

Gate Burton Energy Park EN010131

Technical Note: Additional Cumulative Schemes Document Reference: EN010131/APP/8.23

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Gate Burton Energy Park Limited



| Prepared for: | |
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| Gate Burton Energy Park Limited | |
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1. Introduction

1.1.1 This Technical Note should be read alongside the Response to Second Written Questions document submitted at Deadline 4. It has been prepared in response to the Examining Authority's (ExA) second written question ExQ2.1.7 which states the following (our emphasis):

"Cumulative assessment Environmental Statement

At deadlines 2 and 3, West Lindsey and Bassetlaw Councils identify additional cumulative schemes that have not been included in the cumulative assessment. It is also unclear from the ES cumulative assessments, see above, what the short list of developments are that have been assessed and whether these have been agreed with the local authorities. An overall short list is provided at Appendix 16 A, however it is not clear what the short list of developments are for each of the relevant cumulative assessments and why the list is appropriate for that particular assessment, please explain and clarify. Where additional schemes require assessment, including those referenced by the Host Authorities, the relevant cumulative assessment and summary of significant effects in ES Chapter 16 – assessment of cumulative effects and interactions, should be updated to reflect this."

1.1.2 The request to consider additional schemes was received from West Lindsey District Council (WLDC) and Bassetlaw District Council (BDC) within their Responses to ExA First Written Questions that were submitted at Deadline 2 (8 August). The comments state the following:

REP2-057 (WLDC) (our emphasis)

"Re: do LPAs agree with the developments identified in the Cumulative Assessment in each chapter of the ES.

1.1.3 Stow Park Solar Farm submitted an EIA Screening request in June 2023 and has subsequently been determined by WLDC as EIA development. Stow Park is situated approximately 1800m from Gate Burton and therefore construction traffic is likely to share the same haul routes. Therefore WLDC feel this should be included within the cumulative effects assessment.

REP2-047 (Bassetlaw DC)

"Re: do LPAs agree with the developments identified in the Cumulative Assessment in each chapter of the ES.

Other applications that may be applicable in that they relate to energy developments are:

23/00656/FUL-Development Site To The North Of Brick Yard Road Gamston Installation of a Solar Farm with an Output of Approximately 45.4MW and Ancillary Works Pending consideration

22/01713/FUL - Gainsborough Road, Bole Construction and Operation of a Battery Energy Storage System with an Electrical Output Capacity of up to 500MW and Associated Development Including Power Inverter Systems, Electrical Banking Station, Electrical Cabling including Below Ground Cabling to 400KV Switchyard, Welfare Facilities, Internal Access Roads, Site Security Infrastructure, Lighting, Boundary Treatments, and Landscaping. Pending consideration



22/00707/FUL Former High Marnham Power Station The Construction and Operation of a Solar Photovoltaic(PV) Farm with other Associated Infrastructure Including Sub Stations, Security Cameras, Fencing, Storage Containers, Access Tracks and Landscaping Grant - 05.01.2023

22/00358/FUL - Gainsborough Road, Saundby Installation of a Solar Farm and Battery Storage Facility with Associated Infrastructure. Grant - 14.07.2022

21/01552/VOC - Sturton Le Steeple Variation of Condition 2 on P. A. 20/00117/FUL - Extend the Temporary Period of Permission to 40 Years from When the Site Becomes Operational. Grant - 22.02.2022

21/01147/FUL- Tuxford Road, Skegby Installation of a Solar Farm and Battery Storage Facility with Associated Infrastructure Grant - 16.12.2021

There is also another strategic energy project which is connecting to High Marnham - North Humber to High Marnham | National Grid ET

There may be a capacity issue in terms of connecting to the existing power stations."

1.1.4 The purpose of this document is to review and assess the additional schemes that have been referenced by West Lindsey and Bassetlaw District Council subsequent to the submission of the DCO Application, and a solar NSIP scheme as discussed with Lincolnshire County Council.

2. Methodology

- 2.1.1 The additional schemes listed in Table 1 have been assessed in line with the methodology outlined in Chapter 5: EIA Methodology [APP-014] and Chapter 16: Cumulative Effects and Interactions [APP-025] within the ES. The locations of the schemes in relation to the Gate Burton Energy Park are shown in Appendix A of this Technical Note. A summary of the assessment is provided within Table 2.
- 2.1.2 Chapter 16: Cumulative Effects and Interactions [APP-025] describes the assessment methodology in Section 16.4, which is based on PINS advice note 17, and outlines the study area for each environmental topic. Chapter 5: EIA Methodology [APP-014] includes a detailed description of the methodology for the cumulative and interaction assessment in section 5.8. In particular, section 5.8.10 includes a list of the criteria used to create the short-list of schemes which is the basis of the cumulative assessment in Chapter 16.
- 2.1.3 It is noted that two schemes identified by Bassetlaw and West Lindsey District Council were previously identified in the short list of schemes provided as part of the Environmental Statement (see Appendix 16-A [APP-181/3.3]).
- 2.1.4 These schemes are:
 - 22/00358/FUL Gainsborough Road, Saundby Installation of a Solar Farm and Battery Storage Facility with Associated Infrastructure. Grant -14.07.2022.



- 21/01552/VOC Sturton Le Steeple Variation of Condition 2 on P. A. Also under application 20/00117/FUL - Extend the Temporary Period of Permission to 40 Years from When the Site Becomes Operational. Grant -22.02.2022
- 2.1.5 Application 22/00358/FUL was included within Appendix 16-A [APP-181/3.3] under application 21/01550/SCR, and no significant cumulative effects were identified with this scheme.
- 2.1.6 Application 21/01552/VOC was also included within Appendix 16-A [APP-181/3.3] under application 20/00117/FUL. This Variation of Condition (VOC) was applied to 'extend the temporary period of permission to 40 years from when the site becomes operational' and was granted. This does not change the conclusions of the cumulative assessment as presented within Chapter 16: Cumulative Effects and Interactions [APP-025].
- 2.1.7 Four of the schemes identified by Bassetlaw and West Lindsey District Council were made public after preparation and/or submission of the Environmental Statement. These schemes include:
 - 146938 Construction and operation of a proposed ground mounted solar PV farm – submission date: 20.06.2023
 - 23/00656/FUL- Development Site to The North Of Brick Yard Road Gamston Installation of a Solar Farm with an Output of Approximately 45.4MW and Ancillary Works Pending consideration – submission date: 23.05.2023
 - 22/01713/FUL Gainsborough Road, Bole Construction and Operation of a Battery Energy Storage System with an Electrical Output Capacity of up to 500MW and Associated Development Including Power Inverter Systems, Electrical Banking Station, Electrical Cabling including Below Ground Cabling to 400KV Switchyard, Welfare Facilities, Internal Access Roads, Site Security Infrastructure, Lighting, Boundary Treatments, and Landscaping – submission date: 23.12.2022
 - The Great Grid Upgrade Strategic energy project which is connecting to High Marnham - North Humber to High Marnham | National Grid ET – announced June 2023
- 2.1.8 Three of the applications identified by Bassetlaw and West Lindsey District Council are located outside of the 5km study area used within the cumulative assessment. These schemes are:
 - 22/00707/FUL Former High Marnham Power Station The Construction and Operation of a Solar Photovoltaic(PV) Farm with other Associated Infrastructure Including Sub Stations, Security Cameras, Fencing, Storage Containers, Access Tracks and Landscaping Grant – submission date: 05.01.2023
 - 21/01147/FUL- Tuxford Road, Skegby Installation of a Solar Farm and Battery Storage Facility with Associated Infrastructure Grant – submission date: 16.12.2021



- 23/00656/FUL- Development Site To The North Of Brick Yard Road Gamston Installation of a Solar Farm with an Output of Approximately 45.4MW and Ancillary Works

 – submission date: 23.05.2023
- 2.1.9 One Earth Solar Farm is not within in the 5km study area for the Gate Burton project but has been included in this assessment following recent discissions with Lincolnshire County Council.



Table 1 Cumulative Schemes

| Table 1 Cum | ulative Schemes | | | | | | | | | | | |
|-------------|--|--|--|---|----------------------------------|---|--|--|------------------------|--|---------|----------|
| Scheme ID | Name | Site as described in application | Location description | Development Summary | LPA | Status Summary | Reason for inclusion | Ref permission / application | Date (decision issues) | Description (in application) | Easting | Northing |
| 1 | Stow Park Solar Farm | Stow Park Farm, Stow Park, Lincoln, LN1 2AN | Approximately 2km south of Solar and Energy Storage Park and 1.7km south east of Grid Connection Corridor | Request for a screening opinion for proposed solar farm development | West Lindsey District Council | EIA Required | Solar development, requested for inclusion by West Lindsey District Council | 146938 | 25/07/2023 | Construction and operation of a proposed ground mounted solar PV farm. The proposed development would comprise the construction and operation of a circa 35MW solar array and its associated infrastructure on an application site of approximately 87-hectares. | 486699 | 379889 |
| 2 | Development Site to the North of Brick Yard Road | Development Site To The North Of Brick Yard Road Gamston Nottinghamshire | Approximately 11km south west of Solar and Energy Storage Park | Solar Farm with | | Awaiting Decision | Solar development, requested for inclusion by Bassetlaw District Council. | 23/00656/FUL | Awaiting decision | Installation of a Solar Farm with an Output of Approximately 45.4MW and Ancillary Works | 469150 | 377150 |
| 3 | Gainsborough Road, Bole Construction and Operation of a Battery Energy Storage System | Land East Of Gainsborough Road Bole Nottinghamshire | Approximately 3km north west of Solar and Energy Storage Park | Construction and Operation of a Battery Energy Storage System with an electrical output capacity of up to 500MW and associated Development. | | Awaiting decision | BESS development, requested for inclusion by Bassetlaw District Council. | 22/01713/FUL | Awaiting decision | Construction and Operation of a Battery Energy Storage System with an Electrical Output Capacity of up to 500MW and Associated Development Including Power Inverter Systems, Electrical Banking Station, Electrical Cabling including Below Ground Cabling to 400KV Switchyard, Welfare Facilities, Internal Access Roads, Site Security Infrastructure, Lighting, Boundary Treatments, and Landscaping. | 480290 | 386209 |
| 4 | Former High Marham Power Station Solar Photovoltaic Farm | Land Adjoining Former High Marnham Power Station High Marnham Nottinghamshire | Approximately 12km south west of Solar and Energy Storage Park and 7.6km south west of Grid Connection Corridor. | The Construction and Operation of a Solar Photovoltaic(PV) Farm with other Associated Infrastructure | Bassetlaw District Council | Granted (TCPA) | Solar development, requested for inclusion by Bassetlaw District Council. | 22/00707/FUL | 05/01/2023 | The Construction and Operation of a Solar Photovoltaic (PV) Farm with other Associated Infrastructure Including Sub Stations, Security Cameras, Fencing, Storage Containers, Access Tracks and Landscaping | 480086 | 370688 |
| 5 | Land North And South Tuxford Road | Land North And South Tuxford Road Skegby Tuxford Nottinghamshire | Approximately 14.5km south west of the Solar and Energy Storage Park | Installation of a Solar Farm and Battery Storage Facility with Associated Infrastructure | Bassetlaw District Council | Granted (TCPA) | Solar development, requested for inclusion by Bassetlaw District Council. | 21/01147/FUL | 16/12/2021 | Installation of a Solar Farm and Battery Storage Facility with Associated Infrastructure | 476219 | 369759 |
| 6 | North Humber to High Marnham National Grid – The Great Grid Upgrade | North of Hull at Creyke Beck in the East Riding of Yorkshire and a new substation at | location | New high voltage electricity transmission line and associated works between | Bassetlaw District Council | Awaiting decision – NSIP (scoping submitted) | Energy development, requested for inclusion by Bassetlaw District Council. | Not submitted – expected to be submitted to PINS in Q2 2026 | Not yet submitted | New high voltage electricity transmission line and associated works between a new substation north of Hull at Creyke Beck in the East Riding of Yorkshire | N/A | N/A |

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| Scheme ID | Name | Site as described in application | Location description | Development Summary | LPA | Status Summary | Reason for inclusion | Ref permission / application | Date (decision issues) | Description (in application) | Easting | Northing |
|-----------|----------------------|--|---|--|--|-------------------------------|----------------------|--|------------------------|---|---------|----------|
| | | High Marnham in Nottinghamshire | <u> </u> | a new substation north of Hull at Creyke Beck in the East Riding of Yorkshire and a new substation at High Marnham in Nottinghamshire | | | | | | and a new substation at High Marnham in Nottinghamshire | | |
| 7 | One Earth Solar Farm | Land surrounding the River Trent, north of South Clifton, east of Skegby, west of Thorney | Approximately 9km south of the Solar and Energy Storage Park and 4.8km south of the Grid Connection Corridor. | The project comprises the construction of a Solar Farm and collated Battery Energy Storage System (BESS) that would allow for the generation, export and storage of electricity exceeding 50 MW. | Nottinghamshire and Lincolnshire County Councils | Non-Statutory Consultation | Solar NSIP | Not submitted – expected to be submitted to PINS in 2025 | Not yet submitted | The project comprises the construction of a Solar Farm and collated Battery Energy Storage System (BESS) that would allow for the generation, export and storage of electricity exceeding 50 MW. The project includes works to facilitate the construction, operation, maintenance and decommissioning of a solar photovoltaic (PV) array electricity generating facility and BESS including PV modules and mounting structures, on-site supporting equipment including inverters, transformers and switchgears, on-site substations and underground cabling to connect to the National Grid substation, associated infrastructure including fencing, drainage and storage containers and biodiversity and landscaping enhancement measures, together with temporary development during the construction phase. | 482357 | 372796 |

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3. Assessment of Cumulative Schemes

- 3.1.1 An assessment of the identified cumulative schemes is set out within Table 2.
- 3.1.2 The assessment confirms that the schemes do not introduce any new significant cumulative effects in combination with Gate Burton Energy Park and the conclusions of the ES for the Scheme remain unchanged.



Table 2 Cumulative Assessment for Additional Schemes

Potential Impact Potential for Cumulative Effects Relevant Cumulative Cumulative Effect Schemes

- **6. Climate Change** consideration of cumulative effects have been scoped out on the basis that the assessments included within the ES chapter (GHG emissions and ICCI) are inherently cumulative assessments due to the global nature of climate. Therefore, there are no new cumulative effects in relation to the additional schemes.
- 7. Cultural Heritage due to the distance of the Schemes from the Gate Burton scheme, the combined impact of these projects, either individually or together in combination would not result in cumulative effects. Therefore, no significant cumulative effects are identified during construction, operation or decommissioning phases.
- **8. Ecology and Nature Conservation –** the Schemes in Table 1 have been reviewed. The combined impact of these projects, either individually or together in combination would not result in additional cumulative effects during the construction, operational or decommissioning phases. The creation of new habitat and embedded mitigation within the Gate Burton project ensures that impacts and effects on ecological receptors are avoided or minimised. Whilst details of the ecological receptors and mitigation measures for the Schemes outlined in Table 1 are not fully defined for each project (dependent on the status of the application) it is anticipated that the Schemes identified in Table 1 will follow good design principles to minimise and avoid significant effects on ecological receptors and therefore avoid spatial and temporal interaction with the Scheme.
- **9. Water Environment** as a result of the distance between the Schemes and Gate Burton Energy Park, no additional cumulative effects resulting from the schemes listed in Table 1 are anticipated on the water environment during the construction, operation or decommissioning phases.

10. Landscape and Visual Amenity

Effects on landscape character and visual amenity / receptors

The Schemes in Table 1 have been reviewed in terms of likely additional landscape and visual effects. There will be no intervisibility between the schemes listed in Table 1 and Gate Burton Energy Park due to the distance of the schemes, intervening topography, built structures and vegetation. Cumulative landscape and visual effects resulting from simultaneous construction as well as during operation, including within the Grid Connection Corridor, will not be significant for Schemes 2 to 7.

Scheme 1 is located within LLCA 08 – Stow Plain. There will be locations where construction traffic for

All Schemes listed in Table 1.

No significant cumulative effects: No significant cumulative effects are anticipated during construction, operation, or decommissioning.



Potential for Cumulative Effects

Relevant Cumulative Schemes

Cumulative Effect

Scheme 1 and Gate Burton Energy Park (including Grid Connection) will travel if occurring simultaneously. In addition to the direct influence of construction on the LLCA, involving localised vegetation loss/soil stripping (for example to construct the grid connection) there will be an increased perception of vehicle/machinery and activity adversely impacting on the landscape character in the rural context. However, the distance between Scheme 1 and Gate Burton Energy Park, is such that there will be no intervisibility and a localised geographical extent of indirect effects in construction on landscape character. Direct effects in the same LLCA from both schemes will occur as a short section of the Gate Burton Energy Park grid connection corridor is located within this LLCA. Additional cumulative effects will be of low adverse magnitude. The significance of cumulative landscape effects at construction will be minor and temporary.

During operation, and due to the distance of the Schemes, intervening topography, built structures and vegetation, cumulative effects between Scheme 1 and Gate Burton Energy Park will be neutral and not significant.

11. Noise and Vibration – the nearest of the additional cumulative developments is approximately 1.7km from the Order Limits. At this distance, no cumulative noise or vibration effects are anticipated. Consequently, as a result of the distance between the schemes and Gate Burton Energy Park, no additional cumulative effects resulting from the schemes listed in Table 1 are anticipated during the construction, operation or decommissioning phases.

12. Socio-Economics and Land-Use

land use receptors

Effects on socio-economics and The schemes in Table 1 have been reviewed in terms of likely additional socio-economics and land use effects. In respect of economic effects, the schemes would provide beneficial effects in respect of employment and generation of gross value added.

All Schemes listed in Table 1.

No significant cumulative effects: No significant cumulative effects are anticipated during construction, operation, or decommissioning.



Potential for Cumulative Effects

Relevant Cumulative Schemes

Cumulative Effect

These would not be sufficient to change the overall conclusion of minor beneficial cumulative effect during construction and decommissioning. In regard to effects on temporary accommodation, the additional schemes could have an effect on the bedspaces available during construction and decommissioning. However, each scheme will have its own catchment area for accommodation and on this basis, impacts would not be sufficient to change the overall cumulative effect of no effect.

The overall cumulative effect on usage of PRoW has the potential to be greater due to cumulative schemes. However due to the distance of these schemes from the Gate Burton Order Limits, none of the PRoW affected by these schemes would likely be affected by effects arising at Gate Burton so there would be no change the conclusion of minor adverse during construction and decommissioning. The schemes could have a greater impact on agricultural land in terms of BMV land lost during construction, operation, and decommissioning. For the seven additional schemes, there would likely be a very small portion of BMV land lost and the cumulative effect would remain unchanged as minor adverse.

In addition, no plans or projects identified in ES Volume 3: Appendix 16-A [EN010131/APP/3.3] are considered in combination to impact important residential properties, business premises and community facilities features identified in the socio-economics and land use assessment. Additional schemes are not likely to contribute to the effects on this receptor either and so the cumulative effect will likely remain the same.

13. Transport and Access

Increased traffic flows

The four <50MW solar farm schemes (Schemes 1, 2, All Schemes listed in Table 1. 4 and 5) are not expected to result in a material uplift in vehicle trips during their construction phases,

No significant cumulative effects: No cumulative effects are anticipated during construction, operation, or



Potential for Cumulative Effects

Relevant Cumulative Schemes

Cumulative Effect

decommissioning as a result of the schemes identified.

typically expected to be up to 16 HGVs per day over a short construction period of 4-8 months. Schemes 2, 4 and 5 are also situated some distance outside of the study area for the Gate Burton Scheme and would not be expected to result in any trips on the transport and access receptors assessed within the ES. For Stow Park Farm (Scheme 1), WLDC concluded in their Screening Letter "It is not considered that impacts from transport or impacts on air quality would be likely to have a significant impact on the environment. Development of similar scale typically does not require an EIA as the number of vehicular movements generated would be unlikely to result in a significant impact on the environment." There will be negligible traffic increases associated with the operational phases of the four <50MW solar farm schemes. As such, there is considered to be no potential for cumulative effects as a result of the four <50MW solar farm schemes.

In terms of Scheme 3, whilst the main construction phase is expected to overlap with the peak construction phase for GBEP (2026), the scheme is situated outside of the GBEP study area and is only expected to result in a circa. 3% increase in trips on the A631 (to the west of the study area) during the peak hours which is considered to be immaterial. This increase would be lower for the part of the A631 within the vicinity of GBEP as trips would dissipate across the wider network. As such, there is considered to be no potential for cumulative effects as a result of Scheme 3.



Potential for Cumulative Effects

Relevant Cumulative Schemes

Cumulative Effect

In terms of Scheme 6, the DCO is expected to be submitted in 2026. Therefore, given that a decision is typically made 12-15 months after the application and there then follows a preparation and early works phase, it is not expected that there will be any overlap between the peak construction trips associated with this scheme (assumed to be 2028 onwards if consent is granted) and the peak construction phase of the Gate Burton Scheme (2026). As such, there is considered to be no potential for cumulative effects as a result of Scheme 6.

In terms of Scheme 7, the DCO is expected to be submitted in 2025. Therefore, given that a decision is typically made 12-15 months after the application and there then follows a preparation and early works phase, as with Scheme 6, it is not expected that there will be any overlap between the peak construction trips associated with this scheme (assumed to be 2027 onwards if consent is granted) and the peak construction phase of the Gate Burton Scheme (2026). As such, there is considered to be no potential for cumulative effects as a result of Scheme 7.

14. Human Health - As a result of the distance between the Schemes and Gate Burton Energy Park, no additional cumulative effects resulting from the schemes listed in Table 1 are anticipated during the construction, operation or decommissioning phases.

15. Other Environmental Topics

Waste: Increased waste to recycling plants and landfill.

There is limited interaction between the schemes and Gate Burton Energy Park, and therefore no additional cumulative effects resulting from the schemes listed in Table 1 are anticipated during the construction, operation or decommissioning phases.



| Potential Impact | Potential for Cumulative Effects | Relevant Cumulative Schemes | Cumulative Effect | | | | | |
|--|--|-----------------------------|-------------------|--|--|--|--|--|
| Air Quality: Increase in traffic emissions | As a result of the distance between the schemes and Gate Burton Energy Park, no additional cumulative effects resulting from the schemes listed in Table 1 are anticipated during the construction, operation or decommissioning phases. | | | | | | | |
| Glint and Glare | As a result of the distance between the schemes and Gate Burton Energy Park, no additional cumulative effects resulting from the schemes listed in Table 1 are anticipated during the construction, operation or decommissioning phases. | | | | | | | |
| Major Accidents and Disasters | As a result of the distance between the schemes and Gate Burton Energy Park, no additional cumulative effects resulting from the schemes listed in Table 1 are anticipated during the construction, operation or decommissioning phases. | | | | | | | |
| Telecommunications Television As a result of the distance between the schemes and Gate Burton Energy Park, no additional cumulative effects resulting from the schemes listed in Table 1 are anticipated during the construction, operation or decommissioning phases. | | | | | | | | |



Appendix A: Location of Additional Cumulative Schemes

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