required, these are set out in the Outline Construction Environmental Management Plan (or 'CEMP') [APP-309]. The preparation and approval of the contents of this outline plan are secured through Requirement 13 in Schedule 2 to the Draft Development Consent Order [APP-017]. In summary, Requirement 13 provides that no part of the authorised development may commence until a CEMP for that part has been submitted to and approved by the relevant planning authority (or authorities). The final CEMP must be substantially in accordance with the Outline CEMP [APP-309]. In respect of construction traffic impacts specifically, an Outline Construction Traffic Management Plan (or 'CTMP') has been prepared to support the application [APP-127] which is secured through Requirement 15 in Schedule 2 to the draft Development Consent Order [APP-017]. The outline management plans and a range of others are live documents throughout the examination process. Ms Brodrick noted that updated versions of those documents will be submitted at Deadline 1 and throughout the examination process, as required. The outline CTMP submitted as part of the DCO application provides a framework for the management of construction vehicle movements to and from the Scheme, to ensure that the effects of the temporary construction phase on the local highway network are minimised and the movement of equipment is efficient. Requirement 15 operates in the same way as Requirement 13, in that no part of the authorised development may commence until a CTMP for that part has been submitted to and approved by the relevant planning authority (in consultation with the relevant highway authority and, for Work No 1C, Network Rail given the proximity of NR's infrastructure). The final CTMP must be substantially in accordance with the Outline CTMP [APP-127]. There have been discussions with the local authorities regarding which authority would be best placed to discharge each requirement. This has been agreed, and the DCO will be updated accordingly at Deadline 1. *Post-hearing note: Schedule 17 to the DCO has been updated at Deadline 1 [EX1/WB3.1_A]. Additionally, updated versions of the Outline CEMP [EX1/WB7.1_A] and Outline CTMP have been submitted at Deadline 1 [EX1/WB6.3.14.2_A].* There are a number of other management plans which will control impacts of the Scheme during construction, each of which are secured through other requirements in the DCO [APP-017]. Outline plans have been provided as part of the DCO Application and again the final version must be substantially in accordance with the outline plan. This includes: • Landscape and Ecological Management Plan [APP-311] (secured by Requirement 7); • Ecological Protection and Mitigation Strategy [APP-326] (secured by Requirement 8); • Details of fencing and other means of enclosure (secured by Requirement 10); • Biodiversity net gain strategy (secured by Requirement 9); • Surface water and foul water drainage scheme [APP-089] (secured by Requirement 11); • Public Rights of Way Management Plan [APP-009] (secured by Requirement 18); • A Soil Management Plan [APP-138] (secured by Requirement 19); and

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	• A Skills, Supply Chain and Employment Plan [APP-319] (secured by Requirement 20). Ms Brodrick noted that the reason the plans are produced in outline is so that the final plan can reflect the final detailed design and make sure the most up-to-date methodologies are used at that time. Ms Brodrick also noted that outline plans are prepared as part of the Rochdale Envelope approach, with the approval of detailed plans secured in the requirements of the DCO. This differs to the position for archaeology and cultural heritage, where a final written scheme of investigation has been provided and is secured by Requirement 12. In addition, a community liaison group must also be established prior to commencement of construction of the Scheme pursuant to Requirement 4. This is to manage the way information is supplied to the local community before and during construction. Operational Management Similarly to construction, environmental impacts resulting from the operation and maintenance of the Scheme have been assessed in each of the topic chapters in the ES [APP-039 to APP-061]. Where mitigation measures to avoid or reduce operational impacts are required, these are set out in the Outline Operational Environmental Management Plan [APP-323] (OOEMP), secured through Requirement 14 in Schedule 2 to the Draft Development Consent Order [APP-017]. The following management plans will also control impacts during the operation of the Scheme, each of which are secured through requirements in the DCO [APP-017]: • Battery Storage Safety Management Plan [APP-318] (secured by Requirement 6); • Surface water and foul water drainage scheme [APP-089] (secured by Requirement 11); • An operational noise assessment (secured by Requirement 16); • As well as some of the topics relevant for the construction period, which also have ongoing commitments, such as Landscape and Ecological Management Plan [APP-311] and the Soil Management Plan [APP-138]. Decommissioning Decommissioning of the Scheme is secured through Requirement 21 in Schedule 2 to the DCO. A Decommissioning Plan must be prepared in accordance with the Outline Decommissioning Statement [APP-310] and approved by the relevant planning authority to ensure the potential decommissioning impacts are minimised. Similar mitigation measures as were required for construction are envisaged to be required for decommissioning, having regard to legislation, guidance and best practice at the time. In order to address concerns raised in relevant representations about the Scheme potentially being in situ in perpetuity, Requirement 21 will be amended in the updated draft DCO submitted at Deadline 1 which will require decommissioning to take place within 60 years of the final commissioning date of the Scheme. Ms Brodrick noted that this is consistent with the amendments made by the Cottam Draft DCO as submitted at their Deadline 1. A 60-year period has been chosen to provide flexibility for the Scheme to continue operating where the solar PV panels continue to generate electricity after the average lifespan of 40 years referred to in the Environmental Statement has passed. The ES has assessed the average operational period for solar farms based on current technology of 40 years, on the basis that decommissioning would not take place before 2066. However, we do not consider that there is a reason to have a strict cut of at 40 years if the panels are still operational, whilst including the 60 year time limit in the DCO to address the concerns that had been raised. *Post hearing note: Requirement 21 in Schedule 2 to the draft DCO has been updated [EX1/WB3.1_A].* The ExA asked how good design criteria had been embedded into the Scheme to date, and how it would guide detailed design of the Scheme and the approval of requirements by the local authorities.

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	Ms Brodrick responded that the Design and Access Statement [APP-314], section 4 sets out the vision for the Scheme and the objectives in terms of good design to comply with the NPS policy requirements on good design for projects of this nature. The Concept Design Parameters and Principles document [APP-322] sets out both the identified design principles, and the actual parameters in terms of height, length, depth etc. that the Scheme has been designed to, and identifies which are principles and which are parameters. Compliance with this document is secured through Requirement 5 of the DCO. This specifies the design parameters and principles for each work number and allows the relevant Planning Authority to check against those principles when discharging the design detail. The ExA responded that she expected that the consideration of good design in the Scheme would be explored further in the Examination, being guided by the National Planning Policy Framework (NPPF) and submissions by the local authorities. Ms Brodrick further noted that the NPS, not the NPPF, is the primary policy document for the Scheme in respect of good design. In relation to decommissioning, the ExA asked the Applicant to address the 40-year ES assessment and the 60-year time limit in requirement 21 in terms of there being a potential disparity of impacts as between a 40 year assessment and a 60 year time limit. Ms Brodrick responded that the Environmental Statement clearly set out that a time limited consent was not being applied for. However, for the purposes of the assessment of decommissioning impacts, a typical operational life based on current technology was assumed, which was 40 years. As part of the process of deciding how we could amend the DCO to address concerns, we considered that a 60 year period would be appropriate and in keeping with other solar projects currently. The Applicant's undertaken a review of the environmental topics to consider this, and the results were that it would not affect any conclusions, but more detail will be provided. Ms Crichton confirmed that this assessment of the Environmental Statement conclusions would be submitted at Deadline 1. *Post hearing note: Please see the Applicant's response to Action Point 1 below.*
b) Generating capacity and relationship with electricity exported The Applicant is asked to outline the overall generating capacity of the Proposed Development and to explain the relationship between the generating capacity and the electricity exported, including reference to minimum and maximum capacities.	Ms Brodrick provided an overview of the position in the draft DCO. The draft DCO seeks development consent for three generating stations each with a capacity of over 50MW, the threshold for a generating station under the Planning Act 2008. There is no maximum capacity or capacity cap in the draft DCO and this approach is consistent with the DCOs recently granted for renewable energy generation including the three granted solar DCOs (The Cleve Hill Solar Park Order 2020, The Little Crow Solar Park Order 2022 and The Longfield Solar Farm Order 2023) and numerous offshore wind farm DCOs (The Hornsea Three Offshore Wind Farm Order 2020, The Hornsea Four Offshore Wind Farm order 2023, The Norfolk Vanguard Offshore Wind Farm Order 2022, The Norfolk Boreas Offshore Wind Farm Order 2021, The East Anglia 1 Offshore Wind Farm Order 2014 and The East Anglia 2 Offshore Wind Farm Order 2022, The Awel Y Mor Offshore Wind Farm Order 2023). She then noted that the approach of not including a maximum capacity is also referred to in Paragraph 3.10.47 of draft EN-3 which states that there is no need to limit generating capacity given that the impacts of the Scheme will be limited by the use of the Rochdale Envelope approach. Paragraph 3.10.47 states that *"… export capacity should not be seen as an appropriate tool to constrain the impacts of a solar farm. Applicants should use other measurements, such as panel size, total area and percentage of ground cover to set the maximum extent of development when determining the planning impacts of an application".* She noted that the position is different for non-renewable energy generation, where caps are applied. This relates to additional statutory obligations that apply to generating stations over a certain capacity, such as for requirements for CCUS installation, differentiating them from solar and other renewable technologies. There is a justification for caps being applied to those sorts of developments that do not apply to renewable energy. Mr Gillett then set out the Applicant's position on the generating capacity of the Scheme and the level of electricity exported from the Scheme.

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	Mr Gillett noted that, as mentioned by Ms Brodrick, para 4.2.1 of ES Chapter 4: Scheme Description [APP-042] confirms capacity will be over 50MW but the Applicant has not specified the generating capacity of the Scheme or included a maximum capacity. However, paragraph 2.1.3 of [APP-316] (Grid Connection Statement) confirms that the Applicant has agreed with National Grid, a Transmission Entry Capacity (TEC) of 480MW export to the Grid and 20MW import from the National Electricity Transmission System (NETS) to the Scheme. This allows the Applicant to export up to 480MW of electricity produced across the three Sites, West Burton 1, 2, and 3, and import up to 20MW of electrical energy to be stored in an Energy Storage Facility. The final generating capacity of the Scheme, if consented, would be dependent on: 1. Area of Work No 1 described at 4.2.4 of [APP-042] Scheme Description and the controls agreed as part of the DCO around deployment of solar panels on that Area, including any agreed mitigations resulting in a subset of Work No 1 which is 'developable area' for solar panels, substation and associated infrastructure; and 2. The detailed design and technology choice including panel orientation, spacing and panel selection. Section 3.3.19 of the Statement of Need [APP-320] describes, from paragraph 2.48.8 of the Draft NPS EN-3 (2021) (also referenced in 2023 draft NPS EN-3 at 3.10.46), that overplanting may be used to account for light induced degradation of solar panels. Overplanting means installing a greater capacity of generation 'at the panel' than the grid connection will allow. There are other advantages to overplanting and these are described at Section 7.7 of Statement of Need [APP-320]. However, overplanting has commercial and technical limits, and is generally commercially and technically rational up to a factor of between 1.3 and 1.5 (being the factor of installed MW capacity 'at the panel' divided by export connection capacity) but of course is subject to site-specific factors, constraints and developer approaches. The principle which would guide the Applicant at a detailed design stage, is one of maximising the lifetime annual generation of the Scheme through the available grid connection point and from the available area, but it is important to note that this is not the same as "squeezing in" as many panels as possible into the Work No.1 area. Mr Gillett confirmed that the Applicant has not proposed an overall generating capacity of the Scheme, nor a maximum capacity. Mr Gillett then turned to describe the electricity exported from the Scheme. The amount of electricity generated by a scheme each year, as a proportion of its installed capacity, is called its "Load Factor". Solar technology uses incident irradiation from the sun to generate electricity, which has two implications. Firstly, the Scheme will not generate electricity on demand and will generate during daylight hours only. Secondly, the Scheme will not generate electricity at the same rate at all times. Generation output will be higher, the sunnier it is. The factors which influence how effective a scheme will be in generating electricity are: its location, its choice of panel, their orientation and layouts, and the weather. Mr Gillett explained that when a scheme is overplanted it will always generate more electricity at the panels, than a 'unitary' scheme (ie. one which is not overplanted) simply because overplanted schemes use more panels than 'unitary' schemes. Most of the time all of the electricity an overplanted scheme will generate will be able to be exported to the grid without being what is called 'clipped' but sometimes, when irradiation is very high, some electricity will be 'clipped' and will not be able to be exported to the grid. When the incremental electricity exported to the grid by an overplanted scheme versus the electricity exported to the grid by a unitary scheme, is much greater than the electricity 'clipped' at that scheme at times of high irradiation, then overplanting will deliver a benefit and the overplanted scheme will have a higher Load Factor at the grid than a unitary scheme would.

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	Mr Gillett went on to note that data tells us roughly what the load factor of solar facilities in the UK has been, and should be going forward. The Government's Digest on UK Energy Statistics (Table 6.2, June 2023) tells us that on average in the UK since 2016, solar has achieved a load factor of 10.3%, but has varied from 9.9% to 11.1% over those seven years. 10.3-10.5% is a good approximation of the level of generation from this site. DUKES data also tells us that on average a 1MW installation in the UK will have generated 1 (MW) x 8,760 (hrs) x 10.3% = 902 MWh. This can also be expressed as '902MWh/MW(p)' and is the same level as 10.3% but is another way of expressing load factor. He noted that this will be explained further in a written submission. *Post hearing note: Please see the Applicant's response to Action Point 2 below.* Most facilities in the UK are oriented as 'Fixed South Facing' facilities. Panels are installed in a fixed position, facing broadly south, and are tilted, depending on location and local land topology, to optimise the incident irradiation throughout the day and the year. The Statement of Need [APP-320] uses load factors at Table 7.1 and Figure 7.4. This map (Figure 7.4) shows load factor potential for a south facing scheme at the Scheme's location to be 10.8% - 11.7%. This is higher than the national average. Paragraph 4.3.3 of the ES Chapter 4 Scheme Description [APP-042] advises that "*Whilst it is likely that the Scheme will utilise tracker solar panels, optionality is included within the application to be able to utilise fixed panels*". He went on to explain that tracker panels are mounted on horizonal axes which run north-south, so in the morning the panels face east and they track the sun as it moves across the sky and therefore has a greater load factor than a fixed south-facing scheme. Tracker panels tend to use more land than fixed south facing panels, meaning that the capacity of fixed south facing panels which can be installed on a fixed area of land would be higher than the capacity of single axis tracker panels. However, because tracker panels are more effective at picking up sunlight than fixed south facing, each tracker panel achieves a higher load factor than each fixed south facing panel. He noted that Environmental Statement Chapter 6: Climate Change [APP-045] at paragraph 7.8.61 implies a Load Factor of 13.8% (583GWh on 480MW generating capacity per year) which is consistent with data for schemes with similar characteristics. To summarise, the load factor of a scheme is dependent on technology and location, and the expected load factor for the Scheme is higher than the national average for schemes to date. The use of single access tracker panels will further increase the load factor of the Scheme and therefore it annual generation. The ExA asked about the 480 MW export figure and whether that is fixed. Mr Gillett confirmed it is fixed under the terms of the existing Grid Connection Agreement. In response to Mr Summers question regarding how the Applicant has calculated that the load factor average is expected to be higher than the UK average, Mr Gillett explained that the Applicant had used the Government's modelling on average load factor for UK schemes, and said that he would explain in greater detail later in the agenda. Mr Gillett noted that the solar generation potential of sites is based on satellite radiation data collected over a period of years, which is converted through many types of software packages in order to estimate annual generation. In response to points made by Mr O'Grady relating to the relative impact on load factor of geographical location and panel type, Mr Gillett responded that the Applicant does not disagree that location is important, hence the selection of the location for the Scheme. Single axis tracker panels collect more sunlight than fixed south-facing solar panels, although that is a separate point to location. He requested written evidence be provided by Mr O'Grady in relation to the points made on load factor so that the Applicant could review and repsond.

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	Ms Brodrick noted that site selection principles will be covered later in the agenda. She noted that the Applicant is not disagreeing that there are higher levels of irradiation in other parts of the country. However, there are suitable levels of irradiation at this location and the fact that there are higher levels elsewhere does not preclude this being a suitable location for the Scheme. The ExA asked about overplanting and requested more information on clipping and how overplanting is managed in terms of generating capacity. Mr Gillett explained that clipping is managed by the installation itself, if more energy is generated than the export capacity the installation has, the system on site will work to stop energy being transmitted to the Grid. He agreed that clipping creates a reduction in the effectiveness of a facility, however, it is caused by an increase in the effectiveness of the facility, by overplanting. He explained if we had a 480MW of panel on a 480MW grid connection, there would be no overplanting but if more generation capacity was put into that facility, then some amount would be clipped. The number of times clipping occurs is less than the benefits that are gained in terms of MWh from overplanting. He described it as being analogous to driving at 56 mph versus 70 mph, one gets there faster but uses more petrol. He reiterated that in terms of the benefits of overplanting, there is not a significant reduction to that overall benefit. In response to further questions from the ExA regarding the relationship between overplanting and the design process, Ms Brodrick explained that the Scheme aims to deliver 480MW throughout daylight hours as efficiently as possible. The Applicant is therefore seeking to maximise the generating capacity of the Scheme and achieve the most generation throughout the course of the day. Overplanting means that, unlike for a unitary scheme, 480MW of electricity could be generated even when all of the panels are not operating at their maximum capacity. However, the consequence is that when the panels are operating at maximum generating capacity, some of the electricity will be clipped. The spatial parameters therefore have been based on maximising the electrical generation throughout the course of the day balanced with trying to limit the amount of clipping. Ms Brodrick noted that site selection will be discussed further later. The ExA further questioned how tightly or loosely the design parameters are in terms of the physical extent of the Scheme. Mr Gillett explained that the maximum installed capacity does not have to be 480MW, and it makes sense for it not to be. He noted that overplanting does not change the parameters set out in the application in the Rochdale Envelope approach, which have formed the basis of the Environmental Statement and are part of the Scheme as applied for. In response to points raised by Mr O'Grady in relation to overplanting and efficiency of land use for ground mounted solar, Mr Gillett provided a summary, with detail to be provided in writing. He noted that up to an overplanting ratio of 1.3 and 1.5, there are insignificant reductions in at the panel load factor, because there are more hours when we are not "basking in sunlight" (when clipping is not an issue), compared with the small number of times when we are. Above this 1.3 and 1.5 limit, overplanting does start to reduce load factor materially. *Post hearing note: Please see the Applicant's response to Action Point 2 below.*
c) Role of the Energy Storage System and its capacity The Applicant is asked to outline the role and purpose of the energy storage system and its capacity.	Mr Gillett provided information on the role and purpose of the Energy Storage System. At paragraph 3.3.25 of the March 2023 draft Revised Overarching National Policy Statement for Energy, EN-1, Government sets out the emerging policy position in favour of energy storage: "*Storage has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated*." A key characteristic of electricity systems is that supply and demand need to be balanced at all times. Flexibility, which storage delivers, is needed at a consistent level to deliver that balance.

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	Flexibility is also needed to maximise the use of renewables when there is an abundance of generation, and to fill the supply gaps in periods of shortfall (when there is a shortfall, it can be released from storage), thus reducing the total amount of generating capacity required to meet peak demand and reducing the need for new network infrastructure. Co-located storage such as is proposed for the Scheme can store energy when it is generated by the Scheme and release it to the grid when it is needed, as well as storing energy from the grid. He further noted that Energy Storage Systems also provide the function of responding to fluctuations in supply and demand by providing essential Ancillary Services support to the Electricity System Operator in their operation of the UK's electricity system. Energy Storage Systems therefore support decarbonisation by storing abundant renewable energy; provide energy security benefits; and delivery affordability benefits for the UK's electricity consumers. He noted that Energy Storage Systems can be 'Short Duration' – which are designed and optimised to operate on timescales of milliseconds to hours, or days, or 'Long Duration' – which could operate from week-to week or even interseasonally. Different technologies are expected to deliver the UK's range of storage needs and the Applicant confirms at paragraph 4.5.23 of Environmental Statement Chapter 4: Scheme Description [APP-042] that "*The DCO Application and this ES assumes that the form of energy storage will be battery storage*" or "BESS", a 'Short Duration' storage technology. The purpose of the BESS at the Scheme is to support the solar scheme both in its operation specifically, and to support, the integration of the Scheme into the UK's electricity system. In relation to the proposed capacity of the system, it is relevant to explain that all Energy Storage Systems require two-way (import and export) connection capacity to the electricity system to be able to operate. The size therefore of the import connection secured by connection agreement with National Grid at the point of connection is therefore an important input into the maximum power capacity of any proposed Energy Storage System. He noted that there are other physical parameters that may limit specific elements of the scheme, including parameters which may have the effect of capping the energy capacity of the proposed BESS. For the Scheme, this is 20MW of import connection. Paragraph 7.8.26 of the Environmental Statement Chapter 4: Scheme Description [APP-042] states that "*The assessed MWh battery storage has been assumed to be 159MWh*". Mr Gillett likened this to a 20MW capacity system that could store 8-hours' worth of full export capacity at once. However, the Applicant notes that it is not necessary, and neither is there a policy requirement, for energy storage systems to be co-located with renewable generation schemes. The Applicant refers to paragraph 3.10.2 of the March 2023 draft NPS EN-3 in which it is stated that Government "*is supportive of solar that is co-located with other functions [and storage is specifically mentioned] to maximise the efficiency of land use*". The Applicant extends this benefit of co-location not only to land use, but also to grid connection capacity. Therefore, including BESS proposals as part of the Scheme to make best use of available infrastructure at the West Burton substation is beneficial for decarbonisation, energy security and affordability, and is necessary for the use of all existing and available infrastructure to be optimised, to meet Government's decarbonisation targets and deliver benefits to security of supply and affordability. The ExA asked how the parameters for the BESS have been defined, given the rapid advances in BESS technology. Ms Brodrick referred to [APP-322], which sets out the parameters used for the ES which are therefore secured in the DCO. These relate, from a planning perspective, to the footprint and height of the BESS containers and other apparatus that are considered necessary. The Applicant looked at the type of infrastructure and the amount required to deliver the type of BESS that Mr Gillett has described. These information has then been used to define the maximum parameters for the infrastructure. The technology within these modules is likely to improve over time, but for the purposes of considering a worst case scenario in the EIA, the Applicant has considered the maximum parameters and number of modules for delivering a BESS of this size.

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	In response to points raised by Mr Prior regarding safety concerns regarding BESS fires and the capacity of the local fire and rescue service to deal with fire incidents effectively, Ms Brodrick responded that an Outline Battery Storage Safety Management Plan [APP-318] has been submitted and is secured in requirement 6 the draft DCO. The Applicant is working with Lincolnshire Fire and Rescue Service on the Plan, and notes that water storage options are included as part of the Scheme. The issues raised have been considered by the Applicant and have been taken into account in the Scheme's design. The Fire and Rescue Service have not raised any concerns to date as part of the Examination process. The Applicant notes that Mr McBride confirmed that there is ongoing dialogue between Lincolnshire Fire and Rescue Service and the Applicant, and fire safety can be considered in more detail later on in the examination. It is addressed in LCC's the Local Impact Report.
4. Need, Site Selection and Alternatives a) Planning Policy and Guidance; relevance of recent solar farm decisions To include consideration of the weight to be accorded to the relevant draft National Policy Statements (NPS); the extent to which local policies are important and relevant to both site selection and scheme assessment; and the relevance of recent solar farm decisions.	The ExA noted that the Applicant has stated in its application that the application will be considered under section 105 of the Planning Act 2008, given that, at the time of the application there was no designated technology specific NPS in place for solar schemes. The ExA asked the Applicant to describe the weight that should be accorded to the draft NPSs. Ms Brodrick responded that the Planning Statement [APP-313] sets out the Applicant's assessment of the Scheme against National and Local planning policy. The assessment of the Scheme against national policy is set out in the National Policy Accordance Table in Appendix C of the Planning Statement. This includes a review of the adopted NPSs EN-1, EN-3 and EN-5. It also includes a review of the draft NPS EN-1 and draft EN-3 published by the Government in September 2021. The Applicant will be submitting an updated version of the Planning Statement at Deadline 1 which reviews the Scheme against the revised draft NPSs published in March 2023 (which was after the submission of the DCO Application). Ms Brodrick confirmed that there are no material changes to the conclusions in the Planning Statement having had regard to the new policy. Draft EN-1 includes transitional provisions and states in Paragraph 1.6.3 that the emerging drafts are capable of being important in the decision-making process, stating that the extent to which they are relevant is a matter for the relevant Secretary of State to consider with regard to the specific circumstances of the particular application. The Secretary of State confirmed in the decision letter for the Longfield Solar DCO that both the adopted EN-1 and EN-5 and draft EN-1 and EN-3 were important and relevant to the decision made under s105 of the Planning Act 2008. In the Longfield decision the Secretary of State concluded that the solar project's contribution to the meeting the need for renewable energy set out in the NPSs should be given substantial positive weight in the planning balance. The Applicant considers this an appropriate comparison to the present Scheme, as it is a similar size. Ms Brodrick also noted that, in respect of local policy, the Central Lincolnshire Local Plan was adopted in April 2023 and the Planning Statement submitted at Deadline 1 will also account for this. *Post hearing note: In light of the publication of the revised Energy NPSs on 22 November 2023, the Applicant is reviewing the published versions and will update the Planning Statement at Deadline 2. This updated version will also include the adopted Central Lincolnshire Local Plan 2023.* In response to comments made by Mr O'Grady relating to a perceived lack of policy support for large scale ground mounted solar in the UK, and policies relating to hierarchy of land use and good design in draft NPS EN-3, Ms Brodrick stated that it is important to recognise that the NPSs apply predominately to NSIPs, so when it refers to solar farms, it is to support solar farms in excess of 50MW rather than solar generation generally, albeit that the NPSs are relevant to solar applications below the 50MW threshold. So, when we are referring to the Government being supportive of solar in EN-3, they are referring predominantly to over 50MW schemes, and the policy needs to be read in this context. She also noted that site selection will be considered in detail further down the agenda. The ExA requested the Applicant's view on consideration of BMV land in the approach taken to site selection.

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	Ms Brodrick responded that when considering site selection and alternatives, NPS EN-1 (March 2023 draft, paragraphs 4.2.21 – 4.2.28) sets out a number of considerations to be taken into account when considering alternatives. Alternatives need to be realistic and considered proportionately. They need to be able to deliver the same amount of generation and capacity within the same timescale as the proposed development, and there is no need to consider specific alternatives and sites, albeit that the Applicant should set out the alternatives that have been looked at and the reasons for selecting the site chosen. The policy must be read in conjunction with other legislative requirements, in terms of site selection this being the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 as to what needs to be contained in an Environmental Statement, and also in respect of site-specific considerations (such as flooding or HRA considerations). Therefore, there are other requirements that apply to considering alternatives as well as the general approach in EN-1. Draft EN-3 (from paragraph 3.10.9) sets out factors that should influence solar site selection. The Applicant has set out its approach to site selection in Environmental Statement Chapter 5: Alternatives and Design Evolution [APP-043]. That includes detail of the staged site selection process, with further detail provided in Appendix 5.1 [AS-004]. Section 6.3 of the Planning Statement [APP-313] also summarises the site selection process. Ms Brodrick then described the site selection process, noting it is described in detail in Appendix 5.5. Stage 1 involved identifying a search area. This area was around the grid connection agreement point, being the 480MW connection at West Burton. Stage 2 involved identifying all brownfield sites within 15km of that connection point, with sites located closer to the connection point being considered first. There was also consideration of agricultural land and of Natural England's mapping of agricultural land classifications. At this stage of the process, the focus was to find suitable sites within areas of Grade 4 or 5 or unclassified agricultural land as well as the availability of brownfield sites. She referred to the sites identified in Table 2.2 of Appendix 5.1., which employed a minimum site specification of 40 ha and include brownfield land. This minimum size threshold for a particular site meant that sites could then be linked together to produce an overall site for 480MW capacity the Applicant was looking at for West Burton. That table lists out various brownfield sites and their sizes. Many of the brownfield sites were either too small or had already been allocated for another type of use and therefore were not available. The Applicant did therefore not consider those sites to be available for this Scheme and therefore did not take those sites forward. Additionally, the Applicant considered sites made up of lower grade agricultural land, and none of the required size were available within the study area. The Applicant also looked to see whether there were any combined premises of the required size, and none were identified as available or the correct size/scale. The Applicant also considered commercial rooftops of an adequate size, and none were identified as available. Ms Brodrick noted that the Applicant agrees that rooftop solar is desirable and should be deployed, but that this must be in addition to ground mounted large scale solar, as it is not a viable alternative to this. This is because we are discussing generating at a national grid scale, rather than for a more local distribution network. She added noted that, if it would be helpful, the Applicant can provide more information about the distinction between the requirements for the National Grid versus individual and smaller-scale projects. At Stage 4 of the site selection process, other environmental constraints were considered, including cultural heritage, biodiversity, landscape, flood risk, land use, transport etc. At this stage, no brownfield or lower grade sites (grade 4 and 5) within the search area that met the requirements for this size of scheme were identified, so the grade 3 land within the search area was then considered. This excluded land already being considered for other nationally significant solar projects. A process was also undertaken to identify landowners who were willing to enter into voluntary agreements with the Applicant, with a focus on those who owned multiple sites so could provide a number of suitable site holdings. Landowners were contacted to try and identify suitable landholdings for the project, and identified sites were taken through Stage 4 of the site selection process. The results of the site selection process are set out in the Annex in Appendix 5.1 [AS-004]. The Applicant continued to consider the suitability of the sites during the pre-application process, as more survey data became available. The assessment of sites in relation to land classification was undertaken using Natural England's mapping, which does not distinguish between grade 3a and 3b land. The Applicant then undertook its own surveys to establish the grading of the land. Some BMV land was removed from the Scheme's site as a result of assessing that information. Ms Brodrick noted the removal of the West Burton 4 site between statutory consultation and DCO application submission as a result of consultation feedback and survey information.

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	73.76% of the land is non-BMV and has been maximised. Where BMV land is included within the Order Limits, the application documentation provides justification as to why its inclusion in the Order Limits is appropriate, such as where the pockets of BMV land are isolated and small. The Applicant notes that, as far as practicable, the Applicant has taken into account the requirements of NPS EN-3 in relation to brownfield land and BMV land. The ExA asked for rationale behind the 40 ha area for sites and the grid connection location. Mr Elvin responded that 40 ha is the amount of land required for a c.50MW solar scheme. Substations are required on each site, so if there are more sites then more cables and infrastructure are required, reducing the efficiency of the Scheme both electrically and commercially. In terms of the grid connection, the transmission network was initially designed for power to generated and then inputted at the 400kv level, and then distributed out through the local networks, and there is grid capacity around the Cottam and West Burton power station to do this. When looking at a map of the UK, there is often capacity around old power stations, that does not require big upgrades to network transmission assets. In response to comments made by Mr Summers relating to unproductive land, the location of the National Grid's existing connection infrastructure driving site selection for solar parks, and alternative energy generation technologies, Ms Brodrick noted the comments raised relate to grid connection availability at the distribution network level. For this particular Scheme, the matters that are relevant to the Secretary of State's consideration of alternatives and site selection are set out in NPS EN-3 paragraphs 3.10.34 – 39. Here it is recognised that connection to the transmission network is a key consideration, and that there is a policy objective to maximise existing grid infrastructure as part of this. Therefore, selecting sites based on nearby grid export capacity is relevant to site selection process. This drove the site selection process being located around the West Burton power station. In response to further points raised relating to the grid connection location and the Applicant's site selection process, Ms Brodrick responded that where land is earmarked for use for other schemes, it is not considered to be available for this Scheme. Simply because other land is considered suitable for solar does not mean it is available for this Scheme. This should all be considered in the context of the need to deliver 70GW of solar by 2035. In respect of the comments relating to considering a different grid connection point and the ability to put forward a number of smaller schemes, she noted that the Scheme being considered was for a single point of connection of 480MW and utilising that existing national grid export capacity at West Burton A power station, rather than multiple points of connection to the grid at different locations across the distribution network. Mr Skelton raised a query relating to a new scheme located in close proximity to West Burton A Power Station and queried why the Applicant has not considered this site as a potential location. Mr Elvin responded that, in respect of the other scheme referred to, the Applicant spoke to the landowner during the site selection process for the Scheme who stated then that the land was not available, so it was discounted at the time. He also noted the Applicant's discussions with National Grid around the re-enforcement works required to the grid which preclude the types of connection described by Mr O'Grady and Mr Summers. Local Policy The ExA requested comments on the importance and relevance of local policies to the Scheme. Ms Brodrick noted that local policy is considered to be important and relevant, and as such has been considered in the application for the Scheme, albeit with greater weight being afforded to national policy. The relevant policies from the Adopted Central Lincolnshire Local Plan are policy SP14 on renewable energy which supports the transition to a net zero carbon future and will seek to maximise appropriately located renewable energy generation in Central Lincolnshire. There is a specific part of the policy on ground mounted solar which states a presumption in favour unless specific factors apply. The assessment of the Scheme against local planning policy is set out in the Local Planning Policy Accordance Tables contained within Appendix D of the Planning Statement [APP-313]. Mr Clarkson agreed with the Applicant that the Adopted Central Lincolnshire Local Plan is important and relevant. Mr McBride concurred with this, and noted that the Local Impact Report (LIR) will consider the policies relevant to each topic area. He noted that the Statement of Common Ground (SoCG) is

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	a work in progress, as is common across the NSIP projects across the local area, and is still in fairly early stages. He also noted that mineral safeguarding would also be covered in the LIR. Mr Pointer echoed Mr McBride's comments that adopted local plan policies are important and relevant and generally in conformity with national policy. He noted that the cable corridor which passes through a mineral safeguarding area now avoids a minerals site, which is welcomed and will be dealt with in the LIR. He also referred to renewal and redevelopment of the West Burton A Power Station site, which both Lincolnshire County Council and Nottinghamshire County Council are working with EDF to develop, and has recently been identified as a site for nuclear fusion to be promoted. He referenced the fact that the Scheme should not preclude this development coming forward, which will be dealt with in the LIR. The ExA asked about recent solar planning application and appeal decisions and how they relate to the Application. Ms Brodrick noted that she had referred to the Longfield Solar Farm decision earlier in the hearing, the most recent solar decision at the NSIP scale. She noted that the recent appeal decisions the ExA is referring to are each below the 50MW scale. Given the difference in the size of these schemes relative to the Scheme, the approach to planning balance is different. She noted the range of different appeal decisions resulting from individual inspectors applying different weight to different policies in applying the planning balance. This particular Scheme, given its scale and given the Longfield decision, the planning balance is weighted more in favour of the benefits of renewable energy compared with the below 50MW schemes, and thus some of the decisions taken should not be considered comparable to the Scheme. She also noted an upcoming High Court challenge relating to site selection on agricultural land for a below 50MW scheme. In response to points made by Mr O'Grady and Mr Prior relating to the alternative of rooftop solar installation and the Skidmore Review, Ms Brodrick noted that need will be dealt with in the next agenda item. She noted the slight conflating of points made by representatives for 7000 acres – the Applicant acknowledges support for rooftop solar but responds that rooftop solar is not a real alternative to the Scheme. She noted that there is an implication being made that support for rooftop solar means there is necessarily not a support for ground mounted solar. She reiterated the Applicant's position is there is a need for all forms of renewable energy generation. The Government specifically recognises that both are required, as evidenced in the inclusion of solar in draft NPS-EN-3. Rooftop solar does not meet the need in this location.
b) Need and Benefits. The Applicant is asked to set out their position.	Mr Gillett stated that the Applicant's case for the need for the scheme is set out in [APP-320] Statement of Need. He noted he would take that document as read and will not go over the ground it already covers, except he reiterated that the Scheme is needed to help deliver UK decarbonisation, increase UK security of energy supply, and deliver on the affordability of electricity to UK consumers. He noted that the world is warming due to increasing levels of atmospheric carbon. A press release by the World Meteorological Organisation on 17th May 2023 stated that there is a 98% likelihood that at least one of the next five years and the next 5-year period 2023-2027 as a whole, will be the warmest on record. They are sounding the alarm that we will breach 1.5-degree Centigrade global temperature increase, at least on a temporary basis, with increasing frequency. Decarbonisation is about stopping that from happening. The actions urgently needed to slow that warming are, firstly to stop emitting CO_2, and secondly to take CO_2 out of the atmosphere. And the urgency of action is increasing because the longer CO_2 emissions continue, the more there is in the atmosphere, the warmer the world will become, and the more we must then rely on CO_2 removal to limit further warming.

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	He noted that in June 2023 the Committee on Climate Change published their annual Progress Report to Parliament.[1] This report described a lack of urgency in the delivery of decarbonisation in the UK. Their summary, on page 14 of the report, states that the UK should stay firm on existing commitments to decarbonise, and move to delivery. The report states that "*To achieve the Nationally Determined Contributions [2030] commitments the goal of at least a 68% fall in territorial emissions from 1990 levels, the rate of emissions reduction outside the power sector must almost quadruple from what has been achieved so far*" … but "*Some of the key planks of the UK Net Zero Strategy have substantial lead-times*". This is important, because these two statements are incongruous. How can one "*urgently decarbonise*" if many of the technologies we are relying on to decarbonise, have "*substantial lead times*"? The Statement of Need discusses this question at Table 5.2 and Chapter 5. The answer is through the urgent delivery of proven renewable generation technologies including large-scale solar generation, that can be delivered in quick order to meet this need. Government has set a target of achieving a zero-emissions electricity system by 2035, to support the achievement of its legal requirement to achieve net-zero by 2050 by using electricity generated from low-carbon sources to displace carbon emitting fuels from other sectors. The urgent decarbonisation of the electricity system now will support the achieving of a quadrupling of carbon emissions reductions outside of the power sector and is an essential plank of the UK's decarbonisation strategy. He noted that renewable generation schemes must connect to existing electricity networks to deliver their benefits. If they do not connect, there is no benefit. On 10th July 2023, National Grid Electricity System Operator, or ESO, published their annual Future Energy Scenarios (FES) document, and on page 132 the ESO state that sufficient electricity connection capacity is vital to support solar capacity projections.[2] Over 15GW of solar is generating clean and zero-carbon electricity in the UK, but it is not yet enough. National Grid's FES 2023 pathways indicate that up to 90GW of solar is needed by 2050. The Government has committed to supporting 70GW by 2035. The implication is that there is not yet sufficient solar generation to meet net zero requirements. Also, there is not currently sufficient available electricity connection capacity to support Government's ambition on solar and therefore that it will already be very difficult to meet that commitment, despite the fact that the business case for solar generation is currently strong. He added that the projections are alongside other ambition projections for other low carbon and renewable generation capacity increases. To be successful in our fight against climate change we need to make the most of the infrastructure which is already and currently available, and this context provides further support for the Applicant's proposal to use the available grid capacity at National Grid's West Burton substation. There has also recently been a lot of press coverage of the capacity of generation projects in planning pipelines. It is the Applicant's position that the total capacity of solar generation projects is not of a sufficient quantity to meet Government's targets. The connection registers held by National Grid and the Distribution Network Operators do appear to be well supplied, but the majority of projects have connection dates well into the 2030s so do not meet the urgency of the need.

[1] Responding to the Climate Change Committee's (CCC) 2023 Annual Progress Report to Parliament.
[2] Future Energy Scenarios (FES) document, National Grid, July 2023

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	Further, National Grid stated in February 2023 that only between 30% and 40% of the projects on their register make it to fruition[3], providing further evidence to support the points the Applicant has made in Section 7.2 of the Statement of Need [APP-320]. He further noted that it is not just solar that is required to be built out, nor just solar which is subject to grid connection constraints. A broad range of technologies are required to meet net zero. The Scheme, if consented, will play its part in the UK's multi-technology energy system. For example, hydrogen, which will only deliver if other low-carbon technologies deliver first. So its benefits are not yet assured. Blue hydrogen relies on the removal of carbon dioxide which will not be possible until carbon capture usage and storage (CCUS) is delivered at scale. Green hydrogen relies on the abundance of low-carbon generation for electrolysis. Green hydrogen requires a build out of significant quantities of low carbon energy generation to electrolyse water. Abundant low-carbon electricity is essential if green hydrogen is to work, otherwise we are locked into a future of CCUS, which is not yet a proven technology. Urgent action is therefore needed now both to deliver a zero-carbon electricity grid by 2035, and to provide options for further technological development later. Solar delivers on both, and it is already proven in delivery and operation. Mr Gillett then moved on to security of supply. Electricity supply should be plentiful at all times to avoid shortages during unforeseeable circumstances. Mr Gillett also noted that Sections 8.7 and 8.8 of the Statement of Need [APP-320], and Figures 8.1 & 8.2 provide evidence on a multi technology approach to decarbonisation of the electricity system and show how wind and solar can work together in order to deliver sufficient low carbon supplies. This is consistent with National Grid's FES which states at p16 that "*a range of technology with different characteristics can, in combination, help deliver secure, affordable low carbon electricity supplies … More electricity from wind and solar is vital to help UK meet its target for net zero by 2050*." The Scheme also includes proposals for a Battery Energy Storage System (BESS) and the security of supply benefits were described under Agenda Item 3c earlier, so will not be detailed further. Mr Gillett then moved on to discuss affordability, it is a characteristic of any market that when a commodity is scarce, or even thought to be scarce, its price increases. For electricity, this characteristic highlights the relationship between security of supply, national capacity of supply, decarbonisation and the affordability of energy, as we have seen in the past 12 months. The Climate Change Committee's (CCC) June 2023 report states at page 20 that given the short lead time and rapid deployment of onshore wind and solar, if we could "turn back the clock", these assets could have helped to mitigate dependent on imported gas during last year's fossil fuel crisis.[4] The Climate Change Committee consider that UK-based renewable generation provides affordability and security supply benefits. It is the Applicant's case that the Scheme will, if consented, also provide those benefits from its first day of operation. Figure 10.2 of the Statement of Need [APP-320] explains how delivering new solar generation reduces consumer commodity prices. Figures 10.3 & 10.4 of the Statement of Need [APP-320] show that large-scale solar is already among the cheapest generation technology and is projected to get cheaper. Government published a 2023 update to its Cost of Generation series, from where the data came and the updated data is consistent with that shown in the Figures stated.[5] Mr Gillett noted that a zero-carbon future is not yet fully assured. The Contracts for Difference (CfD) scheme is the government's main mechanism for supporting low carbon electricity generation and CfD Allocation Round 5 (AR5) was held in Summer 2023. When results were published in September 2023, no contracts had been awarded to offshore wind projects.

[3] (Source: https://www.nationalgrideso.com/news/eso-leads-way-major-initiative-accelerate-connections-electricity-transmission-grid
[4] The Climate Change Committee's 2023 Progress Report to Parliament, June 2023
[5] Department for Energy Security & Net Zero, *'Electricity Generation Costs 2023*

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	The effect this will have on the future development of offshore wind remains to be seen. At best it will only delay the construction of projects which have already secured planning. At worst, some projects just may not deliver. Any shortfall in the delivery of low-carbon generation projects against National Grid's scenarios will need to be made up for instead by other technologies. He also noted the mention of fusion and the Government's Fusion Strategy which has been published, which states that it is the Government's intention to have a fusion plant operational by 2040.[6] The Energy Act 2023 legislates for the delivery of fusion, but it cannot meet the urgent need for decarbonisation. In contrast, in CfD AR5, 1.9 GW of solar projects successfully secured agreements starting in 2027. Solar also continues to deliver on affordability. To close, Mr Gillett quoted from page 25 of the CCC June 2023 Report: "*The Government's decarbonisation framework is currently missing coherent plans to mitigate the delivery risks to meeting the UK's 2030 NDC under the Paris agreement and the Sixth Carbon Budget. The current strategy has considerable delivery risks due to its over-reliance on specific technological solutions, some of which have not yet been deployed at scale. This lack of balance carries considerable and increasing risks to meeting the emissions targets*". Against that context the need for solar is enormous and urgent. Solar has a critical role to play to deliver decarbonisation, security of supply and affordability benefits. These benefits are consistent with those described by the Secretary of State in 2023 draft EN-1 at paragraphs 3.2.5 and 3.2.6, in which the Secretary of State has determined that those benefits should be given significant weight when considering applications. The Applicant therefore asks the ExA too to give significant weight to those benefits in his assessment of the Scheme. The ExA requested an update to the Statement of Need to account for the policy referred to that post-dates the submission of the Application. He also asked that, should the Scheme not go ahead, what would the implications be on delivery of government policy. *Post hearing note: Please the Applicant's response to Action Point 3 below.* Mr Gillett responded that failure of the Scheme to be constructed will mean that other schemes need to come forward with greater urgency and greater capacity to meet the Government's targets. He also noted the national resource of the West Burton grid connection and noted that it is important for consumers that this grid connection is used. If a low carbon scheme which connects to an available grid connection capacity is not consented, then that capacity goes unused and requires other projects to come forward, which has timing and cost implications. In response to various points raised by Mr O'Grady relating to the need for the Scheme and potential alternatives, Ms Brodrick responded that Mr O'Grady has provided a range of detailed oral submissions and asked that these be set out in writing. She also asked that Mr O'Grady summarise his professional experience so that this can be taken into account by the ExA and other parties in considering his submissions. Mr Gillett responded that the Applicant's position is that there is an urgent need for the grid to be decarbonised, which all technologies need to play a part in. There is an increase required in consents for all technologies, not just solar. He also noted that schemes participating in CfD will always be smaller than NSIP level; in order to participate in a CfD round, planning consent must have been secured. In respect of the comments made around the use of the West Burton connection point, he stated that leaving this capacity unused until other schemes are brought forward (such as electrolysers) does not align with the Applicant's view for how existing connections should be used to urgently decarbonise. In response a point raised by Mr Skelton regarding the current use of the West Burton A Power Station, he noted that the Scheme was not taking away 500MW of capacity that would otherwise be used by one of the units at West Burton A, as this plant is coming to the end of its life.

[6] *Towards Fusion Energy 2023*, Department for Energy Security and Net Zero, October 2023

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	Ms Brodrick referred the ExA to section 4.6 of the Planning Statement [APP-313] which summarises the benefits of the Scheme and noted that the specific benefits from landscape and ecology could be covered later in the agenda. Mr Clarkson for WLDC raised no specific comments relating to the benefits of the Scheme, and nor did Mr McBride for LCC or Mr Pointer for NCC.
c) The approach to site selection and the extent of the Order limits: To include consideration of the implications of the extent of agricultural land required.	Ms Brodrick noted that all relevant points had already been covered, and reiterated that Environmental Statement Chapter 5: Alternatives and Design Evolution of the [APP-043] sets out the site selection process undertaken by the Applicant. The ExA asked about BMV land consideration within the site selection assessment and cumulative impacts. Ms Brodrick referred to her earlier explanation of the initial stage of the site selection process, which was in accordance with policy, and that the Applicant had initially looked at non-agricultural land and lower quality agricultural land, but that the no available or suitable sites were identified. As a result, the Applicant then looked at Grade 3 land and this was the reason for including agricultural land within the Scheme. Ms Brodrick also responded that the question on cumulative impacts can be dealt with further down the agenda, and the Applicant's soil expert can respond to specific questions. Ms Brodrick explained the distinction between Grade 3a and 3b land and its relevance for the purpose of the site selection, as Grade 3a is BMV land, and Grade 3b is not. The distinction is relevant given there is a policy requirement to try and avoid using BMV land if possible to do so. Mr O'Grady raised that the Government is about to publish a land use framework. Ms Brodrick responded that when such a strategy is published, the Applicant will take account of this. She also noted that a full assessment of land use has been undertaken and that the impacts to agricultural land can be dealt with in greater detail at the appropriate agenda item.
d) Use of alternative technologies. To include the applicant's response to points raised in representations regarding alternative approaches to renewable energy generation.	Ms Brodrick noted that Environmental Statement Chapter 5: Alternatives and Design Evolution [APP-043] sets out the Applicant's approach to alternative technologies and different renewable energy sources, which have been discussed already in detail. Section 5.6 of Chapter 5 covers alternatives in respect of this Scheme, such as differences in panel type. Further details are also set out in Chapter 5 of the Statement of Need [APP-320]. She also noted that the responses to relevant representations would cover these points in detail, as a number of comments suggesting that other sources of generating electricity are a better choice than solar were made, which referenced technologies like wind, tidal power and nuclear. Ms Brodrick reiterated why solar is needed and how solar can deliver within the timeframe so delivering renewable solar by 2030. *Post hearing note: The Applicant's Responses to Relevant Representations have been submitted at Deadline 1 [EX1/WB8.1.2].* Mr Gillett noted that solar clearly generates less over winter than summer. However, wind and its trends are the opposite of this. He noted that a much larger amount of offshore wind will be needed to cover generation in the summer without solar energy filling this gap in the summer. It is a very insular view to look at one aspect of solar generation without looking at the energy market wholly. Mr Gillett noted that alternative technologies are addressed in the Statement of Need [APP-320]. He noted that Table 8.2 sets out detail of how the grid can be balanced through solar generation alongside other technologies. Table 7.1 of Statement of Need shows that energy per hectare is broadly comparable (solar vs. onshore wind) and the environmental effects of solar are generally lower. In response to comments made by Mr O'Grady relating to the need to reduce the harm resulting from ground mounted solar and offshore wind as a less harmful alternative, Ms Brodrick stated that the purposes of the Environmental Statement is to assess the Scheme and to mitigate any significant adverse effects identified. A similar exercise is undertaken for offshore wind projects to assess the types of harm for those sort of projects. They are assessing different types of harm given the differences between the offshore and onshore environments, but it is incorrect to say there are no issues or adverse effects associated with electrical generation. In response to further comments from Mr O'Grady comparing ground mounted solar to offshore wind, Mr Gillett responded to note on record that the Applicant is not stating that solar is a substitute to offshore or onshore wind.

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5. Environmental Matters a) Landscape and Visual impacts Particular focus on the Applicant's assessment in terms of identified beneficial and adverse effects; consideration of how the cumulative landscape and visual effects of this and other nearby solar projects have been analysed.	The ExA noted that a range of parties have raised matters relating to landscape and visual matters (LVIA) and noted that there is a large volume of documentation and information. The ExA also noted that the majority of questions would be dealt with in writing. She asked the Applicant's landscape consultant to provide a short summary of the assessment. Ms Brodrick noted that summary tables are being prepared for Deadline 1, similar to those submitted at Deadline 1 for the Cottam Solar Project. She noted that the volume of information is a result of the disparate nature of sites comprising the Scheme and the number of viewpoints the Applicant was asked to assess. *Post hearing note: Supplementary landscape and visual impact tables have been submitted at Deadline 1 [EX1/WB8.2.1] and [EX1/WB8.2.2].* Chris Jackson introduced himself and then went on to describe the process of conducting the LVIA. He noted the methodology was prepared in accordance with the Landscape Institute's 3rd Edition of the Guidelines on Landscape and Visual Impact Assessment (GLVIA3) "in house", and then agreed through consultation with the local authority. He noted the difference between assessing the landscape impacts and assessing visual impacts. The LVIA assesses the impacts of the 3 sites and the cable corridor, cumulative impacts of the sites themselves and then cumulatively with the NSIPs local to the Scheme (Gate Burton, Tillbridge and Cottam). The detail of the assessment is in Appendix 8.3 [APP-074] with the summary in Environmental Statement Chapter 8: Landscape and Visual Impact Assessment [APP-046]. The Report is structured through a series of individual points of assessment relating to the individual sites. The assessment covers West Burton Sites 1, 2, 3 and the cable route in sequence. It assesses the effects at 4 dates – construction year 1, operation year 1, operation year 15 (when landscape mitigation will have established) and decommissioning. The mitigation is designed to reduce LVIA impacts, but also to enhance biodiversity. He described the differences between the approaches for different assessment years. The assessment for construction year 1 and operation year 1 is very similar, as the planting is still immature at this stage and the time between the assessment years is short. In contrast, in year 15, the planting has matured and is beginning to provide screening for the visual effects. He noted that mitigation in the Scheme is change is landscape management and measures identified in the Outline Landscape and Ecological Management Plan [APP-311]. It has been identified both by the Applicant and through the Lincolnshire County Council LIR that there are a small number of inconsistencies within the LVIA [APP-046]. These are contained within the residual visual effects section of the LVIA (section 8.11) at Tables 8.74, 8.75, 8.76, 8.77 & 8.78 and relevant to: West Burton 1 VP8 PR007 West Burton 2 VP18 VP24 VP26 VP27 VP28 T009

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	T010 West Burton 3 PR038 In each of these, the nature of effect is incorrectly identified as beneficial in the tables. This is also repeated within the Environmental Statement Non-Technical Summary (NTS) [APP-308]. In both instances, this is unfortunately a typo. To be consistent with all other references in the LVIA, the technical appendices and Chapter 23 Summary of Significant Effects [APP-061], this should read 'adverse'. This correction to the nature of effects, results in no changes to the findings or conclusions of the LVIA. the remainder of the LVIA, the technical appendices and summary of significant effects are all correct. Ms Brodrick confirmed that Appendix 8.3 [APP-074] which contains the detailed assessment for each receptor and the summary in Chapter 23 [APP-061] are correct and confirmed that the NTS and chapter 8 [APP-046] will be updated for Deadline 1. *Post hearing note: An updated version of the Non-Technical Summary [EX1/WB6.5_A] has been submitted at Deadline 1.* The ExA asked the Applicant to explain whether the conclusions of residual beneficial effects were as a result of mitigation. Mr Jackson responded that this is because of a mixture of mitigation and extensive landscape enhancement. Mr Jackson noted that the landscaping plans have focused on re-enforcing and enhancing existing characteristics of the landscape, such as large-scale meadow planting and individual trees within hedgerows, rather than planting large blocks of woodland which are not in keeping with the existing landscape character. He noted that through sensitive design, the Applicant intends to provide mitigation screening that is not incongruous with the existing landscape. Building up the landscape character is the driver behind landscape improvement and has led to the conclusions of beneficial effect. The ExA referred to comments made in relevant representations and at the Open Floor Hearing 1 in respect of changing views and foreshortening long range landscape views and asked the Applicant to respond. Mr Jackson described the difference between impacts to the landscape and impacts to visual receptors and noted that the majority of the comments raised in the relevant representations and at the open floor hearing 1 related to visual impacts. Ms Brodrick responded to the point made by Ms Garbutt relating to the extent of hedgerow removal as a result of the Scheme, by reiterating the response given in respect of similar point raised at the Cottam DCO ISH1. The powers in the draft DCO [APP-017] have to be read in conjunction with the requirements set out in Schedule 2 to the draft DCO. Whilst the power is drafted broadly, there is a requirement for the powers to be exercised in accordance with the final Landscape and Ecological Management Plan ('LEMP', secured through requirement 7) [APP-311]. It is therefore not an unlimited power. There is no intention to remove all hedgerows and trees from within the Order Limits. The reason why the power is wide is to afford a degree of flexibility, as the detailed design for the Scheme is not yet known. Hedgerows may need to be removed to enable access to fields for site construction and for the cable route construction. The Applicant needs to retain the flexibility to micro-site the cable route within the Order Limits, and so the power has to be a wide one, but one that must be exercised in accordance with the controls set out in the management plan. She noted that, as has been assessed, there will be approximately 20 new temporary hedgerow gaps associated with the cable route (c.82m-142m of temporary removal) and 7 new hedgerow gaps and 9 ditch crossings associated with the arrays (c.24-52m of hedgerow a anticipated to be removed). So, the amount of hedgerow that will be removed is very small. However, the Applicant needs the power to apply across the whole Order Limit in order to microsite where those access sites will be located. In response to comments made by Mr Summers in respect of the Lincoln Cliff, Mr Jackson referred to the assessment of landscape character for the Lincoln Cliff, and VP15 and LCC-C-A which are views from the Lincoln Cliff and referred to the photomontages showing these viewpoints. He also referred to the proposed mitigation and enhancement measures set out in the Outline Landscape and Ecological Management Plan [APP-311].

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	In response to comments regarding the retention of planting when the Scheme is decommissioned, Ms Brodrick explained that there is a commitment to decommission the Scheme, to remove the Scheme's above ground apparatus and revert the land to agricultural use. This is the basis for the Environmental Statement. Following decommissioning, the land will be the responsibility of the landowner. The commitment is to return the land to agricultural use rather than to retain the landscape planting, however, the Applicant considers it likely that there will be benefits to the landowner in retaining the mitigation and enhancement planting and so they may be left in place. The features may also be protected by designations by the time the Scheme is decommissioned, which the landowner would have to comply with. She reiterated that there is no commitment to retain the planting after decommissioning. In response to further comments from Ms Garbutt relating to the DCO powers to remove hedgerows and trees, Ms Brodrick noted that amendments made to the draft DCO for the Cottam Solar Project to make it clear that the power must be exercised in conjunction with the LEMP and to refer to "part" of hedgerows will be carried across to the West Burton DCO submitted at Deadline 1. *Post hearing note: The Applicant has amended Article 38 of the draft DCO [EX1/WB3.1_A] to make it clear that the powers must be exercised in accordance with the Landscape and Environmental Management Plan approved pursuant to Requirement 7. In addition, Schedule 13 has been amended to make it clear that it is only "part of" the hedgerow (and not the whole of it) that is to be removed. The Applicant has also produced Hedgerow Removal Plans providing indicative details of the hedgerows that are currently proposed to be removed temporarily to facilitate the construction of the Scheme and those that are currently proposed to be removed during the occupational life of the Scheme. This is appended to the Outline Landscape and Ecological Management Plan.* The ExA then turned to visual impacts and referred to concerns raised about the height of tracker panels, and the change as a result of the Scheme from a rural landscape to an industrial landscape. Mr Jackson responded that the LVIA has assessed visual impacts and recognises that there is a visual change as a result of the Scheme. Where adverse effects have been identified, mitigation is proposed to remove that significant adverse effect. He noted that, given the flat landscape, there are viewpoints on the Lincolnshire Cliff from which the Scheme is visible. There were 57 viewpoints identified by the Applicant, plus 15 identified by Lincolnshire County Council. Photomontages of agreed viewpoints are included in the assessment (Appendix 8.3) [APP-074]. The flat landscape also allows for effective screening and enclosure. He also noted that the site is disparate, which allows for bespoke mitigation for each site. Ms Brodrick added that NPS EN-1 has a section of LVIA, and para 5.10.12 does acknowledge that proposed energy infrastructure is likely to have visual effects. It is recongised at a policy level as part of the nature of schemes, that the Secretary of State will have to consider when weighing up the benefits and adverse impacts. The Applicant has sought in its application materials to demonstrate how it has tried to minimise the amount of visual impact through its use of mitigation measures. The ExA noted that photomontages have not been prepared for every viewpoint where significant effects have been identified. Mr Jackson responded that the photomontage locations were agreed with the Lincolnshire County Council through consultation. He then described how the photomontages were compliant with guidance and policy. These were produced using the Landscape Institute's Advice Note 6.19 ('*Visual Representation of Development Proposals*') which explains the specific methodology for how these are produced. He noted that the decision on which viewpoints would be taken forward to a fully rendered photomontage was agreed with consultants AAH Planning (acting on behalf of LCC). The ExA requested full photomontages for all of the missing viewpoints where significant adverse effects. Mr Jackson added that the consultation with LCC took place before an identification of significance had taken place, so parties were working on their understanding at the time of where it was likely that significant effects would be identified. He noted that there is photography for each of the viewpoints in the assessment. He also stressed that photomontage is only a tool to identify potential significant effects but agreed to consider this point. *Post hearing note: Please see the Applicant's response to Action Point 5 below.*

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	The ExA asked whether the study area of 2m, rather than 5km for the assessment of impacts from the BESS substation on the West Burton 3 Site was adequate, given their height of 13m. Mr Jackson responded that the study areas were agreed through consultation with the local authority. The design process considered the location of the infrastructure within the West Burton 3 site that would best accommodate the infrastructure, considering existing containment caused by topography and landscape features. He noted that the assessment methodology was agreed with LCC. He noted that the impact of views beyond the 2km area are still accounted for in the assessment, it is just that impacts are not anticipated beyond this. In response to comments raised by Mr Summers relating to how hedgerow removal had been accounted for in the LVIA, Mr Jackson noted that, as previously described by Ms Brodrick, the hedgerow removal is limited to access points, each of c.7m. Comments were raised by Ms Garbutt and Mr O'Grady relating to the 4.5m height of the panels and the impact this would have in changing the landscape from an agricultural to an industrial landscape at a regional level. Mr O'Grady provided statistics relating to the efficiency output change if the panel height was reduced to 2m. Ms Brodrick responded that the highest extent of the tracker panels has been assessed, on a worst-case scenario basis. She noted that the point was understood regarding whether the reduction to 3m using fixed panels would material change the likely significant effect conclusions. For example, whether the use of fixed panels only would reduce the effect conclusions from a significant adverse effect to a minor adverse effect. She noted that the Applicant would take this point away to consider. An indication of when the Applicant could provide this will be submitted at Deadline 1. *Post hearing note: Please see the Applicant's response to Action Point 6 below.* The ExA then turned to consideration of cumulative effects with the other solar projects in the local area. She asked the Applicant to confirm the position was correct that no likely significant cumulative effects are anticipated arising from West Burton cumulatively with the Cottam, Gate Burton and Tillbridge solar projects. Ms Brodrick confirmed that the Applicant would submit the Interrelationship Report [EX1/WB8.1.8] prior to Deadline 1, this being the same document that has been submitted into the Cottam and Gate Burton examinations. Ms Brodrick noted that this Report brings together the conclusions of the assessments undertaken for each project individually and cumulatively. Mr Jackson then described that the cumulative effects assessment has not identified any significant adverse effects, and referred to the cumulative ZTV assessments which identify potential crossovers between the schemes [APP-277, APP-278 and APP-279]. He noted that the visual effects assessment considered both sequential and static views. *Post hearing note: Post hearing note: The Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [EX1/C8.1.8] was submitted into the Examination on 15 November 2023 and an updated version has been submitted at Deadline 1.* In response to Mr McBride summarising the conclusions of Lincolnshire County Council's LIR in relation to LVIA, the ExA noted this would be revisited later on in the Examination.
b) Ecology and Biodiversity Consideration of ecological survey work, including the impacts of the Proposed Development on existing trees/hedgerow and the value of new planting.	The ExA noted that some questions will be dealt with in written questions, noting concerns raised in relevant representations on fragmentation of habitats as a result of security fencing. Harry Fox introduced himself and then went on to describe the process of ecological assessment. Mr Fox described that a comprehensive suite of ecological surveys has been undertaken within the Order Limits to establish the baseline. Following preliminary ecological appraisal, specific surveys for priority habitats, bats, breeding and wintering birds, otters, water voles, badgers and great crested newts have been carried out. Habitats have been assessed for other notable species groups, including reptiles, invertebrates and small mammals.

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	Furthermore, a desk study to examine the presence of third-party records of protected species and the whereabouts of local and statutory sites designated for nature conservation has been undertaken. This also includes review of local and national policies and local conservation objectives, including decision-making data sets. The Sites generally occupy arable farmland (cereals and oilseeds predominate) on level or gently undulating ground, characterised by large, open fields with a managed hedgerow and ditch network with narrow uncultivated margins. A small amount of permanent pasture is present and this is either sheep grazed or managed as silage. Woodland and other habitats are generally absent within the Sites although a small number of shelter belts and copses are situated adjacent. In terms of wetland habitats, only eight ponds are present on the Sites, with further located a short distance away from field boundaries, while the River Till runs adjacent to two of the Sites and the River Trent being crossed by the Cable Route Corridor. Larger drains and permanently wet ditches can be found on each Site. The habitats on the Sites are considered to be very much typical of their surroundings. The habitats are typical of the local area, agricultural habitats are considered to be of relatively low ecological importance in their own right. The corridors of the rivers Trent and Till and hedgerow and boundary features are of higher ecological importance. Mr Fox then described the features that has been identified and their level of importance. Ecological features assessed as being the most important include: • the hedgerow, ditch and watercourse network, which is being assessed as being of District importance; • the pond network, which is given District importance for the presence of Great-Crested Newts; • the arable field margins which are of Local importance; • an assemblage, roosting and foraging of bats, of District importance; • a water vole and otter population, of District and Local importance respectively; • a breeding bird assemblage, of District importance. In addition, six local wildlife sites are present within 100m of the Order Limits. He referred to the ecological mitigation measures that have been embedded into the Scheme to mitigate or enhance existing ecological features. This includes the use of existing agricultural field accesses, leaving 7 new permanent hedgerows gaps being required within the Sites. The adoption in the majority of cases to use horizontal directional drilling to cross hedgerows and other features during cabling operations. The adoption of a comprehensive buffering scheme, whereby valuable boundary features are buffered from developments and features such as badger setts, typically by between 8-20 metres on each side. An Outline Ecological Protection and Mitigation Strategy (EPMS) [APP-326] secured by Requirement 8 of the DCO [APP-017], details all the environmental and ecological protection measures to be followed throughout the construction of the Sites and construction at the Cable Route. Principal measures include methods to avoid the risk of accidental damage, pollution or contamination, as well as harmful disturbance or injury to protected species; sensitive seasonal timing of works where required and the presence of an Ecological Clerk of Works during all habitat clearance and drainage operations. An Outline Landscape and Ecological Management Plan (LEMP) [APP-311] secured by Requirement 7 of the DCO [APP-017] sets out all the habitat creation and management prescriptions to be adopted through the life of the operational Scheme. This will particularly focus on the creation of new hedgerows, diverse grassland woodland and wetland habitats, as well as the favourable management of the grasslands under and surrounding the arrays so as to maximise their value to biodiversity. Approximately 7km of new native hedgerow will be planted, 13ha of woodland and 570ha of various diverse grassland types. Five new ponds will also be created.

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	Retained hedgerows and ponds will benefit from their sensitive management and the cessation of arable practices. In addition, the document contains prescriptions for the mitigation required for predicted displacement effects on ground nesting birds (skylark and lapwing), for instance the creation of 100 ha of optimal nesting and wetland habitat within West Burton 2. Ecological enhancement measures are also contained in the LEMP, including new nesting and roosting habitat for birds and bats, pond enhancement measures for amphibians and measures required to achieve a Biodiversity Net Gain through the Scheme. The Scheme will result in a Net Gain for biodiversity exceeding minimum guidance in area-based, linear and wetland habitat terms. At present, our assessment provides 86%, 54% and 33% respectively for each type of unit. This is secured through the requirement to produce a biodiversity net gain strategy (see the Biodiversity Net Gain Report [APP-088]), pursuant to requirement 9 of the DCO. The predominant habitat management to be carried out within the operational Scheme will be grassland cutting, with an emphasis on the generation of a mosaic of grassland types being more diverse than the baseline habitat condition. The BNG and LEMP's habitat creation and management priorities have been part driven by the Biodiversity Opportunities Mapping produced by Greater Lincolnshire Nature Partnership and local policies promoting the connection of Green Infrastructure and Nature Recovery Networks, such as those associated with the River Till. Mr Fox then responded to the habitat fragmentation concern. He noted that security fencing can form an impediment to dispersal for a limited number of species, but the perception that it is a barrier to all is not correct. The assessment concludes there is no impediment to the movement of small mammals like badgers and hare. Monitoring of extant solar sites has not identified any issues and indeed has identified benefits resulting from the reversion of arable land. Deer are larger and therefore different. They can be impeded in their movement. Whilst it is acknowledged that there is some potential for impediment, the significance of this is not above threshold levels, so this is assessed as having a low impact, The assessment primarily focusses on protected species, of which deer are not, so they have not been treated in the assessment as such. The ExA asked for more detail on how the new fencing would impact on new planting. Mr Fox responded that no impacts arising from new fencing have been identified. The Scheme's embedded mitigation, as set out in the EPMS [APP-326], shows there is buffering of Scheme infrastructure from all boundary features such as ditches, woodland edges and hedgerows. This describes where the security fencing will be implemented. This buffer is then used for ecological enhancement through the generation creation of diverse grasslands, such as pollinated meadow and tussocky grassland. So, by implementing the fencing there is a distinction between the grassland beneath the panel area and the buffer areas. He noted that the Applicant does not consider there to be an impediment from implementing the security fence to retained or created habitat. Ms Brodrick noted that page 6 of the Concept Design Parameters and Principles document [APP-322] summarises those boundary features. In response to Ms Garbutt's question regarding what sort of fencing would be used for the Scheme and the adequacy of deer fencing, Ms Brodrick responded that 2 different types of fencing are proposed – deer wire mesh fencing and higher security fencing. There are photos in Chapter 4 of the Environmental Statement [APP-042]. The security fencing will enclose Work No.2 and Work No.3 - the BESS and the substations on the Sites, which occupy small areas within the sites. The rest of the fencing proposed is deer wire mesh fencing. The Concept Design Parameters and Principles document [APP-322] provides further detail on this. The ExA asked the Applicant to provide further information on the ecological mitigation and enhancement measures and how these are secured. Ms Brodrick referred to Requirement 9 of Schedule 2 to the DCO [APP-017], which requires that the BNG strategy must submitted to the relevant planning authority and must be implemented as approved. In addition to that BNG strategy that will set out that calculation of the number of units, the other ecological management plans must be taken into account. Requirement 7 and Requirement 8 provide that the LEMP [APP-311] and EPMS [APP-326] must both substantially accord with the outline LEMP and outline EPMS respectively. Final versions of these plans will set out the measures that will

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	be implemented to deliver BNG, however, the BNG calculation percentage, in terms of units, will be established in the strategy that will be discharged through Requirement 9. Mr Fox described the 3 categories of BNG unit – habitat units, linear (predominantly hedgerows) units and river units (rivers and ditches). The calculation is a combination of the area of the habitat and its own inherent distinctiveness multiplied by its condition. He then described the inputs used to calculate the percentage increase in BNG for each unit type. For area units, 570 ha of arable land is being reverted to a mixture of different grasslands, with higher distinctive habitats located in the previously mentioned buffer areas. For linear units, 7km of hedgerow will be created through a combination of in-fill of hedgerows where parts have failed over the years, doubling and new hedgerow creation. River unit benefits are being achieved through cessation of arable practices, resulting in a reduction in chemical usage and improved ditch maintenance. Five new ponds are also being created, as well as the 100 ha of wetland habitat on the West Burton 2 Site, which will benefit species such as lapwing, No comments were raised by the relevant planning authorities.
c) Soils and Agriculture Consideration of National Policy which encourages the minimisation of impacts on the best and most versatile agricultural land and preferably use of land in areas of poorer quality. The impact on soil properties of an extended fallow period.	The ExA asked for the Applicant to explain the conclusion that leaving the soil fallow would result in a moderate beneficial effect (significant), having regard to Natural England's comments about the uncertainty of this conclusion. Mr Baird introduced himself and then went on to describe the benefits from aeration of the land when it is reverted from arable land to grassland. Mr Baird noted that the solar farm land management will differ from arable management by avoiding bare soil surfaces, improving rainfall infiltration, maintaining year round living roots in the soil and enabling a recovery of 'Soil Organic Matter' (SOM) depleted through cultivation. He described how reverting from arable management of the land to grassland results in the elimination of extreme aeration, which in turn benefits the soil resource and allows it to return back to a higher equilibrium that the low equilibrium achieved during arable practices. This recovery in SOM is important for soils functional capacity to support arable production. It also enhances other ecosystem services that soil has a role in such as hydrology. The benefits to SOM of reverting arable land to a year round grass cover are well understood and laid out in the Defra research project, '*Best Practice for Managing Soil Organic Matter (SOM) in Agriculture - SP08016'* (see Chapter 19 – Soils and Agriculture, paragraph 19.9.14 [APP-057]). Mr also described the financial incentives provided to farmers to encourage the reversion of arable land to grassland to aid the recovery of SOM and soil health, and the wider benefits that can arise from this. Mr Baird noted that these benefits are not taken into account in the ALC system, so as not to create perverse incentives for farmers to mismanage their land in order to secure planning permission. That also means that if someone provides a level of agricultural management which is exceedingly good then that is also not recognised in the system. This is because land is surveyed based on the physical characteristics which are present and based on the assumption of a good level of management. He noted that Defra research and cross compliance payments made to farmers recognise the benefits of solar farms for leaving land fallow. The ExA asked Mr Baird to refer to any research on the benefits of solar farms specifically any research or evidence in terms of the impacts of solar panels or soil quality. Mr Baird responded that he was not aware of any research given the length of time existing schemes have been established, but he was not aware of any reason why a solar farm would not benefit soil quality and grassland growth. Ms Garbutt asked what scale of solar farm he was referring to. Mr Baird responded that it was a range, from 20ha to NSIP scale, there being no difference as the equipment and installation method was largely the same. Mr Baird provided a brief response to the comments made by Mr Summers regarding the impacts of climate change on soil wetness limitations and soil droughtiness limitations. He noted that the extreme weather brought about by climate change (wetter winters and drier summers) is limiting the ability of farmers to get onto land when it is wet to cultivate it without damaging the soil structure which is expensive and time consuming to remediate. He

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	also responded that soil wetness limitations and soil droughts in its limitations occur at different times of the growing season, so it is possible to have one piece of land which is limited to the same grade by both limitations.
d) Cultural Heritage Consideration of the approach taken to archaeological field investigations in establishing the sensitivity of the site areas.	The ExA requested an overview of the approach to archaeological assessment. Ms James introduced herself and described that in order to establish archaeologically sensitive areas within the Scheme, a comprehensive field investigation was completed, which is considered to be in line with national and local guidance. For example it is in line with NPPF , EN-1 (2011), EN-3 (2011) and Policy S57 of the Central Lincolnshire Local Plan (adopted in 2023). It is believed that planning application for the Scheme is accompanied by an appropriate and proportionate assessment, which has enabled us to understand the potential for and significance of archaeological remains, and the impact of development on them. Desk-based assessments, the results of which can be found in Appendix 13.1 of the Environmental Statement [APP-105 to APP-108] and a geo-archaeological desk-based assessment Appendix 13.3 [APP-115] were undertaken to understand the archaeological potential of the site with consideration to the various Historic Environment-based information sources. In the first instance the field investigation (also called an archaeological evaluation) comprised a programme of non-intrusive techniques that covered all accessible areas within the Order Limits. The results are contained in the geophysical survey Appendix 13.2 [APP-109 to APP-114] and the air photo and LiDAR analysis Appendix 13.4 [APP-116]. In particular, geophysical survey proved to be particularly effective at identifying buried archaeological deposits. The geophysical survey comprised a magnetometer survey, which is a magnetic survey technique. Magnetometer surveys are a nationally recognised evaluation technique for identifying a wide range of archaeological features, they can cover up to 100% sample of a site, and are regularly used to evaluate large areas (as stipulated in the EAC (European Archaeological Concilium) Guidelines 2015 and Historic England guidance). The results of the non-intrusive assessments were used holistically to identify areas where there was a potential for archaeological remains to be present. A programme of informed evaluation trial trenching was undertaken to test the results of the non-intrusive evaluation techniques and provided further information regarding their extent, character, preservation, and archaeological significance – see Appendix 13.6 of the Environmental Statement [APP-120 and APP-121]. With regard to the solar sites, the evaluation trial trenching targeted areas where archaeological deposits had been identified by non-intrusive evaluation techniques, as well as some 'blank' areas where a low potential for archaeological remains had been identified by non-intrusive evaluation techniques. WSI for the trial trench evaluation on the Solar sites was agreed in July 2022 with Lincolnshire Historic Places Team ('LHPT' advisors to Lincolnshire County Council and Basset law in Nottinghamshire). Trench plans for individual areas were signed-off by LHPT between July and September 2022. Numerous site visits were undertaken between LHPT and the Applicant between July and October 2022. During site visits, all parties agreed that the standard of works were undertaken to a sufficient level and in line with appropriate professional standards and guidance. The overall sample of evaluation trial trenching within the Order Limits of the solar Sites totalled an estimated 0.36% (a sample of 2% (plus 2% contingency) of targeted fields where an archaeological potential had been identified, as well as some blank areas). In terms of the Shared Cable Route Corridor, which is proposed to be used for the West Burton Solar Project, Cottam Solar Project and Gate Burton Energy Park, the Applicant worked closely with the Cottam and Gate Burton Schemes to deliver a comprehensive evaluation programme and formulate an effective mitigation strategy.

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	The evaluation trial trenching targeted areas where archaeological remains had been identified, as well as a blanket sample of 'blank' areas. It is estimated that the evaluation trial trenching along the Shared Cable Route Corridor sampled 0.65% of the area. This slight difference in approach was a result of: • high level of impact that would be caused to the archaeological record as a result of the Scheme; and • the sensitivity for archaeological remains in land adjacent to the Trent Valley; with particular consideration of the potential for alluvium and presence of paleoenvironmental deposits. It was agreed in a meeting in January 2023 that the extent of evaluation for the shared cable route was sufficient to identify the potential for archaeological remains, and inform an appropriate mitigation strategy. This agreement was reconfirmed in a following meeting in March 2023. With both the Solar sites and the shared cable corridor the evaluation trial trenching demonstrated a high correlation with the results of the geophysical survey. So it was considered to verify the effectiveness of geophysical survey for identifying the presence / absence, as well as the extent of archaeological sites. It can therefore be inferred that the soils and type of archaeological features within the Scheme are conducive to a magnetic survey technique, and that we can have a high level of confidence in the results of the survey that sensitive areas containing archaeological remains have been identified. It is considered that sufficient evaluation, proportionate to the stage at which the Scheme is at, has been undertaken to inform the DCO Application and any archaeological mitigation works required post-consent. This approach is also considered to meet the definition of an archaeological field evaluation as defined by the Chartered Institute for Archaeologists *Post hearing note: Ms James did not quote this definition in the hearing but for completeness is included below.* "*is a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features… and their research potential, within a specified area. If such archaeological remains are present, field evaluation defines their character, extent, quality and preservation, reports on them and enables an assessment of their significance in a local, regional, national or international context as appropriate."* *"If the non-intrusive evaluation techniques suggest a potential for archaeology but do not provide enough information about form, significance or rarity it may be necessary to carry out an archaeological field evaluation prior to the determination of the planning application… The emphasis will be on evaluating the likely impact of development upon the identified archaeological remains."* Details of the mitigation strategy with consideration to the information derived from the evaluation are provided in the Archaeological Mitigation Written Scheme of Investigation (WSI) in Appendix 13.7 of the Environmental Statement [APP-131]. The mitigation WSI has been drafted in line with national and local guidance (including professional guidance produced by Historic England and the Chartered Institute for Archaeologists, as well as the Lincolnshire Handbook for Archaeology. Section 5 of the WSI [APP-122]). The mitigation WSI provides a detailed methodology for mitigation of direct archaeological impacts through preservation in situ (i.e. areas of no development and areas of non-intrusive concrete feet), as well as mitigation by record (in the form of informative trenching, strip, map and record excavation, and watching brief monitoring). Details of these methodologies can be found in Sections 6 and 7 of the WSI [APP-122]). Based on the results of our evaluation, the identification of unexpected remains is anticipated to be low. However, if unexpected archaeological remains are identified the WSI provides scope for them to be appropriately mitigated with consideration to their significance and the level of impact that would

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	be caused by the scheme. Conversely, it should be noted that with consideration to the information attained from the evaluation that there is considered to be a low potential for unexpected archaeological remains to be identified within the scheme. Archaeological mitigation detailed in the WSI would be secured by Requirement 12 of Schedule 2 in Draft Development Consent Order Revision B [APP-017]. The ExA asked for an update on the concerns raised in Lincolnshire County Council's relevant representation. Ms James responded that full details will be set out in the draft Statement of Common Ground between the parties, which is currently being negotiated. The key matter at issue is the amount of trial trenching required in blank areas of the Scheme. In response to comments made by Mr McBride relating to the progress of the draft Statement of Common Ground with LCC, Ms Brodrick noted that responses to the relevant representations will be submitted at Deadline 1, and a detailed response to the points raised in the LIR will be submitted at Deadline 2. *Post hearing note: The SoCG is currently under discussion between Lincolnshire County Council and the Applicant, and the Applicant's Responses to the Relevant Representations have been submitted at Deadline 1 [EX1/WB8.1.2].*
e) Transport and Access Consideration of road infrastructure compatibility with increased road use during construction, operation and decommissioning. Particular focus on the abnormal load access and road widening requirements for access. And, how all road users, and users of PROWs have been considered.	The ExA requested a summary of the methodology used for the assessment, particularly relating to concerns raised in relevant representations about road use during construction, and the timing of survey work over the Covid-19 pandemic. Mr Roughan introduced himself and responded to the comments raised by the ExA about the use of survey data from Covid-19 lockdown months in establishing the baseline for the assessment. He noted that survey data from November 2021 was used and described the process for how the baseline had been calculated, which included changes to travel patterns after the pandemic. He provided a general overview of the assessment work. Environmental Statement Chapter 14: Transport and Access [APP-052] considers the likely effects of the Scheme on transport and access during the construction, operational and decommissioning phases. He noted that solar farm developments do not generate significant traffic flows once operational – it is a few trips for maintenance each month. Therefore, the focus of the chapter is on the construction phase. Decommissioning was regarded as having similar effects to construction. The construction period will include the use of HGVs to bring the equipment onto the Sites and this will be strictly managed to ensure that vehicle movement is controlled and kept to a minimum. On a day-to-day basis, the largest vehicle that will be used to deliver equipment to the Sites will be a 16.5m articulated vehicle, although a significant proportion of movements will be by smaller vehicles. There will also be a small number of abnormal load movements to transport large transformers and cable drums. Wynns, a specialist haulage company, has been appointed to coordinate the movement of these loads. The Transport and Access Chapter [APP-052] concludes that the Scheme is not likely to result in any significant Transport and Access effects during the construction, operational and decommissioning phases. He noted that the effects during the construction and decommissioning phase will be temporary. The following technical appendices support the Environmental Statement - Chapter 14 Transport and Access [APP-052]: • Appendix 14.1 Transport Assessment [APP-126] setting out a detailed assessment of the transport effects of the Scheme; • Appendix 14.2 Construction Traffic Management Plan (CTMP) [APP-127] - a framework for the management of construction vehicle movements to and from the Scheme, to ensure that the effects of the temporary construction phase on the local highway network are minimised. This will be secured through Requirement 15 of the draft Development Consent Order [APP-017]

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	• Appendix 14.3 Outline Public Rights of Way Management Plan [APP-128] – a framework for the management of Public Rights of Way during the construction, operational and decommissioning phases. This will be secured through Requirement 18 of the draft Development Consent Order [APP-017]. Mr Roughan noted that the local highway authority was content with the assessment, save for in respect of access to the West Burton 1 Site. West Burton 1 will be accessed via the A1500 Till Bridge Lane and an unnamed road to the south of the A1500. The unnamed road is narrow. Powers to make adjustments in the highway verge for pass-by bays will be granted through the DCO, and the Applicant is currently working with Lincolnshire County Council's highways department to agree locations where these can be provided on the unnamed road. Mr McBride noted LCC's concerns about the viability of using the unnamed road as for traffic relating to the construction works and as an access point to the West Burton 1 Site. LCC further noted concerns about the mechanism for establishing passing places being the DCO, noting this would normally be dealt with through a section 278. He added that there are additional issues relating to public rights of way. Ms Brodrick responded on the point around securing the passing place measures. The DCO currently requires access details to be submitted to and approved by the local planning authority under Requirement 5 of the DCO [APP-017] and the CTMP to be approved under Requirement 15. As with the Cottam Solar Project, indicative access plans will be appended to the CTMP, so there is comfort that the agreed solution will be delivered. *Post hearing note: the indicative access plans have been appended to the CTMP submitted at Deadline 1 [EX1/WB6.3.14.2_A].* Article 14 of the DCO enables an agreement akin to a section 278 agreement to be entered into if matters cannot be dealt with through discharge of the requirements. Mr Pointer confirmed that Nottinghamshire County Council had no concerns regarding the principle of construction traffic to install the cable along the cable route and that detailed comments would be in the LIR. The ExA asked the Applicant to set out how non-motorised users have been accounted for in the assessments. Mr Roughan responded that information on the construction vehicle routes to the Site are set out within Section 5 of the Construction Traffic Management Plan (CTMP) [APP-127]. As stated in paragraph 5.1 of the CTMP, the most appropriate routes to the Sites were chosen. The routes provide the most direct connections to the motorway network and local A-roads. He added that the West Burton 1 Site will be accessed via the A1500 Till Bridge Lane and an unnamed road to the south of the A1500, as already discussed above. The West Burton 2 Site will be accessed via the A57 and B1241. Both are suitable for use by HGVs. The West Burton 3 Site will be accessed directly from the A1500, which is suitable for use by HGVs. He added that there will be a number of measures to try and make people aware of the presence of HGVs through signage and access points along public rights of way so others are aware of any non-motorised user in the vicinity. The impacts on non-motorised users have been accounted for and is managed through the Construction Traffic Management Plan [APP-127].

Agenda Item	Comments
f) Cumulative Assessments Applicant to provide an update on work to consider the interrelationships with other solar projects (as referred to in Annex C and Annex G of the Rule 6 letter, 10 August 2023).	Ms Brodrick confirmed above that an Interrelationship Report has been prepared by the Applicant and will be submitted before Deadline 1. This will be a joint report with Gate Burton and Cottam. The report has already been submitted into the Examinations for Gate Burton and Cottam. It is intended that this will be a "live" document and updated during the Examination process. For example, it will be updated once the DCO application for Tillbridge has been submitted and accepted and to take account of any further information available in respect of other proposed solar NSIPs in Lincolnshire and Nottinghamshire. *Post hearing note: The Joint Report on Interrelationships between Nationally Significant Infrastructure Projects [EX1/C8.1.8] was submitted into the Examination on 15 November 2023 and an updated version has been submitted at Deadline 1.*
6. Statements of Common Ground Update on the progress with Statements of Common Ground relevant to environmental matters with the following: West Lindsay District Council, Lincolnshire County Council, Bassetlaw District Council, Nottinghamshire Country Council, the Environment Agency, Historic England.	Ms Brodrick confirmed they were progressing and a full update would be provided at Deadline 1. *Post hearing note: A Statement of Commonality setting out the latest position on SoCGs between the Applicant and statutory consultees, statutory undertakers and other Interested Parties (the 'parties') in relation to the Scheme has been submitted at Deadline 1 [EX1/WB8.1.11].*
7. Review of action points arising	N/A
8. Close of hearing	N/A

List of actions for the Applicant and other parties following the DCO Issue Specific Hearing 1 (9 November 2023)

No	Party	Action	Deadline	Applicant's response
1	Applicant	Review of Environmental Statement to reflect the proposed 60 year life of the Proposed Development.	1	Please see the Applicant's Review of Likely Significant Effects at 60 Years [EX1/WB8.2.3] submitted at Deadline 1.
2	Applicant	Review of the relationship between proposed overplanting and the relevant load factor.	1	Please see Appendix A to this Written Summary.
3	Applicant	Review of the Statement of Need to include updated information (with updated elements clearly identified).	1	Please see Appendix B to this Written Summary. In light of the publication of the revised Energy NPSs on 22 November 2023, the

No	Party	Action	Deadline	Applicant's response
				Applicant is reviewing the published versions and will provide an update to Chapter 3 of the Statement of Need at Deadline 2.
4	Applicant	The contents of the Landscape and Visual Impact Assessment and associated appendices to be summarised and presented in a more accessible format.	1	Please see the Applicant's Supplementary Landscape Effects Table [EX1/WB8.2.1] and Supplementary Visual Effects Table [EX1/WB8.2.2] submitted at Deadline 1
5	Applicant	The viewpoints for which photomontages are presented to be reviewed, with specific consideration given to those where significant impacts have been identified.	1	Please see Appendix C to this Written Summary.
6	Applicant	Review of the feasibility of a comparative assessment of landscape and visual effects of tracker panels and fixed solar panels.	1	Please see Appendices D and E to this Written Summary.
7	Applicant	Updates to documents, in addition to those noted in the timetable: • Concept Design Parameters (noting Canal and River Trust comments) • Planning Statement (update to Planning Policy)	1	Please see the updated Concept Design Parameters and Principles [EX1/WB7.13_A] submitted at Deadline 1. In light of the publication of the revised Energy NPSs on 22 November 2023, the Applicant is reviewing the published versions and will update the Planning Statement at Deadline 2. This updated version will also include the adopted Central Lincolnshire Local Plan 2023
8	7000 Acres	Following on from detailed evidence presented to ISH1, information relating to a number of items, including: • the safety of battery storage • need/benefit (note about Mr OGrady summary of experience) • References referred to by Mr Ogrady • Soil referred to by Mr Summers	1	No response required from the Applicant.

Appendix A - Review of the relationship between proposed overplanting and the relevant load factor

1 Technology selection / orientation

1.1 The NPS EN-3 (November 2023) sates that, along with associated infrastructure, a solar farm requires between 2 to 4 acres for each MW of output [Para 2.10.17].

1.2 There are currently three main configurations of solar panel used in the UK, each has different physical and operational characteristics:

- Fixed South Facing (FSF) panels are installed in rows stretching from east to west, with the receiver side of the panel facing south. The panels will be fixed on frames at a set (immovable) angle to the ground (dependent on latitude and ground slope). The angle will have been optimised prior to installation.
- Single Axis Trackers (SAT) are installed in rows stretching from north to south. A single table of panels rotates about the north-south axis so that the panel is perpendicular to the incident irradiation from the sun as much as possible.
- East-West (E-W) panels are installed in rows stretching from north to south, with panels facing both east and west with an apex between them. As with FSF, the panels will be fixed on frames at a set (immovable) angle to the ground.

1.3 Panels may be orientated vertically (portrait) or horizontally (landscape) and may be mounted with one or more above (or next to) the first.

1.4 Different configurations have different benefits and disbenefits, and some configurations may be better suited to some locations than others.

1.5 As the sun tracks in the sky, both throughout each day and throughout the year, the inbound irradiation on the panels will vary and frames, axes and panels will be oriented to best optimise irradiation at that location, for that configuration.

1.6 One characteristic which is common to all three configurations is the shadowing effect of one panel on another panel from time to time. Site designers will seek to optimise output given the specific location, the available land, and a known grid connection capacity and this will include reducing panel-on-panel shadowing effects where possible.

1.7 Latitude will impact on the effects of shadowing and site-specific mitigations at FSF layouts. In higher latitude locations, rows of FSF panels may be spaced further apart to reduce shadowing effects, while at lower latitudes spacing may not be as large. This is because the sun tracks lower in the sky when seen from higher latitude locations, casting longer shadows.

1.8 Spacing FSF panels further apart increases the ratio of acres / MW for the installation, but also increases the expected generation from each of the panels and therefore the ratio of energy generated over capacity installed (MWh / MW(p)) for the facility.

1.9 A similar analysis can be carried out for SAT and E-W configurations, however it should be noted that generally:

- SAT requires more land per MW(p) but has the potential to generate more MWh/MW(p) than FSF
- FSF requires more land per MW(p) but has the potential to generate more MWh/MW(p) than E-W

1.10 Other local characteristics such as location and land topography may determine which configuration or combination of configurations delivers the greatest benefit in terms of annual MWh generation from a proposed development while considering the land area used, cost of installation and ongoing cost of operation and maintenance of specific developments.

2 Overplanting

What is overplanting?

2.1 The NPS EN-3 (November 2023) describes 'Overplanting' as

> *"The situation in which the installed generating capacity or nameplate capacity of the facility is larger than the generator's grid connection"* [Para 2.10.55, Footnote 92]

2.2 By selecting sites with the right blend of characteristics, developers will bring to commercial operation, solar projects which deliver decarbonisation, security of supply and affordability benefits.

2.3 An important consideration for developers is maximising the utilisation of the available grid connection capacity through the life of the project because projects with greater lifetime outputs deliver greater decarbonisation and security of supply benefits and should also be more affordable. Location-specific commercial and environmental constraints also need to be considered in order for projects to be consentable and financially rational.

2.4 Solar panels degrade as they get older, meaning that they produce less energy year-on-year. Degradation is caused by physical processes relating to weather effects including the effects of light on the panels over time. Overplanting provides an opportunity to increase the quantity of valuable zero-marginal cost MWh of electricity transmitted from a solar scheme to the grid over its lifetime.

2.5 Overplanting is dependent on sufficient suitable land area to be available to the scheme for installing solar panels. Overplanting is commercially rational on all types of schemes subject to the availability and suitability of land near to the point of connection. However, there may be legitimate reasons why a particular developer, at a particular location, does not pursue an overplanting strategy.

2.6 Further, overplanting is also commercially rational for both standalone schemes and schemes which include co-located storage facilities, although the optimum extent of overplanting at each type of scheme (i.e. with or without co-located storage) is likely to be different. Indeed (and further subject to the availability of land) different schemes may have different optimum overplanting strategies.

2.7 At the DCO application stage, the detailed design may not be sufficiently developed to be able to fix the *optimum* overplanting strategy. In these circumstances, as the detailed design progresses the developer must judge appropriate trade-offs to make to deliver the optimum deliverable scheme at a specific location.

The benefits of overplanting.

2.8 Overplanting increases the generation potential of a scheme through a fixed capacity network connection, especially when the effects of panel degradation are considered, but balance is required. Overplanting implies that when irradiation is high and panels have not yet degraded, sites may be forced to self-curtail because, at those times, they will be generating more power than they are able to export. At these times, inverters will limit the amount of energy exported to the grid, and excess energy is lost. This is sometimes called *clipping*.

2.9 However, when irradiation is lower, such that panels are not generating to their maximum potential, it is clear than an overplanted scheme will generate more than a scheme which is not overplanted. This is because at those times output will not be limited by the grid connection capacity. This is illustrated in Figure 1 below.

2.10 The royal blue line in Figure 1 shows output (against the dark blue connection capacity line) of a unitary solar scheme on an average irradiation day (left hand graph) and a high irradiation day (right hand graph). Note that the term 'unitary' is here intended to describe any scheme where the total capacity of the panels installed equals the export capacity of the scheme. The grey line on each graph shows the output of a solar scheme which is identical to the representative scheme, except that it has been overplanted (i.e it has more panels, but no more grid capacity, than the unitary scheme).

2.11 On an average irradiation day, more energy is exported from the overplanted scheme than the unitary scheme and no energy is clipped. However, on a high-irradiation day, more energy is exported each hour from the overplanted scheme until the grid capacity limit is reached and the overplanted scheme experiences clipping. At this time, the output from the overplanted scheme 'flatlines' until irradiation reduces the overall output of the scheme to below the grid export limit again.

2.12 As solar panels degrade, clipped energy volumes will reduce. This is because the peak output from a degraded scheme is lower than the peak output from a scheme which has not yet degraded. This means that, under the same irradiation conditions, the maximum generation from the degraded scheme is lower.

2.13 In time, the maximum achievable generation from the scheme may fall below the grid export limit. This case is illustrated by the light blue lines in Figure 1 which show overplanted schemes exporting more energy than unitary schemes and not incurring any clipping.

2.14 Developments which are overplanted therefore generate more low-carbon electricity than unitary schemes. Overplanted schemes increase the utilisation of the available grid connection capacity throughout a scheme's operational life. This is a key driver of enabling the transmission of as many MWh of energy onto the grid through the (limited) available grid connection resource as is possible, noting that, nationally, grid connection capacity is currently constrained and is projected to remain constrained over the coming decade.

2.15 Degradation of solar panels may mean that panels need to be replaced through the operational life of the scheme. Other than in instances of the premature failure of individual panels (which would likely be replaced under a warranted maintenance arrangement) panel replacement is likely to be guided by data gathered through monitoring panel performance throughout the life of the project. This may be carried out on a rolling or programmed basis subject to any parameters which defined the assessment of the scheme's impacts on the environment.

2.16 The opportunity to overplant is driven by scheme-specific characteristics, such as available land area, cable access routes, and grid connection capacity. Overplanting (or the level to which overplanting is proposed) also has commercial drivers and these may differ from scheme to scheme and between developers.

2.17 It is therefore expected that solar schemes will overplant where possible while balancing commercial, geographical and environmental considerations.

2.18 Developments which seek to make best use of available grid connection capacity will present as highly viable schemes and therefore will help to ensure that the need for large-scale solar generation can be fulfilled. This is an important and relevant factor in the decision-making process.

2.19 However, there are limits to overplanting.

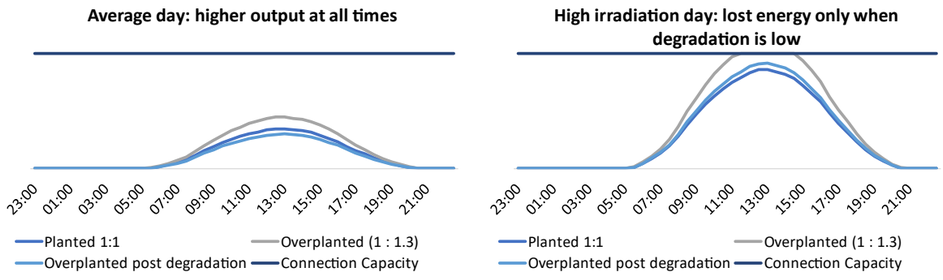


Figure 1: Illustrating clipped generation vs. optimised generation on overplanted solar schemes vs. unitary schemes [Author analysis]

2.20 Given the constrained nature of available connections to the NETS, developers of solar schemes typically look for suitable locations close to existing and available grid connection points.

2.21 Further, schemes which maximise the generation and transmission of energy through the available connection will deliver a greater quantum of national climate change and energy security benefit through their operation, than schemes which deliver less energy to the grid.

2.22 Developers are therefore likely to aim to make greatest use of the existing and available grid connection at their contracted substation, by which it is meant to design a scheme which will generate the greatest volume of low-carbon energy over the lifetime of the scheme.

2.23 Overplanting supports developers in achieving this aim, but there are limits to the benefits of overplanting.

Limits to the net benefits of overplanting.

2.24 Figure 2 and Figure 3 below show the results of an analysis of the average annual output of a solar scheme per MW installed (y-axis) as a function of the overplanting ratio (x-axis), for a Fixed South Facing (FSF – orange) scheme and a Single Axis Tracker (SAT – blue) layout.

2.25 These figures have been derived from inputs which are appropriate for all solar schemes generally and therefore the conclusions following are also applicable across all schemes, excluding the impacts of location-specific parameters.

2.26 As the overplanting ratio of a scheme increases, "unusable" solar generation at times of high irradiation and early in the scheme's operational life increases. Those losses may be compensated for by more output in times of lower irradiation and more generally later in operational life, as illustrated previously. The level of overplanting determines the overall balance between clipped generation during times of high irradiation, and incremental generation at times of lower irradiation.

2.27 Figure 2 below describes the average annual output of the scheme in terms of a Grid Utilisation metric (%) over the first 40 years of its operation.

2.28 Grid Utilisation is calculated as the total MWh exported through the grid connection during the life of the project, divided by the maximum MWh export possible through the connection during the life of the project, i.e. [grid connection capacity] x [project life].

2.29 The points on Figure 2 show the lifetime Grid Utilisation for schemes with an overplanting ratio of between 0.8 and 2.2, at regular increments under either an FSF (orange) or a SAT (blue) layout.

2.30 The orange and blue lines are straight lines of best fit through each "curve" of points. These are for visual aid only, as they help the reader to identify the gradient of the curve which passes through each point, and where that gradient changes.

2.31 As the overplanting ratio increases, so too does Grid Utilisation. However, beyond an overplanting ratio of approximately 1.5 (where the coloured points are furthest above the same colour straight trend lines), the incremental benefit of overplanting on grid utilisation reduces (the points start to return down towards the straight line, and ultimately fall below it).

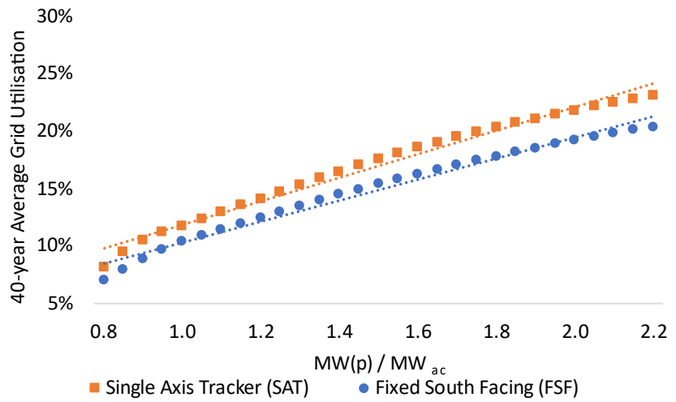


Figure 2: Grid Utilisation increases as overplanting increases, but gains are incrementally smaller above a ratio of c.1.5. [Author Analysis]

2.32 Figure 3 following shows that the average annual output of a scheme over the first 40 years of its operation on a per MW installed basis decreases only when the overplanting ratio increases above a certain level.

2.33 In other words, overplanting a solar installation increases the load factor achieved 'at the grid'. Overplanting also does not noticeably reduce the load factor of the solar farm 'at the panel' until the overplanting factor increases above a certain level.

2.34 Beyond an overplanting ratio of c.1.3, the curve between the points starts to turn downwards more steeply than it did for a lower overplanting ratio, implying an increasing inefficiency as overplanting ratio increases beyond c. 1.3.

2.35 This analysis does not seek to establish 'hard and fast' rules around overplanting, but together Figure 2 and Figure 3 do provide quantifiable evidence which suggests that the "optimum" overplanting ratio for a solar scheme, may lie between 1.3 and 1.5, depending on the local characteristics of the site in question, such as topography, archaeology, , land and other environmental factors which may reduce the scope for overplanting.

2.36 The extent to which a proposed location can be overplanted cannot be determined in isolation, however. There is an intrinsic relationship between orientation, overplanting and land take which must

be considered in the design of all developments in relation to optimising the benefits of the scheme while respecting the planning balance.

2.37 The output from any illustrative design may be based on different ways in which the site may be laid out within the parameters which define the extent of the scheme, and which make use of an effective overplanting ratio. The final design and layout will be a reflection of the available technology (and overplanting ratio) arranged in accordance with the assessed parameters.

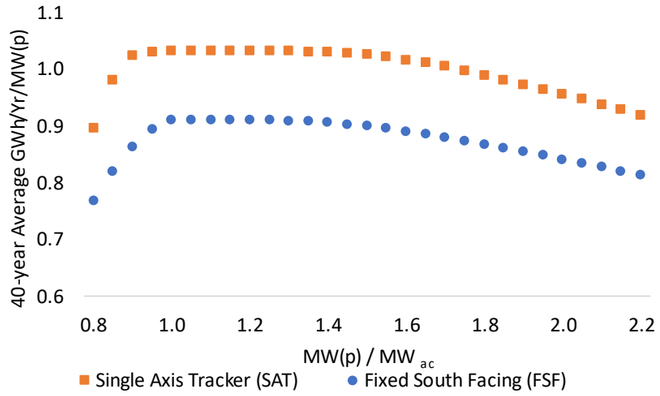


Figure 3: GWh/Yr/MW decreases as overplanting increases, and losses are incrementally larger above a ratio of c.1.3.
[Author Analysis]

Appendix B - Review of the Statement of Need

The Applicant has reviewed the Statement of Need [APP-320], and sets out the following updates:

Chapter 4 – a synopsis of relevant strategy and policy publications

Chapter 4 of the Statement of Need sets out the UK's legal requirement to decarbonise and summarises the latest expert views on the urgency for and scale of low-carbon infrastructure needed to deliver the UK's Net Zero legal obligations. Summaries of important and relevant publications are included below.

Mission Zero (January 2023)

Mission Zero was published in January 2023 by Rt Hon Chris Skidmore MP, Chair of government's Independent Review of Net Zero. The report was commissioned to ask how the UK might deliver its own net zero targets in a manner that was more affordable, more efficient, and in a pro-business and pro-enterprise way. Mission Zero recognises the importance of taking action on net zero. It also recognises the fact that the energy transition is a new economic reality, particularly amid the global reality of the energy security crisis and rising gas and fossil fuel prices in 2022.

Mission Zero reconfirms the global importance of the UK's commitment to achieve net zero and makes recommendations which should be taken forwards now, alongside other wider recommendations. It states that the UK should be proud of the steps it has taken so far to achieve net zero, and that climate change and the economy are intertwined.

It also states that the UK must however move quickly, not only to protect and secure delivery of our national climate commitments but also to deliver the economic benefits of moving away from a carbon economy. The review finds that *"The benefits of net zero will outweigh the costs"* and believes that *"This is too important to get wrong"* (p8).

Mission Zero makes the following recommendations which are relevant to the growing need for large-scale ground mount solar to be deployed in the UK:

- Priority Mission no. 2: *"Full-scale deployment of solar including a rooftop revolution to harness one of the cheapest forms of energy, increase our energy independence and deliver up to 70GW of British solar generation by 2035"*. Para 8.5.9 of the Statement of Need [APP-320] states that *"it is the Applicant's view that large-scale solar must be considered as additional to, as opposed to instead of, the need for continued development in distribution connected, smaller scale solar, and this includes the development of rooftop solar."* The Applicant welcomes the inclusion of a 'rooftop revolution' in plans to decarbonise but such a revolution would not diminish the need for the scheme, for reasons described in Section 7.6 of the Statement of Need [APP-320].
- Priority Mission no. 8: *"Working towards gas free homes by 2035* [or earlier]*"* and Recommendation 1 is to set a legislative target for gas-free homes and appliances. Although the legislative target is unlikely to be set under the current administration, the shift to low-carbon sources of heat in homes is clear.
- Recommendation 15 is the swift delivery of Zero Emissions Vehicles and the ZEV mandate to apply from 2024. Powering Up Britain (see following) remains ambitious and forward-thinking in its targets for the decarbonization of light road transport, but is less explicit in regard to associated timelines – noting the practical requirement to remain compatible (from a supply chain / industry change perspective) with the wider European position. On p27, Powering Up Britain states *"Between 2030 and 2035, new cars and vans will only be able to be sold if they offer significant zero emission capability"*. Where legislative targets for ZEVs have recently been pushed back, three manufacturers – Mini, Jaguar Land Rover (JLR) and Nissan – have already stood fast in their drives to become 100% electric brands from 2026, 2025 and 2030 respectively.
- Priority Mission 8 and Recommendations 1 and 15 add weight to the argument for rollout of solar and other renewable generation to meet the growing demand which will arise from their delivery.
- Priority Mission no. 9 is to *"Embed nature and habitat restoration … maximising co-benefits for climate and nature wherever possible."* Ground mount solar can deliver on this Priority Mission through delivering biodiversity net gain as a result of development.
- Recommendation 11 is to *"Set up taskforce and deployment roadmaps in 2023 for solar to reach up to 70GW by 2035."* This Recommendation recognises that the current pipeline for solar projects in the UK, and the most ambitious industry projections for solar deployment, are not yet of sufficient scale to meet the Government's ambition without undue levels of risk associated with the deployment of other technologies.

Mission Zero recognises the importance of local action and local plans to the achievement of net zero. People and places must be empowered to deliver net zero through a full alignment on a local level with a net zero future through the introduction of a 'net zero test'. All local authorities will be required to play their part in achieving carbon neutrality in the future. Ground-mounted solar (at both Nationally Significant infrastructure and local planning authority scale) is a leading deliverable low-carbon generation technology which will enable local authorities to deliver against plans to decarbonize on a local level.

Powering Up Britain (March 2023)

The UK Government's Powering Up Britain Strategy, Powering Up Britain: Energy Security Plan and Powering Up Britain: Net Zero Growth Plan sets out how the UK will achieve energy security, promote green growth and meet its net zero targets.

Powering Up Britain was published in March 2023 to present the most up to date information on the Government's energy strategy, explaining *"how the Government will enhance our country's energy security, seize the economic opportunities of the transition* [to renewables]*, and deliver on our net zero commitments"* (p6), and observes that *"The* [Mission Zero] *Review was unequivocal in its assessment that the plan set out in the Net Zero Strategy was the right one, whilst providing recommendations to strengthen delivery."* (p16)

Powering Up Britain reaches the conclusion that *"We need investment at scale … to rapidly rollout existing technologies … at pace to meet our ambitions for decarbonising power and [lower] wholesale UK electricity prices."* [p9] and observes that *"a significant proportion of technologies we will need for 2050 are currently at the demonstration or prototype phase"* [p9]. This implies that while we should continue to strive for innovation, waiting for novel technologies to deliver comes with risk (as some technologies may not deliver) and therefore the Government's strategy to deliver a rapid rollout of existing technologies while continuing to invest in new technologies is of critical importance in the fight against climate change.

Powering Up Britain recognises the huge potential solar generation can have in decarbonisation. Large-scale ground-mounted solar is a mature technology which is capable of delivering a reliable and rapid rollout once projects are consented, and is one of the cheapest forms of electricity generation readily deployable at scale.

Powering Up Britain emphasises the need to maximise the deployment of ground-mounted solar. The strategy (pages 37-38) states that the *"Government seeks large scale solar deployment across the UK, looking for development mainly on brownfield, industrial and low/medium grade agricultural land. The Government will therefore not be making changes to categories of agricultural land in ways that might constrain solar deployment".*

The clarification makes it clear that there is no intention to change the definitions of BMV land. It also states that it expects solar developments to take place on low/medium grade agricultural land.

The Scheme will make an important contribution in achieving the aims in Powering Up Britain, strengthening the case for the development.-

Energy Act 2023

In October 2023, the Energy Act 2023 (EA 2023) came into law. EA 2023 aims to strengthen energy security and support the delivery of net zero and affordable energy bills for households in the long term.

EA 2023 brings heat networks into the remit of the Office for Gas and Electricity Markets (Ofgem), further supporting the UK's whole-system approach to energy, and updates their remit further so that the Office considers net zero targets as part of its everyday decisions.

New measures will also support consumers in their transition to 'smart products' which will pave the way to the automatic response of UK electricity demand at times of abundance or potential scarcity – a key measure if households are to deliver flexibility to the UK's energy system.

On the energy supply side, EA 2023 legislates for the regulation of nuclear fusion, an important enabler of the UK's prototype fusion ambitions for 2040.

EA 2023 also introduces a new licensing framework for CO2 and hydrogen transport and storage to help deliver the UK's first carbon capture and hydrogen production sites.

Further provision is made within EA 2023 to support the growth of offshore wind while ensuring that compensation for any adverse environmental effects is delivered strategically as opposed to being delivered on a scheme-by-scheme basis.

EA 2023 should therefore be seen as enabling legislation which will support the UK to deliver on technology development to achieve net zero by 2050. Further discussion on those technologies was included in Chapter 5 of the Statement of Need [APP-320], and an update is provided below.

Chapter 5 – Progress against the Low Carbon Transition Plan

Chapter 5 of the Statement of Need [APP-320] describes how decarbonisation in the UK has been achieved to date, through a substantial reduction in the use of coal and the deployment of many wind and solar schemes and explains why a number of technologies which were foreseen in previous carbon plans to make tangible contributions to decarbonisation (and for which the NPS were largely written) have hitherto lagged behind these in terms of deployment.

National Grid ESO's 2023 Future Energy Scenarios publication updates the 2022 publication from which data presented in the Statement of Need [APP-320] was sourced, however the quantum of the changes from its 2022 to its 2023 publication on many data items is not significant and therefore the analysis has not been reproduced in full in this summary.

For example, the ESO's 2022 pathways for solar capacity ranged from 25 to 42GW in 2030 and 57 to 92GW in 2050. The ESO's 2023 pathways for solar capacity ranged from 25 to 41GW in 2030 and 57 to 91GW in 2050.

The two major themes present in National Grid's 2023 FES are those of grid connections and flexibility.

Regarding Grid connections, National Grid expect *"significant network investment … to bring* [offshore wind] *power onshore and to move it from coastal landing points to demand centres"* (p130), the need to overcome barriers *"including network connections"* to enable onshore wind to come forwards (p131), and that *"Potential blockers to further development [of solar capacity] include grid capacity and connections"* (p132).

National Grid define flexibility as "*the ability to shift the consumption or generation of energy in time or by location"* and note that changes are needed to the scale of flexibility available to the electricity system because, among other reasons, *"peak demand will not be the only driver of system stress. It will be driven as much by peaks and troughs in electricity supply"* (p179). Demand-side flexibility, i.e. the movement of demand to times of an abundance of supply, *"will be increasingly important"*. Flexibility is discussed in the update to Chapter 8 provided below.

In regard to nuclear development, Sizewell C continues to progress although no investment decision has yet been taken. In October 2023, Great British Nuclear down-selected six companies through the initial stage of a nuclear technology competition for small modular reactors. Successful companies were considered to *"offer the greatest confidence in being able to make a final investment decision in 2029"* and be *"most able to deliver cutting-edge technology by* [the] *mid-2030s"*. The UK's nuclear fusion strategy of October 2023 sets an objective for a UK demonstration of commercial viability of fusion from a UK prototype plant which delivers net energy in prototype form by 2040. It therefore remains highly likely that no nuclear facility other than Hinkley Point C, will be able to join the existing Sizewell B reactor on the grid before 2035, the date that Government is targeting for full decarbonisation of the electricity system.

The ESO also state that *"Low carbon dispatchable power capacity is expected to grow sharply beyond 2028 in our net zero scenarios ….* [aligning] *with the development of Carbon Capture Usage and Storage (CCUS) transport and storage networks"* (p135). Critically, such development is required alongside, rather than instead of, a significant growth in solar and other renewable electricity generation capacity which is also needed. A decision on the planning application for the Net Zero Teesside project, a Track 1 CCGT + CCUS project with associated CO2 transportation infrastructure, which is part of the East Coast Cluster, was expected to be published in November 2023 but has been delayed until February 2024. Risks remain associated with the timely development of CCUS in the UK. National Grid's pathways include the majority of UK hydrogen production capacity as electrolysis until at least the early 2030s. The electrolysis of hydrogen requires a significant amount of low-carbon electricity.

Chapter 6 – Future demand for electricity is growing

Chapter 6 confirms that future electricity demand will grow significantly through the decarbonisation-through-electrification of other industry sectors. These themes have not materially changed since the submission the Statement of Need [APP-320].

In September 2023, the Government announced a relaxation of the regulatory requirements it was looking to impose on home heating and transport electrification, instead allowing current market momentum to deliver benefits by providing competitive products to consumers thereby also relieving the financial burden of achieving net zero on homes and households. For example, despite a delay to the UK's ban on the sale of new petrol and diesel cars, three large manufacturers – Mini, Jaguar Land Rover (JLR) and Nissan – have already stood fast in their drives to become 100% electric brands from 2026, 2025 and 2030 respectively. Future electricity demand is still anticipated to approximately double from current levels by 2050, and the implications for future energy supply as set out in Chapter 7 of the Statement of Need [APP-320] also remain consistent with the statement as submitted.

Chapter 8 – Decarbonisation can maintain or enhance Security of Supply

Chapter 8 explains the contribution of solar generation to security of supply and the Applicant is augmenting the information provided at submission with further information relating to the contribution of solar power specifically, to system security.

At page 116 of its 2023 Future Energy Scenarios document, National Grid confirm that security of supply *"refers to meeting all electricity demand at any given time"* and states that *"Traditionally, risks to meeting electricity security of supply, have been at times of high demand, particularly peak demand. In the future, these risks will also be driven by periods of over-supply and/or supply and demand mismatch."*

Figure 8-2 of the Statement of Need [APP-320] presents the results of an analysis of future electricity demand and supply, and illustrates the importance of solar generation to meeting demand during summer months, when typically in the UK, demand is higher during daylight hours (i.e. when solar generates) and when wind generation is seasonally lower.

The Capacity Market, which is one of the UK's primary measures for delivering security of supply, applies a de-rating factor to contracts on a technology-by-technology basis. All technologies attract a de-rating factor, and all de-rating factors are below 1. This highlights that no single technology can be relied upon to deliver security of supply at all times (else it would have a de-rating factor of precisely 1).

Critically, the de-rating factor for solar has nearly tripled over the period 2021 to 2027, demonstrating how quickly the market is moving away from traditional norms of supply risk at winter evening peak times only, and how important a multi-technology mix is to the achievement of security of supply for consumers at all times of the day and year.

Section 7.1 of the Statement of Need [APP-320] describes that, according to Government's Energy White Paper (2020), meeting a possible doubling of electricity demand by 2050 *"would require a four-fold increase in clean electricity generation with the decarbonisation of electricity increasingly underpinning the delivery of our Net Zero target."*

A significant increase in UK electricity generation capacity is required to meet growing demand and deliver security of supply under different weather conditions. Because the weather is uncontrollable, more capacity is needed to ensure that demand can be met even when renewable output is low. The implication is that when renewable output is high, there is a risk of oversupply. The laws of supply and demand in liquid markets such as electricity, imply that at such times, the price of the traded commodity – electricity – will decrease.

As National Grid ESO also state in their 2023 Future Energy Scenarios report: *"There is day-to-day uncertainty due to weather but in general, solar generation is quite predictable over the course of a year and the position of the sun and its expected radiation levels over the year are well known. This means it can be a great asset for meeting annual demand levels, especially* [and therefore by extension, not exclusively] *when coupled with suitable storage"* (p132).

Figure 7-2 of the Statement of Need [APP-320] shows National Grid's projections of installed generation capacity in the UK by 2030 and 2050. Not only is renewable generation capacity expected to increase between now and 2030, but so is flexible capacity (shown as orange in that Figure). These projections did not materially changed between FES 2022 and FES 2023 therefore Figure 7-2 has not been reproduced with new data.

Solar generation, and its potential abundance at foreseeable times of the day and year, will provide regular market signals which support the growth in demand-side flexibility (shifting demand to times of abundant renewable generation) and storage. As well as providing essential support to the security of supply during daylight hours, growth in solar generation will also encourage a shift in demand away from times of traditional peak needs, and/or store abundant energy which can then be dispatched when it is needed.

National Grid's Future Energy Scenarios document also describes and evaluates the potential for curtailment to occur in the UK's future electricity system.

The Applicant considers that given this focus, it is important to explain the reasons for current levels of curtailment in the UK, and the prices currently paid to generators for some curtailment actions.

Currently, the majority of curtailment in the UK is experienced on the large-scale wind fleet. Much of this is due to transmission constraints, which occur when the electricity network linking the point of generation to the major points of consumption, does not have the capacity to transmit all of the generation at certain times, but in particular when generation output is high.

Curtailment for network constraints currently results in a compensation to the asset operator for the electricity they could have generated but have not been able to transmit to market. In the 12 months starting 1st October 2022 and ending 30th September 2023, National Grid data records metered wind to be 63TWh. Constraints due to location totalled 3.3TWh (c.5% of net generation) and constraints due simply to there being 'too much wind energy on the system' totalled c.0.6TWh, or less than 1% of net generation.

Data from FES (2023) Table FL.18 shows that average curtailment in the years 2031 – 2040 may range from 31TWh ('Leading the Way') to 46.8TWh ('System Transformation') but a deeper dive into the data (via Table ES1 of the same report) shows that curtailment of *solar* generation is anticipated to be much lower, with an average annual curtailment 2031-2040 ranging from 2.4TWh - 2.7TWh.

Curtailment in the UK is therefore currently more to do with where electricity is generated, than how much electricity is generated, and curtailment in the UK is anticipated to be associated more with wind generation than with solar generation.

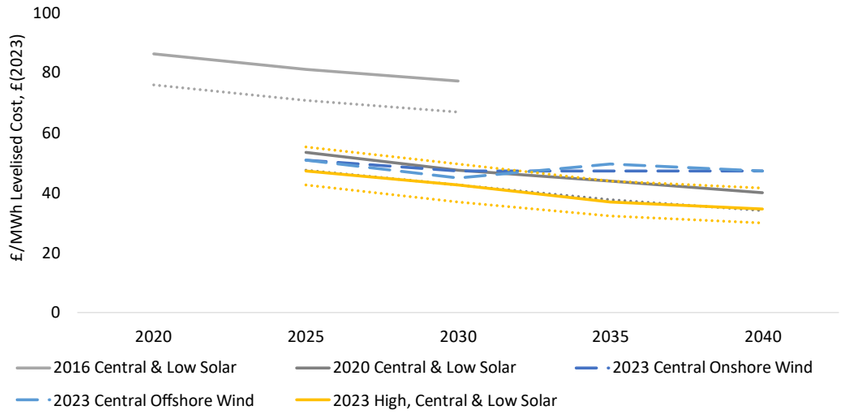
An asset located on a transmission network which is well connected to demand centres, is unlikely to be curtailed for the same reasons as the majority of current curtailment in the UK, however the possibility of curtailment for non-locational reasons remains.

In such circumstances, curtailment would occur because more energy was being generated than that which could be consumed or stored at that time. Figure 10-2 of the Statement of Need [APP-320] shows that an excess of supply reduces market price, incentivising price-sensitive demand to increase, or *in extremis*, incentivising supply to shut down so as to avoid having to pay (rather than be paid) to generate. Critically, neither of these outcomes results in a compensation payment from consumers to the asset operator for the electricity they have not generated.

Chapter 9 of the Statement of Need [APP-320] describes that the Scheme proposes to connect to a well-connected section of the NETS which has available transmission capacity. As such, transmission constraints are unlikely to cause curtailment at the Scheme and as such, during its operational life, the Scheme is unlikely to receive compensatory payments for curtailments which would ultimately be funded by consumers.

A growth in flexibility (including demand-side response, storage, interconnection and hydrogen) will help to minimise the curtailment in the future UK electricity system which may come with the build out of large capacities of renewable generation. But because renewable electricity is variable, the UK may not be able to meet demand at times of low renewable output *without* the build out of large capacities of renewable generation.

Insufficient renewable generation capacity may cause:



- Power cuts (contrary to Government's aim to ensure security of supply)
- Price spikes (contrary to Government's aim to shield consumers from volatile energy markets), and/or
- Stand-by fossil fuel assets to generate (contrary to Government's aim to decarbonise the electricity system by 2035)

The alternative approach, which is Government's approach, is the build-out of large capacities of renewable generation. This approach meets the Government's aims and provides opportunities for market approaches to manage curtailment through flexibility, by:

- Using curtailed energy to support security of supply when demand is high
- Keeping consumer costs down by capturing and storing energy when it is abundant (therefore cheap) and releasing it when it is needed
- Displacing stand-by fossil assets by using stored energy as a low-carbon "peaking" energy resource, further supporting the Government's aim for the electricity system to be operating with net zero carbon emissions from 2035.

One such flexibility measure which has already gained traction in the UK and has been enabled by the introduction of smart meters into domestic homes, is the introduction of 'time of use tariffs' (ToUTs). ToUTs apply different prices to consumption metered at different times of the day or year. ToUTs provide customers with the opportunity to schedule their electricity consumption towards times of low prices and away from times of high prices. Consumers would benefit from their actions through their normal utility bills.

In summary, future curtailment, if/when it occurs, would be a 'good' problem for the UK power sector to have. If it occurs, it would be because large capacities of renewable generation have already been built out to deliver low-carbon supplies to meet demand, deliver security of supply, meet carbon reduction targets and reduce wholesale costs of energy.

Further, the market signals associated with curtailment, will drive the development of consumer and/or supply side flexibility to make efficient use of abundant resources and drive further security of supply, decarbonisation and affordability benefits for consumers across the whole energy system.

Chapter 10 – Solar is economically efficient in the UK

Chapter 10 provides an analysis of the economic viability of large-scale solar generation as a future contributor to a low-carbon GB electricity supply system in comparison to alternate technologies. In June 2023, the Department for Energy Security and Net Zero published an update to their Electricity Cost of Generation report (last updated 2020). Assumptions for solar PV plant capacity, construction timings, construction and infrastructure costs, pre-licensing, technical and design costs and variable operating costs were updated as part of the 2023 report review, resulting in a decrease in the expected levelised cost of generation of solar electricity in the UK both on an absolute scale vs. the 2020 report, and on a relative scale vs. the 2023 report's projections for offshore wind.

The Government's 2023 solar LCOE estimate is 10% lower than the 2020 estimate on a consistent 2023 real price basis, as shown in the updated chart following.

Figure 1: Government's Cost of Generation. An evolution of Levelised Cost forecasts

Recently published information therefore continues to support the conclusions made in the Statement of Need [APP-320] that solar power is already cheaper than fossil fuel generation both in relation to its marginal cost of generation and its Levelised Cost of Energy, that it is already highly competitive against current conventional and renewable generation costs, and is predicted to retain at a cost advantage for the decades ahead.

The overall conclusions included in Chapter 12 of the Statement of Need therefore remain valid and relevant to the Scheme.

Appendix C - Review of viewpoints for which photomontages are presented

Viewpoint	Significant Effects Yes/No	Photo-montage Yes/No	Rationale
LCC-C Broxholme Lane/Main Street [APP-253]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP08 was considered representative of views from this receptor and more appropriate for taking forward to photomontage. That location was considered more informative in respect of potential visibility and therefore warranting of greater exploration.
LCC-H Cowdale Lane [APP-258]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP34 and LCC-O were considered representative of views from this receptor and more appropriate for taking forward to photomontage. These locations were considered more informative in respect of potential visibility and therefore warranting of greater exploration. From the VP LCC-H location, there are no direct views of the solar arrays, due to screening and filtering by intervening landform and vegetation. As a result, no significant visual effects have been identified. However, for road users on this Transport Receptor (T015), significant adverse effects have been identified at construction and operation year 1 (see Table 8.65 in Chapter 8), as users pass immediately alongside the southern edge of the West Burton 3 Site. As this VP is located upon T015, the assessment of effects is considered to be representative of the wider Transport Receptor rather than this specific location.
LCC-0 Cowdale Lane [APP-265]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP01 Brox/198/1 [APP-194]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP02 was considered representative of views from this receptor and more appropriate for taking forward to photomontage. That location was considered more informative in respect of potential visibility and therefore warranting of greater exploration.
VP02 Brox/198/1 [APP-195]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP07 Broxholme Lane [APP-200]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP06 and VP08 were considered representative of the nature of views from this receptor and more appropriate for taking forward to photomontage. These locations were considered more informative in respect of potential visibility and therefore warranting of greater exploration.
VP08 Broxholme Lane and Brox/197/1 [APP-201]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP09 Brox/196/1 [APP-202]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.

VP10 Brox/196/1 [APP-203]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP09 was considered representative of views from this receptor and more appropriate for taking forward to photomontage. That location was considered more informative in respect of potential visibility and therefore warranting of greater exploration.
VP18 Sturton Road [APP-211]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP26, VP27 and VP28 were considered representative of views from this receptor and more appropriate for taking forward to photomontage. These locations were considered more informative in respect of potential visibility and therefore warranting of greater exploration.
VP21 Sturton Road and Saxi/203/1 [APP-214]	Yes	Yes	See 6.3.8.3 Environmental Statement – Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP23 Sykes Lane [APP-216]	Yes	Yes	See 6.3.8.3 Environmental Statement – Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP24 Sykes Lane and other route with public access [APP-217]	Yes	Yes	See 6.3.8.3 Environmental Statement – Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP25 Sykes Lane [APP-218]	Yes	No	See 6.3.8.3 Environmental Statement – Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP23 and VP24 were considered representative of views from this receptor and more appropriate for taking forward to photomontage. These locations were considered more informative in respect of potential visibility and therefore warranting of greater exploration. From VP25 there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result, no significant visual effects have been identified. However, for road users on this Transport Receptor (T011), significant adverse effects have been identified at construction and operation year 1 (see the Table 8.62 in Chapter 8) as users pass immediately alongside the southern edge of the West Burton 2 Site. As this VP is located upon T011 (Sykes Lane), the assessment of effects is therefore considered to be representative of the wider Transport Receptor rather than this specific location.
VP26 Sturton Road [APP-219]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP27 Sturton Road [APP-220]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP28 Sturton Road [APP-221]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.

VP33 Cowdale Lane [APP-226]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP34 Cowdale Lane [APP-227]	Yes	Yes	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP44 Cowdale Lane [APP-237]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP34 and LCC-O were considered representative of views from this receptor and more appropriate for taking forward to photomontage. These locations were considered more informative in respect of potential visibility and therefore warranting of greater exploration. From VP44, there are no direct views of the solar arrays due to screening and filtering by intervening landform and vegetation. As a result no significant visual effects have been identified. However, for road users on this Transport Receptor (T015), significant adverse effects have been identified at construction and operation year 1 (see Table 8.65 in Chapter 8), as users pass immediately alongside the southern edge of the West Burton 3 Site. As this VP is located upon T015, the assessment of effects is considered to be representative of the wider Transport Receptor rather than this specific location.
VP45 Cowdale Lane [APP-238]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. Through consultation with representatives at LCC, VP46 and LCC-O were considered representative of views from this receptor and more appropriate for taking forward to photomontage. These locations were considered more informative in respect of potential visibility and therefore warranting of greater exploration.
VP46 Cowdale Lane [APP-239]	Yes	Yes	See 6.3.8.3 Environmental Statement – Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP53 A1500 / Tillbridge Lane [APP-246]	Yes	Yes	See 6.3.8.3 Environmental Statement – Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.
VP54 A1500 / Tillbridge Lane [APP-247]	Yes	No	See 6.3.8.3 Environmental Statement – Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. As demonstrated by the Viewpoint photography for VP54 [APP-247], VP55 [APP-248] and VP56 [APP-249], views towards the adjacent West Burton 3 Site are typically well screened by roadside vegetation. Through consultation with representatives at LCC, VP53 [APP-246] was considered representative of views from this receptor. That location was considered more informative in respect of potential visibility and therefore warranting of greater exploration.
VP55 A1500 / Tillbridge Lane [APP-248]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description. As demonstrated by the Viewpoint photography for VP54 [APP-247], VP55 [APP-248] and VP56 [APP-249] views towards the adjacent WB3 Site are typically well screened by roadside vegetation. Through consultation with representatives at LCC, VP53 [APP-246] was considered representative of views from this receptor and more appropriate for taking forward to photomontage. That location was considered more informative in respect of potential visibility and therefore warranting of greater exploration.
VP56 A1500 / Tillbridge Lane [APP-249]	Yes	No	See 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074] for description.

			As demonstrated by the Viewpoint photography for V VP54 [APP-247], VP55 [APP-248] and VP56 [APP-249] views towards the adjacent WB3 Site are typically well screened by roadside vegetation. Through consultation with representatives at LCC, VP53 [APP-246] was considered representative of views from this receptor and more appropriate for taking forward to photomontage. That location was considered more informative in respect of potential visibility and therefore warranting of greater exploration.

Appendix D - Comparative assessment of landscape and visual effects of tracker panels and fixed panels.

Table D.1: Assessment of Tracker Panels and Fixed Panels on Landscape Receptors

			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Landscape Receptors		Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Landscape Effects	Landscape Effects (after construction/ year 1)	Landscape Effects (after year 15)	Landscape Effects
Regional Scale Landscape Character										
Regional Scale LCT– 4a: Unwooded Vales West Burton 1 Assessment of tracker panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Regional Scale LCT– 4a: Unwooded Vales West Burton 1 Assessment of fixed panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, With the implementation of, the Site would be able to accommodate change brought about through the development without undue adverse effects. The scale of the planting across the Site would lead to considerable beneficial effects in the increased level of vegetation cover locally, the linking and enhancement of existing natural features and the biodiversity benefits that this will bring, creating a stronger, more resilient framework across the local character area of the 4a Unwooded Vales. The embedded landscape mitigation provides the same level of mitigation and enhancement for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same. .										
Regional Scale LCT–4a: Unwooded Vales West Burton 2 Assessment of tracker panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Regional Scale LCT–4a: Unwooded Vales West Burton 2 Assessment of fixed panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant

		Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Landscape Receptors	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Landscape Effects	Landscape Effects (after construction/ year 1)	Landscape Effects (after year 15)	Landscape Effects
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, With the implementation of, the Site would be able to accommodate change brought about through the development without undue adverse effects. The scale of the planting across the Site would lead to considerable beneficial effects in the increased level of vegetation cover locally, the linking and enhancement of existing natural features and the biodiversity benefits that this will bring, creating a stronger, more resilient framework across the local character area of the 4a Unwooded Vales. The embedded landscape mitigation provides the same level of mitigation and enhancement for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.									
Regional Scale LCT–4a: Unwooded Vales West Burton 3 Assessment of tracker panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Regional Scale LCT–4a: Unwooded Vales West Burton 3 Assessment of fixed panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, With the implementation of mitigation, the Site would be able to accommodate change brought about through the development without undue adverse effects. The scale of the planting across the Site would lead to considerable beneficial effects in the increased level of vegetation cover locally, the linking and enhancement of existing natural features and the biodiversity benefits that this will bring, creating a stronger, more resilient framework across the local character area of the 4a Unwooded Vales. The embedded landscape mitigation provides the same level of mitigation and enhancement for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.									
Local Scale Landscape Character										
Local Scale Landscape Character 2: Trent Valley West Burton 3 Assessment of tracker panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant

			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Landscape Receptors		Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Landscape Effects	Landscape Effects (after construction/ year 1)	Landscape Effects (after year 15)	Landscape Effects
Local Scale Landscape Character 2: Trent Valley West Burton 3 Assessment of fixed panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, With the implementation of mitigation, the Site would be able to accommodate change brought about through the development without undue adverse effects. The scale of the planting across the Site would lead to considerable beneficial effects through the increased level of vegetation cover locally, the linking and enhancement of existing natural features and the associated biodiversity benefits that this will bring. This new planting would create a stronger, more resilient framework across the WLLCA LCA Profile: 2 Trent Valley. The embedded landscape mitigation provides the same level of mitigation and enhancement for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Local Scale Landscape Character 3: The Till Vale West Burton 1 Assessment of tracker panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Local Scale Landscape Character 3: The Till Vale West Burton 1 Assessment of fixed panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, With the implementation of mitigation, the Site would be able to accommodate change brought about through the development without undue adverse effects. The scale of the planting across the Site would lead to considerable beneficial effects in the increased level of vegetation cover locally, the linking and enhancement of existing natural features and the biodiversity benefits that this will bring, creating a stronger, more resilient framework across the local character area of the WLLCA LCA Profile: 3 The Till Vale. The embedded landscape mitigation provides the same level of mitigation and enhancement for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										

			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Landscape Receptors		Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Landscape Effects	Landscape Effects (after construction/ year 1)	Landscape Effects (after year 15)	Landscape Effects
Local Scale Landscape Character 3: The Till Vale West Burton 2 Assessment of tracker panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Local Scale Landscape Character 3: The Till Vale West Burton 2 Assessment of fixed panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, With the implementation of mitigation, the Site would be able to accommodate change brought about through the development without undue adverse effects. The scale of the planting across the Site would lead to considerable beneficial effects in the increased level of vegetation cover locally, the linking and enhancement of existing natural features and the biodiversity benefits that this will bring, creating a stronger, more resilient framework across the local character area of the WLLCA LCA Profile: 3 The Till Vale. The embedded landscape mitigation provides the same level of mitigation and enhancement for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Local Scale Landscape Character 3: The Till Vale West Burton 3 Assessment of tracker panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Local Scale Landscape Character 3: The Till Vale West Burton 3 Assessment of fixed panels	5km Study Area	Medium	Low Short Term	Low Long Term	Low Long Term	Very Low Short Term	Minor Neutral Not Significant	Minor Neutral Not Significant	Minor Beneficial Not Significant	Negligible Neutral Not Significant
	Site		Low Short Term	Low Long Term	Medium Long Term	Very Low Short Term	Minor Adverse Not Significant	Minor Adverse Not Significant	Moderate Beneficial Significant	Negligible Neutral Not Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning,										

		Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Landscape Receptors	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Landscape Effects	Landscape Effects (after construction/ year 1)	Landscape Effects (after year 15)	Landscape Effects
With the implementation of mitigation, the Site would be able to accommodate change brought about through the development without undue adverse effects. The scale of the planting across the Site would lead to considerable beneficial effects in the increased level of vegetation cover locally, the linking and enhancement of existing natural features and the biodiversity benefits that this will bring, creating a stronger, more resilient framework across the local character area of the WLLCA LCA Profile: 3 The Till Vale. The embedded landscape mitigation provides the same level of mitigation and enhancement for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.									

Table D.2: Assessment of Tracker Panels and Fixed Panels on Visual Receptors

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Viewpoint Receptors										
Viewpoint VP01: Brox/198/1 West Burton 1 and 2 [APP-194] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP01: Brox/198/1 West Burton 1 and 2 [APP-194] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP02: Brox/198/1 West Burton 1 and 2 [APP-195] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP02: Brox/198/1 West Burton 1 and 2 [APP-195] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP07: Broxholme Lane West Burton 1	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
[APP-200] Assessment of tracker panels	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP07: Broxholme Lane West Burton 1 [APP-200] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP08: Broxholme Ln and Brox/197/1 West Burton 1 and 2 [APP-201] Assessment of tracker panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Short Term	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant
Viewpoint VP08: Broxholme Ln and Brox/197/1 West Burton 1 and 2 [APP-201] Assessment of fixed panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Short Term	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP09: Brox/196/1	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
West Burton 1 and 2 [APP-202] Assessment of tracker panels	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP09: Brox/196/1 West Burton 1 and 2 [APP-202] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP10: Brox/196/1 West Burton 1 and 2 [APP-203] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP10: Brox/196/1 West Burton 1 and 2 [APP-203] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP18: Sturton Road West Burton 2 [APP-211] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Viewpoint VP18: Sturton Road West Burton 2 [APP-211] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP21: Sturton Road and Saxi/203/1 West Burton 2 [APP-214] Assessment of tracker panels	From VP21 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T009), Significant Effects are likely as users pass immediately alongside the WB2 Site. As this VP is located upon T009, the assessment of effects is representative of the Transport Receptor.									
Viewpoint VP21: Sturton Road and Saxi/203/1 West Burton 2 [APP-214] Assessment of fixed panels	From VP21 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T009), Significant Effects are likely as users pass immediately alongside the WB2 Site. As this VP is located upon T009, the assessment of effects is representative of the Transport Receptor.									
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP23: Sykes Lane West Burton 2 [APP-216] Assessment of tracker panels	From VP23 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T011), Significant Effects are likely as users pass immediately alongside the southern edge of the WB2 Site. As this VP is located upon T011, the assessment of effects is representative of the Transport Receptor.									
Viewpoint VP23: Sykes Lane West Burton 2 [APP-216] Assessment of fixed panels	From VP23 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T011), Significant Effects are likely as users pass immediately alongside the southern edge of the WB2 Site. As this VP is located upon T011, the assessment of effects is representative of the Transport Receptor.									

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP24: Sykes Lane and other route with public access West Burton 2 [APP-217] Assessment of tracker panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Long Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Viewpoint VP24: Sykes Lane and other route with public access West Burton 2 [APP-217] Assessment of fixed panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Long Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP26: Sturton Road West Burton 2 [APP-219] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP26: Sturton Road West Burton 2 [APP-219] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Viewpoint VP27: Sturton Road West Burton 2 [APP-220] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP27: Sturton Road West Burton 2 [APP-220] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP28: Sturton Road West Burton 2 [APP-221] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP28: Sturton Road West Burton 2 [APP-221] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP33: Cowdale Lane West Burton 2 and 3 [APP-226] Assessment of tracker panels	From VP33 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Viewpoint VP33: Cowdale Lane West Burton 2 and 3 [APP-226] Assessment of fixed panels	From VP33 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning. The embedded landscape mitigation provides the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same. .										
Viewpoint VP34: Cowdale Lane West Burton 2 and 3 [APP-227] Assessment of tracker panels	From VP34 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									
Viewpoint VP34: Cowdale Lane West Burton 2 and 3 [APP-227] Assessment of fixed panels	From VP34 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning. The embedded landscape mitigation provides the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same. .										
Viewpoint VP44: Cowdale Lane West Burton 2 and 3 [APP-237] Assessment of tracker panels	From VP44 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									
Viewpoint VP44: Cowdale Lane West Burton 2 and 3 [APP-237] Assessment of fixed panels	From VP44 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning. The embedded landscape mitigation provides the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same. .										
Viewpoint VP45: Cowdale Lane West Burton 2 and 3 [APP-238] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP45: Cowdale Lane West Burton 2 and 3 [APP-238] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP46: Cowdale Lane West Burton 3 [APP-239] Assessment of tracker panels	From VP46 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									
Viewpoint VP46: Cowdale Lane West Burton 3 [APP-239] Assessment of fixed panels	From VP46 location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning. The embedded landscape mitigation provides the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP53: A1500 / Tillbridge Lane West Burton 3	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
[APP-246] Assessment of tracker panels	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP53: A1500 / Tillbridge Lane West Burton 3 [APP-246] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP54: A1500 / Tillbridge Lane West Burton 3 [APP-247] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP54: A1500 / Tillbridge Lane West Burton 3 [APP-247] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP55: A1500 / Tillbridge Lane West Burton 3 [APP-248] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Viewpoint VP55: A1500 / Tillbridge Lane West Burton 3 [APP-248] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Viewpoint VP56: A1500 / Tillbridge Lane West Burton 3 [APP-249] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Viewpoint VP56: A1500 / Tillbridge Lane West Burton 3 [APP-249] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
LCC-C-C Broxholme Lane / Main Street West Burton 1 and 2 [APP-253] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
LCC-C-C Broxholme Lane / Main Street	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
West Burton 1 and 2 [APP-253] Assessment of fixed panels	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
LCC-C-H Cowdale Lane West Burton 2 and 3 [APP-258] Assessment of tracker panels	From VP LCC-H location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									
LCC-C-H Cowdale Lane West Burton 2 and 3 [APP-258] Assessment of fixed panels	From VP LCC-H location there are no direct views of array due to screening and filtering by intervening landform and vegetation. As a result there are no Significant visual effects. However, for road users on this Transport Receptor (T015), Significant Effects are likely as users pass immediately alongside the southern edge of the WB3 Site. As this VP is located upon T015, the assessment of effects is representative of the Transport Receptor.									
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
LCC-C-O Cowdale Lane West Burton 2 and 3 [APP-265] Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
LCC-C-O Cowdale Lane West Burton 2 and 3 [APP-265] Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions are consistent.										
Residential Receptors										
Residential Receptor R022: Ingleby Grange Cottages West Burton 1 and 2 and Cable Corridor (WB1 to WB2, WB2 and WB2 to WB3) Assessment of tracker panels	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Residential Receptor R022: Ingleby Grange Cottages West Burton 1 and 2 and Cable Corridor (WB1 to WB2, WB2 and WB2 to WB3) Assessment of fixed panels	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R023: Cottages on Sturton Road in Ingleby West Burton 1 and 2 and Cable Corridor (WB1 to WB2, WB2 and WB2 to WB3)	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Assessment of tracker panels										
Residential Receptor R023: Cottages on Sturton Road in Ingleby West Burton 1 and 2 and Cable Corridor (WB1 to WB2, WB2 and WB2 to WB3) Assessment of fixed panels	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R024: Castle Farm West Burton 2 and 3 and Cable Corridor (WB2 and WB2 to WB3) Assessment of tracker panels	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Residential Receptor R024: Castle Farm West Burton 2 and 3 and Cable Corridor (WB2 and WB2 to WB3) Assessment of fixed panels	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Residential Receptor R046: Bluebell Cottage and April Cottage on Broxholme Lane West Burton 1 and 2 and Cable Corridor (WB1 to WB2 and WB2) Assessment of tracker panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Residential Receptor R046: Bluebell Cottage and April Cottage on Broxholme Lane West Burton 1 and 2 and Cable Corridor (WB1 to WB2 and WB2) Assessment of fixed panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R050: Poplar Farm West Burton 3 and Cable Corridor (WB3 to WB PS) Assessment of tracker panels	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Residential Receptor R050: Poplar Farm	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
West Burton 3 and Cable Corridor (WB3 to WB PS) Assessment of fixed panels	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R051: Marton Grange West Burton 3 and Cable Corridor (WB2 to WB3 and WB3 to WB PS) Assessment of tracker panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Residential Receptor R051: Marton Grange West Burton 3 and Cable Corridor (WB2 to WB3 and WB3 to WB PS) Assessment of fixed panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R056: South View and Meadow View West Burton 3 and Cable Corridor (WB3 to WB PS)	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Assessment of tracker panels										
Residential Receptor R056: South View and Meadow View West Burton 3 and Cable Corridor (WB3 to WB PS) Assessment of fixed panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R068: White House and Greenfields Farm West Burton 3 and Cable Corridor (WB2 to WB3) Assessment of tracker panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Residential Receptor R068: White House and Greenfields Farm West Burton 3 and Cable Corridor (WB2 to WB3) Assessment of fixed panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Residential Receptor R069: Manor Farm West Burton 3 and Cable Corridor (WB2 to WB3 and WB3 to WB PS) Assessment of tracker panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Residential Receptor R069: Manor Farm West Burton 3 and Cable Corridor (WB2 to WB3 and WB3 to WB PS) Assessment of fixed panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R074: Residents in Stow Park West Burton 3 and Cable Corridor (WB2 to WB3) Assessment of tracker panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Minor-Moderate Adverse Not Significant	Minor-Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant
Residential Receptor R074: Residents in Stow Park West Burton 3 and Cable Corridor (WB2 to WB3)	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Minor-Moderate Adverse Not Significant	Minor-Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant	Moderate-Major Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Assessment of fixed panels										
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R085: Plumpton Farm West Burton 3 and Cable Corridor (WB2 to WB3) Assessment of tracker panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Residential Receptor R085: Plumpton Farm West Burton 3 and Cable Corridor (WB2 to WB3) Assessment of fixed panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R098: Greenfields Farm West Burton 3 Assessment of tracker panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Residential Receptor R098: Greenfields Farm West Burton 3 Assessment of fixed panels	With mitigation	High	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Residential Receptor R100: Moat Farm Bungalow West Burton 3 Assessment of tracker panels	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Residential Receptor R100: Moat Farm Bungalow West Burton 3 Assessment of fixed panels	With mitigation	High	High Short Term	High Long Term	Low Long Term	Low Short Term	Major Adverse Significant	Major Adverse Significant	Minor – Moderate Adverse Not Significant	Minor – Moderate Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant	Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Transport Receptors										
Transport Receptor T001: Main Street, Broxholme Ln – Road that runs through WB1 West Burton 1 and 2 and Cable Corridor (WB1 to WB2 and WB2). Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Transport Receptor T001: Main Street, Broxholme Ln – Road that runs through WB1	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
West Burton 1 and 2 and Cable Corridor (WB1 to WB2 and WB2). Assessment of fixed panels										
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Transport Receptor T009: B1241 Sturton Road West Burton 1 and 2 and Cable Corridor (WB1 to WB2). Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Transport Receptor T009: B1241 Sturton Road West Burton 1 and 2 and Cable Corridor (WB1 to WB2). Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Medium Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Transport Receptor T010: Track off Sykes Lane West Burton 2 and Cable Corridor (WB2 to WB3).	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Long Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Assessment of tracker panels										
Transport Receptor T010: Track off Sykes Lane West Burton 2 and Cable Corridor (WB2 to WB3). Assessment of fixed panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Long Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Transport Receptor T011: Sykes Lane West Burton 2 and 3 and Cable Corridor (WB2 to WB3). Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Transport Receptor T011: Sykes Lane West Burton 2 and 3 and Cable Corridor (WB2 to WB3). Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Transport Receptor T015:	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Cowdale Lane - western section near Torksey West Burton 1, 2 and 3 and Cable Corridor (WB1 to WB2 and WB2 to WB3). Assessment of tracker panels	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Transport Receptor T015: Cowdale Lane - western section near Torksey West Burton 1, 2 and 3 and Cable Corridor (WB1 to WB2 and WB2 to WB3). Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Transport Receptor T027: Stow Park Road/ Tillbridge Lane West Burton 3 and Cable Corridor (WB2 to WB3 and WB3 to WB3 PS). Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Transport Receptor T027:	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant

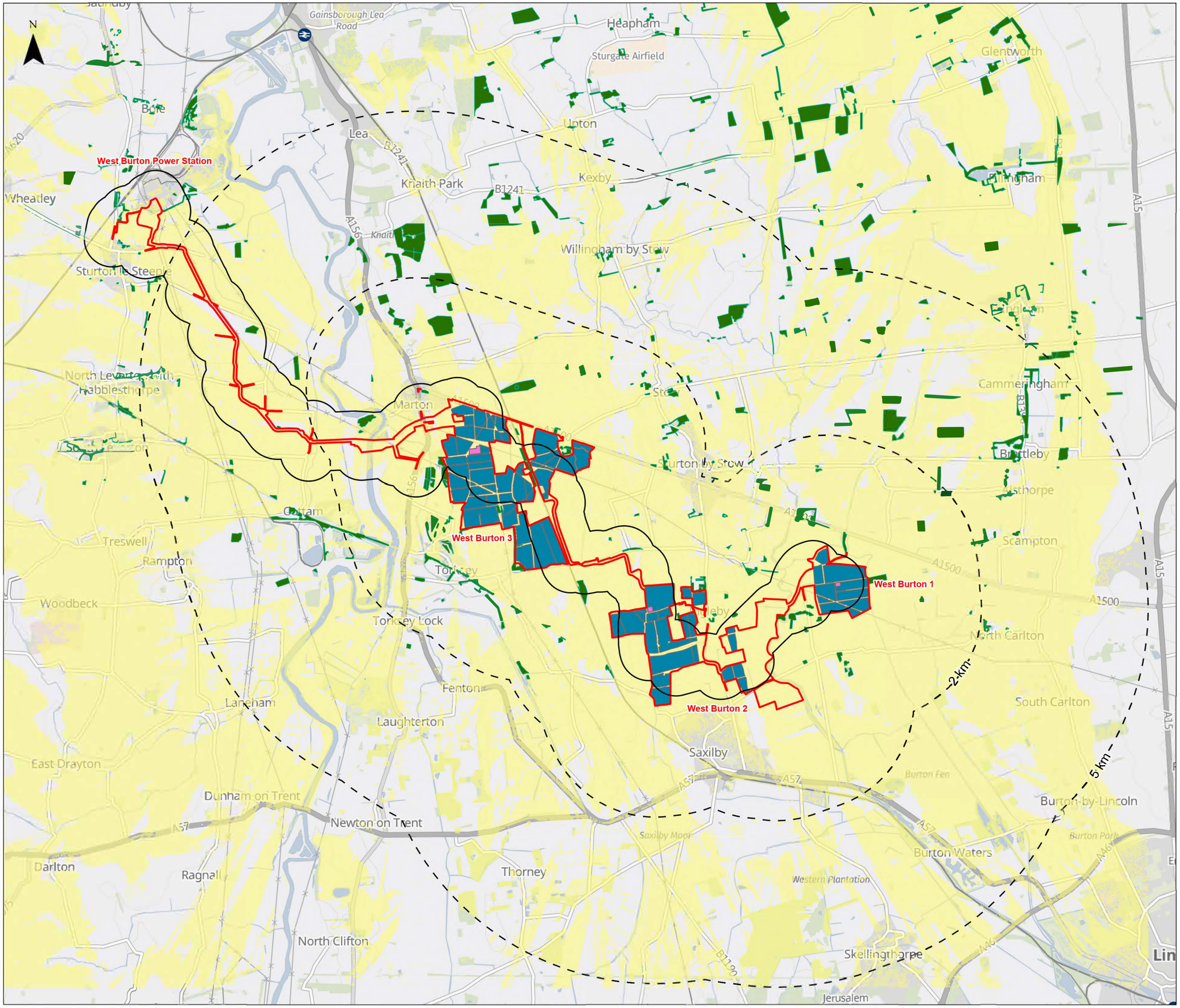
			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Stow Park Road/ Tillbridge Lane West Burton 3 and Cable Corridor (WB2 to WB3 and WB3 to WB3 PS). Assessment of fixed panels	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
Transport Receptor T053: Stow Park Road (Small Lane to the south of A1500) West Burton 3 and West Burton 2 and 3 and Cable Corridor (WB2 to WB3 and WB3 to WB PS). Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Transport Receptor T053: Stow Park Road (Small Lane to the south of A1500) West Burton 3 and West Burton 2 and 3 and Cable Corridor (WB2 to WB3 and WB3 to WB PS). Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
PRoW Receptors										
PRoW Receptor PR006: Brox/198/1 West Burton 1 and 2 and Cable Corridor (WB1 to WB2 and WB2) Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
PRoW Receptor PR006: Brox/198/1 West Burton 1 and 2 and Cable Corridor (WB1 to WB2 and WB2) Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Very Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Negligible Neutral Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
PRoW Receptor PR007: Brox/197/1 West Burton 1 and 2 and Cable Corridor (WB1 to WB2 and WB2) Assessment of tracker panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
PRoW Receptor PR007: Brox/197/1 West Burton 1 and 2 and Cable Corridor (WB1 to WB2 and WB2) Assessment of fixed panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
PRoW Receptor PR008: Brox/196/1 West Burton 1 and 2 and Cable Corridor (WB1 to WB2) Assessment of tracker panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
PRoW Receptor PR008: Brox/196/1 West Burton 1 and 2 and Cable Corridor (WB1 to WB2) Assessment of fixed panels	With mitigation	Medium	Medium Short Term	Medium Long Term	Low Long Term	Low Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant	Minor Adverse Not Significant
	With only embedded mitigation		Medium Short Term	Medium Long Term	Medium Long Term	Medium Short Term	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant	Moderate Adverse Significant
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										
PRoW Receptor PR038: Mton/68/1 West Burton 3 and Cable Corridor (WB3 to WB PS) Assessment of tracker panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant
PRoW Receptor PR038: Mton/68/1 West Burton 3 and Cable Corridor (WB3 to WB PS) Assessment of fixed panels	With mitigation	Medium	High Short Term	High Long Term	Medium Long Term	Low Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate Adverse Significant	Minor Adverse Not Significant
	With only embedded mitigation		High Short Term	High Long Term	High Long Term	High Short Term	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant	Moderate – Major Adverse Significant

			Magnitude of Change				Significance of Effect			
			Construction	Operational		Decommissioning	Construction	Operational		Decommissioning
Visual Receptors	With mitigation / with only embedded mitigation	Sensitivity	Magnitude	Magnitude (Year 1)	Magnitude (Year 15)	Magnitude	Visual Effects	Visual Effects (after construction/ year 1). With 'primary' and 'secondary' mitigation.	Visual Effects (after Year 15). With 'primary' and 'secondary' mitigation.	Visual Effects. With 'primary' and 'secondary' mitigation.
Rationale/Conclusions/Discussion: The reassessment of the scheme with Fixed Panels (instead of Trackers) does not alter the findings of the assessment. At the four assessment points; Construction, Operation (Year 1), Operation (Year 15) and Decommissioning, the proximity of this location to the infrastructure results in the embedded landscape mitigation providing the same level of mitigation for the Fixed Panels as it would for the Tracker Panels, and therefore the conclusions of effect significance are the same.										

Appendix E - Augmented Zones of Theoretical Visibilty to support the comparative assessment of effects of types of panels



Island GREEN POWER

Lanpro

Key

- Order Limits
- Study Area
- 500m Cable Corridor Study Area
- Woodland
- Solar panel area
- Substation area

Augmented Zone of Theoretical Visability (ZTV)

- Fixed solar panels theoretically visible

Note:

1. The augmented Zone of Theoretical Visibility (ZTV) was produced using a combination of the Environment Agency's Composite 2m DSM (2020) LiDAR Data (which includes screening features such as buildings) as well as tree and hedgerow data. The resulting ZTV demonstrates where the development may be visible from, when considering existing screening elements such as buildings from the DSM, as well as trees (modelled at 12m high) and hedgerows (modelled at 2m high).

2. This ZTV was produced with the assumption that proposed solar panels would fill the full extent of the allocated parameters boundary which considers a variety of offsets and buffers from existing landscape features such as trees, hedgerows and ditches. The ZTV assumes a maximum panel height of 3.5m.

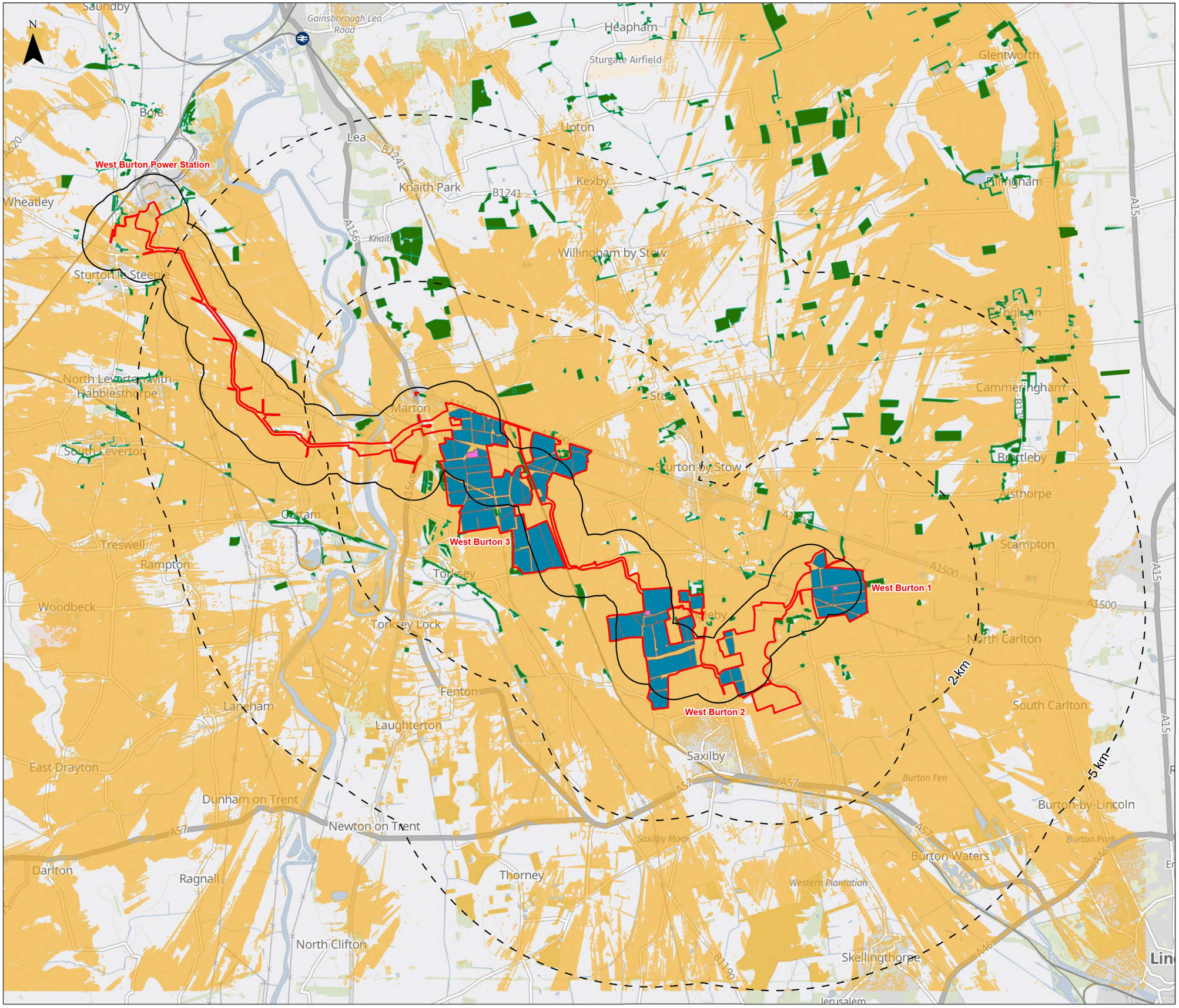
0 1 2 3 4 km

Scale: 1:65,000@ A3

Ref: P2983_LPR_ZZ_ON_DR_Z_0281	
Drawn by: BH	Checked by: MT

West Burton 1, 2 and 3
Augmented ZTV - Fixed Solar Panels

WEST BURTON SOLAR PROJECT
Landscape and Visual Impact Assessment
Environmental Statement (ES)



Island GREEN POWER

Lanpro

Key

- Order Limits
- Study Area
- 500m Cable Corridor Study Area
- Woodland
- Solar panel area
- Substation area

Augmented Zone of Theoretical Visability (ZTV)

- Tracker solar panels theoretically visible

Note:

1. The augmented Zone of Theoretical Visibility (ZTV) was produced using a combination of the Environment Agency's Composite 2m DSM (2020) LiDAR Data (which includes screening features such as buildings) as well as tree and hedgerow data. The resulting ZTV demonstrates where the development may be visible from, when considering existing screening elements such as buildings from the DSM, as well as trees (modelled at 12m high) and hedgerows (modelled at 2m high).

2. This ZTV was produced with the assumption that proposed solar panels would fill the full extent of the allocated parameters boundary which considers a variety of offsets and buffers from existing landscape features such as trees, hedgerows and ditches. The ZTV assumes a maximum panel height of 4.5m.

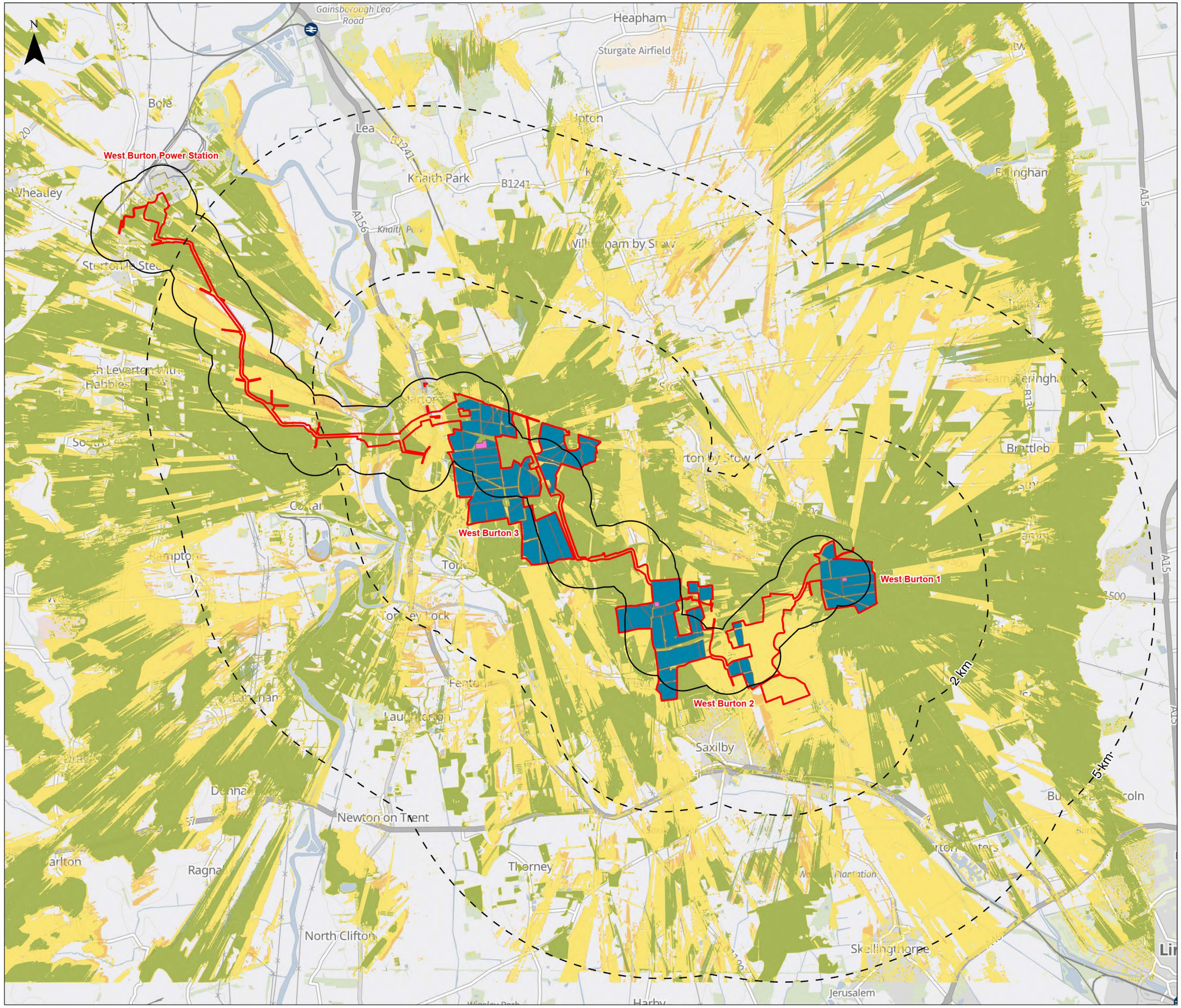
0 1 2 3 4 km

Scale: 1:65,000@ A3

Ref: P2983_LPR_ZZ_ON_DR_Z_0280	
Drawn by: BH	Checked by: MT

West Burton 1, 2 and 3
Augmented ZTV - Tracker Solar Panels

WEST BURTON SOLAR PROJECT
Landscape and Visual Impact Assessment
Environmental Statement (ES)



Island GREEN POWER Lanpro

Key

- Order Limits
- Study Area
- 500m Cable Corridor Study Area
- Solar panel area
- Substation area

Augmented Zone of Theoretical Visability (ZTV)

- Substation theoretically visible
- Fixed solar panels theoretically visible
- Tracker solar panels theoretically visible

Note:

1. The augmented Zone of Theoretical Visibility (ZTV) was produced using a combination of the Environment Agency's Composite 2m DSM (2020) LiDAR Data (which includes screening features such as buildings) as well as tree and hedgerow data. The resulting ZTV demonstrates where the development may be visible from, when considering existing screening elements such as buildings from the DSM, as well as trees (modelled at 12m high) and hedgerows (modelled at 2m high).

2. This ZTV was produced with the assumption that proposed solar panels would fill the full extent of the allocated parameters boundary which considers a variety of offsets and buffers from existing landscape features such as trees, hedgerows and ditches. The ZTV assumes a maximum fixed panel height of 3.5m, a maximum tracker panel height of 4.5m and a substation height of 6.5m at West Burton 1 and 2 and 13.2m at West Burton 3.

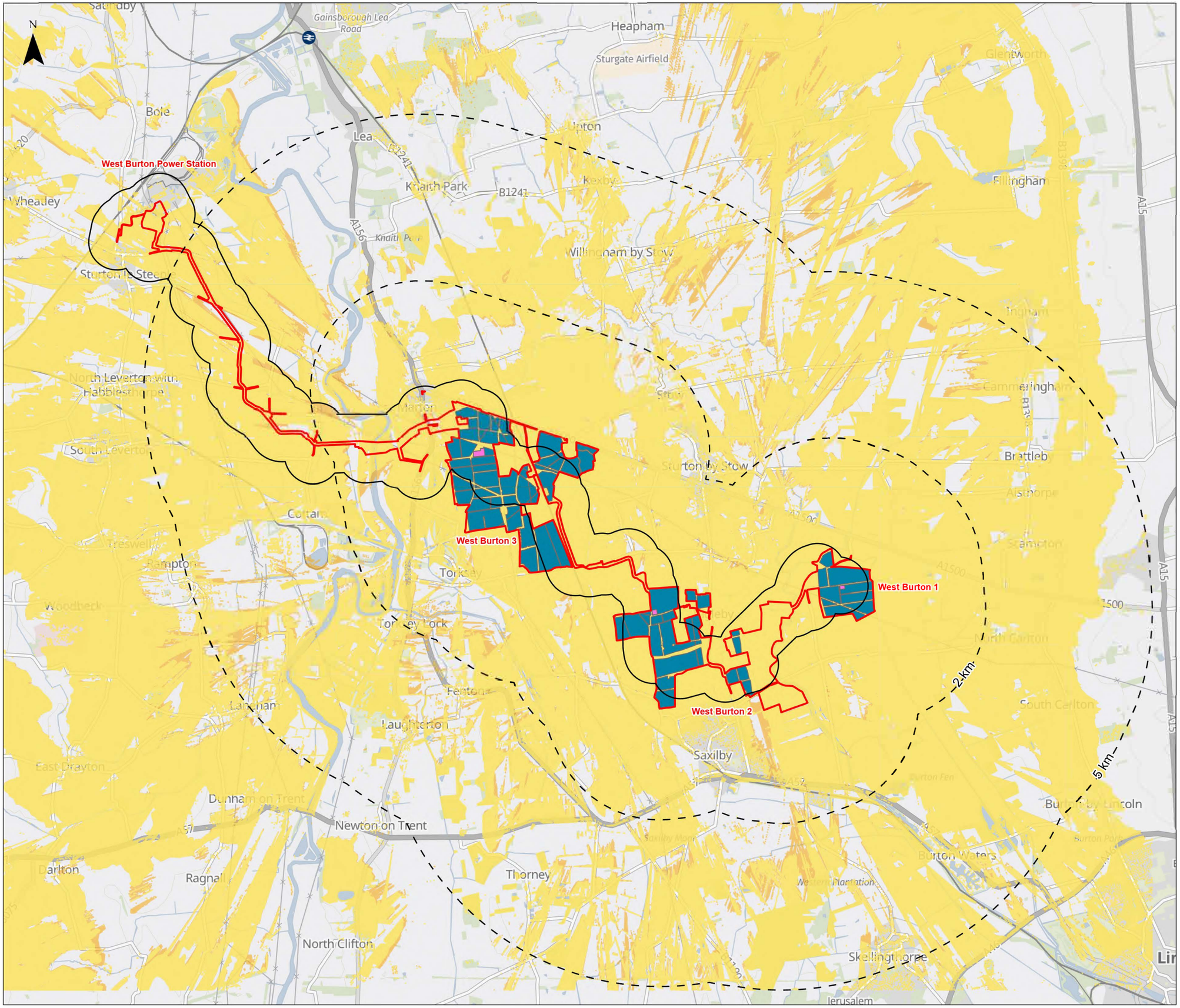
0 1 2 3 4 km

Scale: 1:65,000@ A3

Ref: P2983_LPR_ZZ_ON_DR_Z_0279	
Drawn by: BH	Checked by: MT

West Burton 1, 2 and 3
Augmented ZTV - Fixed and Tracker Solar Panels

WEST BURTON SOLAR PROJECT
Landscape and Visual Impact Assessment
Environmental Statement (ES)



Island GREEN POWER

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Key

- Order Limits
- Study Area
- 500m Cable Corridor Study Area
- Solar panel area
- Substation area

Augmented Zone of Theoretical Visability (ZTV)

- Fixed solar panels theoretically visible
- Tracker solar panels theoretically visible

Note:

1. The augmented Zone of Theoretical Visibility (ZTV) was produced using a combination of the Environment Agency's Composite 2m DSM (2020) LiDAR Data (which includes screening features such as buildings) as well as tree and hedgerow data. The resulting ZTV demonstrates where the development may be visible from, when considering existing screening elements such as buildings from the DSM, as well as trees (modelled at 12m high) and hedgerows (modelled at 2m high).

2. This ZTV was produced with the assumption that proposed solar panels would fill the full extent of the allocated parameters boundary which considers a variety of offsets and buffers from existing landscape features such as trees, hedgerows and ditches. The ZTV assumes a maximum fixed panel height of 3.5m, a maximum tracker panel height of 4.5m.

0 1 2 3 4 km

Scale: 1:65,000@ A3

Ref: P2983_LPR_ZZ_ON_DR_Z_0291	
Drawn by: BH	Checked by: MT

West Burton 1, 2 and 3
Augmented ZTV - Fixed and Tracker Solar Panels

WEST BURTON SOLAR PROJECT
Landscape and Visual Impact Assessment
Environmental Statement (ES)