

Gate Burton Energy Park Environmental Statement

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3. Alternatives and Design Evolution

3.1 Introduction

- 3.1.1 This chapter of the Environmental Statement (ES) describes the consideration of alternatives and design evolution in relation to the Scheme. The **Outline Design Principles [EN010131/APP/2.3]** set out the design principles and concepts that have been adopted to enable the development of the design to progress.
- 3.1.2 A glossary and list of abbreviations are provided in **Chapter 0: Contents, Glossary and Abbreviations** of the ES [EN010131/APP/3.1].

Legislation and Planning Policy

General Requirements to Consider Alternatives

- 3.1.3 Paragraph 2 of Schedule 4 of the Environmental Impact Assessment (EIA) Regulations (Ref 3-1) requires *“A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects”*.
- 3.1.4 When considering assessment principles, adopted National Policy Statement (NPS) EN-1 (Ref 3-2) paragraph 4.4.1 states that *“As in any planning case, the relevance or otherwise to the decision-making process of the existence (or alleged existence) of alternatives to a proposed development is in the first instance a matter of law, detailed guidance on which falls outside the scope of this NPS. From a policy perspective this NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option.”* This paragraph is retained without amendment in Paragraph 4.2.11 of the Draft NPS EN-1 (Ref 3-4).
- 3.1.5 NPS EN-1 paragraph 4.4.3 goes on to state that: *“where (as in the case of renewables) legislation imposes a specific quantitative target for particular technologies... the IPC should not reject an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site, and it should have regard as appropriate to the possibility that all suitable sites for energy infrastructure of the type proposed may be needed for future proposals”*.
- 3.1.6 Paragraph 4.2.13 of Draft NPS EN-1 similarly states that: *“the SoS should not refuse an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site.”*
- 3.1.7 Therefore, whilst there is a requirement to include information about the reasonable alternatives considered to meet the requirements of the EIA Regulations and other exceptions discussed below, there is no general policy

requirement to consider alternative sites; nor is it the case that an application should be refused solely on the grounds that another site exists for the development.

- 3.1.8 NPS EN-1 and Draft NPS EN-1 do, however, highlight that in addition to the requirement under the EIA Regulations, there are other specific legislative requirements and policy circumstances which require the consideration of alternatives. These include a requirement under the Habitats Directive, as transposed into UK law by the Conservation of Habitats and Species Regulations 2017. A Habitats Regulations Assessment has been submitted alongside the DCO application [EN010131/APP/7.2], it concludes there would be no likely significant effects on any European site from the Scheme alone or in-combination with any other plans or projects.

Policy Requirements to Consider Alternatives

- 3.1.9 There are also policy requirements to consider alternatives where there are likely significant effects on biodiversity and geological conservation interests; where there is development in areas of flood risk; and where there is development within nationally designated landscapes (see sections 5.3, 5.7 and 5.9 of NPS EN-1 and 5.4, 5.8 and 5.10 of Draft NPS EN-1). Paragraph 4.4.3 of NPS EN-1 (paragraph 4.2.13 in the Draft NPS EN-1) states “*where there is a policy or legal requirement to consider alternatives the applicant should describe the alternatives considered in compliance with these requirements*”.
- 3.1.10 On policies related to biodiversity and geology, **Chapter 8: Ecology and Nature Conservation** of this ES [EN010131/APP/3.1] reports no likely significant adverse effects so there is no need to consider explicit alternatives under this policy. However, opportunities to reduce impacts on biodiversity and maximise benefits in line with national and local planning policy have been taken throughout the design of the Scheme, with detail provided in **ES Chapter 8**.
- 3.1.11 On flood risk, the Scheme is classified as 'Essential Infrastructure' and the majority of the Solar and Energy Storage Park is situated within an area of low risk of flooding from any source. A sequential approach has been applied to the layout and design of the Solar and Energy Storage Park to avoid permanent development in the small areas of higher flood risk around watercourses on site. The Battery and Energy Storage System (BESS) and the substation are located in areas with the lowest risk of flooding, as shown in **ES Volume 2: Figure 2-4 [EN010131/APP/3.2]**. Where required, embedded mitigation has been included within the design. Further information is available in the in **Appendix 9-D: Flood Risk Assessment** of the ES [EN010131/APP/3.3]. Given that the majority of the Solar and Energy Storage Park has a low risk of flooding, no further work on alternatives is required for the Solar and Energy Storage Park.
- 3.1.12 A large proportion of the Grid Connection Corridor is located in Flood Zone 3a. The location of solar farms is largely dictated by the presence of a grid connection point with sufficient capacity for the electricity generated. This grid connection is available at the former Cottam power station site. The former power station is located in Flood Zone 2 and is surrounded by areas of Flood

Zone 3 (see fluvial flood risk map alongside the Order limits in **ES Volume 2: Figure 9-2 [EN010131/APP/3.2]**). Therefore, whilst other grid connection corridors were explored (see section 3.5 below) these alternatives were also located in Flood Zone 3 and there are no alternative routes available that avoid Flood Zones 2 and 3. Further information, including detail of how the development passes the Sequential and Exception tests, is provided in **Appendix 9-D** of the ES **[EN010131/APP/3.3]**.

- 3.1.13 The Scheme is not located within or in close proximity to any nationally designated landscapes, therefore there is no need to consider alternatives under NPS EN-1 section 5.9. However, at all stages the development of the project has been informed by the iterative EIA process, including carefully designing the scheme to take account of, and reduce, potential landscape and visual impacts. Further detail is provided in **Chapter 10: Landscape and Visual Amenity** of the ES **[EN010131/APP/3.1]**.

Weight Applied to Consideration of Alternatives

- 3.1.14 NPS EN-1 paragraph 4.4.3 provides guidance on how consideration of alternatives should guide decision making on DCO applications. It states that *“Given the level and urgency of need for new energy infrastructure, the IPC should, subject to any relevant legal requirements (e.g. under the Habitats Directive) which indicate otherwise, be guided by the following principles when deciding what weight should be given to alternatives...”*.

- 3.1.15 These principles include, but are not limited to:

- consideration of alternatives for policy requirements should be proportional;
- decision makers should consider whether alternatives could realistically provide the same capacity and be delivered over the same timescale;
- alternatives not studied by the applicant should only be considered where ‘important and relevant’ to decision making (proposals that are not commercially viable or vague will not meet this criterion); and
- wherever possible, alternatives should be identified before an application is made.

- 3.1.16 This wording of this policy is proposed to change in the Draft NPS EN-1, although the principles of the current policy are largely retained. A full review of compliance with this policy in both the adopted NPS EN-1 and draft NPS EN-1 is provided in Appendix A of the **Planning, Design and Access Statement [EN010131/APP/2.2]**.

- 3.1.17 Taking into consideration the policy and legal requirements as well as the iterative approach to the design, the following alternatives have been considered for the Scheme and are discussed in this chapter:

- site selection process and alternative sites considered (3.3);
- iteration of layout design and alternative layouts (3.4); and
- alternative cable route corridors and the combined corridor (3.5).

- 3.1.18 Consideration of ‘no development’ as an alternative to the Scheme has not been considered further. This is because ‘no development’ is not considered to be a reasonable alternative to the Scheme as it would not deliver the proposed renewable electricity generation capacity, a key principle for consideration of alternatives as set out in NPS EN-1. Other generation schemes such as wind power, nuclear, coal or gas fired power stations have also not been assessed due to their unsuitability to the Site or inability to contribute to the UK’s net zero obligation.

3.2 Need for the Scheme

- 3.2.1 The Scheme’s objective is to generate low-carbon electricity for an anticipated operational period of 60 years, to contribute to meeting the UK’s urgent need for significant amounts of new low-carbon electricity generation infrastructure as established in NPS EN-1. The **Statement of Need [EN010131/APP/2.1]** accompanying the DCO Application sets out a detailed case as to why the Scheme is urgently required. A summary is provided here.
- 3.2.2 NPS EN-1 is clear that in order to diversify and decarbonise electricity generation the Government is committed to “*increasing dramatically the amount of renewable generation capacity*”. It goes on to highlight that “*an increase in renewable electricity is essential to enable the UK to meet its commitments under the EU Renewable Energy Directive*”.
- 3.2.3 Draft NPSs EN-1 and EN-3 (Ref 3-5) provide Government’s latest position on the need for new low-carbon electricity generation infrastructure. These documents are not yet adopted, but are relevant and important considerations in decision making, presenting Government thinking on policy in 2021, ten years after adoption of the current NPSs. Draft EN-1 states that there is “*a need for significant amounts of new large-scale energy infrastructure to meet its energy objectives*” and Draft EN-3 states that “*solar is a key part of the government’s strategy for low-cost decarbonisation of the energy sector*”.
- 3.2.4 The inclusion of the BESS in the Scheme provides a means of further enhancing the utility of the electricity generated by the Scheme by storing surplus renewable energy generated by the Scheme and releasing it to the grid when it is needed. The BESS also provides other system balancing services to support the integration of more renewable generation onto the National Electricity Transmission System.
- 3.2.5 Decarbonisation is a UK legal requirement and is of global significance. In June 2019, Government, passed “Net Zero” law to end the UK’s contribution to global warming by 2050 (The Climate Change Act 2008 (2050 Target Amendment) Order 2019). The Government’s independent expert, the Climate Change Committee (CCC), recommend Carbon Budgets which, once adopted by Government, set in law the trajectory for decarbonisation actions consistent with meeting the Net Zero commitment. In recommending Carbon Budgets the CCC recognises that atmospheric carbon has a cumulative global heating effect and therefore urgent action is necessary. The Sixth Carbon Budget (enshrined in law in June 2021) runs from 2033 to 2037 and requires a 78% reduction in UK territorial emissions between 1990 and 2035.

- 3.2.6 In July 2022, the CCC published their report on UK emissions in 2021. The CCC concluded that the UK's emissions targets are compliant with the Paris Agreement and that the strategies to reach them are credible. However, the CCC also reported that that tangible progress is lagging the policy ambition, therefore implying that more needs to be done in delivery, in policy and in strategy. Without a greater emphasis and focus on delivery, the UK's climate ambitions may not remain credible.
- 3.2.7 Decarbonisation requires the substitution of electricity currently generated using fossil fuels with electricity from low-carbon sources. UK electricity demand is expected to double by 2050 because the UK's pathway to achieving Net Zero by 2050 will decarbonise transport, industry, agriculture and homes through electrification.
- 3.2.8 Emerging energy vectors, such as hydrogen, are also earmarked to enable the decarbonisation of traditionally hard-to-reach sectors, such as chemical processing and freight transport. A major source of hydrogen is expected to be through the electrolysis of water using low-carbon electricity. The need for significant growth in new low carbon generation assets, including well-proven renewable technologies such as solar, is therefore clear.
- 3.2.9 The UK's energy security needs must also be met, and the decommissioning of existing generation assets increases the requirement to develop new low-carbon generation with urgency in order to "keep the lights on". Nuclear power has historically met approximately 20% of demand in the United Kingdom, but existing nuclear stations began to close in 2021. Only one will remain beyond 2028 and only one new nuclear project is currently under construction. Any others will be unlikely to commission before the mid-2030s. UK coal is expected to close before 2024. Carbon Capture Use and Storage (CCUS) is being developed to support Net Zero by facilitating the decarbonisation of the UK's CCGT fleet, decarbonising industry, producing low-emissions hydrogen (an alternative to electrolysis) and delivering greenhouse gas removal technologies. Recent progress has been made towards bringing CCUS clusters forward by the end of the decade however Government recognises that *"the technology has not been delivered at scale and significant risks remain"*.
- 3.2.10 The British Energy Security Strategy (Ref 3-8) sets out Government's strategy to address the country's underlying vulnerability to international oil and gas prices by accelerating the transition away from oil and gas through the roll out of new renewables. The UK has substantial renewable energy resources, including 40% of Europe's wind resource. Government signalled its ambition for 50GW of offshore wind to be operational by 2030 (an increase of 10GW in its previous target). But wind on its own is not sufficient and the same strategy expects the 85% cost reductions achieved in solar over the last decade (solar is already a leading low-cost generation technology in the UK) to drive *"a five-fold increase in deployment by 2035"*.
- 3.2.11 The development of large-scale solar in the UK (National Grid estimates up to 42GW by 2030 rising to 92GW by 2050) will provide essential diversity to the UK's low-carbon generation portfolio, working with other technologies to deliver security of supply and value to UK consumers. Solar generation is a critical element of the plan to decarbonise the UK electricity sector and the

national need for solar generation is urgent. The solar capacity required is significantly greater than the capacity of projects currently understood to be in development.

- 3.2.12 Solar addresses all important aspects of existing and emerging government policy. It will make a critical and timely contribution to decarbonisation and security of supply in the UK, will help shield consumer bills from volatile energy prices, and provides the potential to deliver biodiversity net gains through its development.

3.3 Site Selection

- 3.3.1 The site selection process and confirmation of the site's suitability is set out below.
- 3.3.2 In comparison to some other areas of the UK, the east of England has a combination of high levels of irradiation and large flat open areas of land. The region also has a significant amount of pre-existing transmission infrastructure, which would reduce the likelihood that any new overhead infrastructure would be required to connect the generator to the transmission system. Therefore, the Applicant was looking for a site in the east of England for a large-scale solar farm.
- 3.3.3 A key requirement for a solar farm site is the availability of a grid connection with sufficient capacity for the electricity generated or a local energy user with a consistent demand for electricity that exceeds the maximum generation capacity.
- 3.3.4 If possible, there also needs to be landowner(s) agreeable to their land being used for the development. In the case of delivering a viable solar NSIP, a single contiguous land parcel (or sites in close proximity to one another) exceeding 300 ha was sought by the Applicant. A 'smaller development' as an alternative to the Scheme has not been considered further, as NPS EN-1 at paragraph 4.4.3 states that the decision maker: *"...should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security and climate change benefits) in the same timescale as the proposed development"*. A smaller scheme would not deliver the same generation capacity or energy security and climate change benefit as the Scheme, and as such would not represent a reasonable alternative. A Statement of Need is submitted with the Application which addresses the need for the Scheme at the size it is.
- 3.3.5 A viable solar site also requires good site topography and an area that would not generate unacceptable environmental and social impacts.
- 3.3.6 The Applicant's process of site selection consisted of a four-stage process summarised as follows:
- Stage 1 – identification of a 8km area of search for potential solar development sites based on operational criteria associated with the fixed point of connection. Constraints were mapped to 15 km to also capture potential constraints close to the area of search;

- Stage 2 – within the study area identified in Stage 1, exclusionary and discretionary planning and environmental criteria were applied to discount land within the area of search unsuitable to locate the solar scheme;
- Stage 3 – of the land that remained within the area of search after Stage 2, a series of key operational inclusionary criteria were applied such as site size, land assembly, site topography, access requirements and availability of brownfield land. In summary, this stage identified land suitable for solar development; and
- Stage 4 – Comprised of a desktop assessment and evaluation by environmentalist and planning specialists to consider the identified locations. This process identified the most suitable land opportunities that were potentially available for the siting of a solar scheme should the land be available for development.

Stage 1: Search Area Defined by Grid Connection

- 3.3.7 The proximity to and capacity of an available grid connection is key to the viability of a solar farm and battery storage project. A ‘transmission’ connection to connect to the National Electricity Transmission System (NETS) allows for the exportation of greater amounts of electricity than would be available on the local network and is ideal for large scale solar projects.
- 3.3.8 Cottam coal fired power station ceased generation in September 2019, however an existing National Grid substation is located adjacent to the site with capacity for the electricity formerly generated by the power station. This means that there is an available grid connection at the NETS Cottam substation with sufficient capacity for the new solar farm at Gate Burton. The further a solar farm is from the point of connection, the less efficient transmission to the grid becomes and the connection becomes considerably more costly. This can significantly affect the viability of solar development. It was therefore identified that 8 km would be the maximum viable distance for the proposed solar farm from the Cottam substation for a new solar farm.
- 3.3.9 Selecting a site closer to the substation would likely decrease environmental and social impacts associated with the connection and scheme would become more commercially viable. Therefore, a site within 8 km of the grid connection was preferred.

Stage 2: Environmental Constraints

- 3.3.10 An initial feasibility assessment was carried out for a study area within 8km of the Cottam Substation to identify the presence/absence of key environmental and social constraints. The search was used to identify contiguous potential developable areas of around or greater than 300ha with the ability to accommodate a NSIP solar scheme, which were not overly constrained. The developer had a preference for a single contiguous site as this would present an efficient use of land and potentially simpler land negotiations. However, this would not exclude development of schemes across multiple sites should all other criteria be met. The environmental and social constraints explored below were used to guide selection of a site within the 8 km search area.

Landscape Designations and Green Belt

- 3.3.11 When assessing potential sites for solar PV development, landscape designations including National Parks, Areas of Outstanding Natural Beauty (AONB) and Country Parks were excluded. No AONBs, National Parks or Country Parks were present within the search area. No areas of Green Belt land were identified within the 8km area of search.

Ecological Designations

- 3.3.12 Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar Sites, Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Local Nature Reserves (LNR), Local Wildlife Sites (LWS), Site of Importance for Nature Conservation (SINCs) and ancient woodland are generally avoided as potential areas of development. No designated or proposed SACs, SPAs, Ramsar sites, National Nature Reserves were located in the search area. **Figure 3-5 [EN010131/APP/3.2]** identifies all designated ecological sites within the 8km search area. This includes Ashton's Meadow SSSI, Lea Marsh SSSI and 15 Local Wildlife Sites. Given that buffers can be introduced within solar sites and the ecological impacts of solar farms are often positive, land within designations was excluded but land adjacent to these designations was retained.

Heritage Designations

- 3.3.13 Designated heritage assets such as Conservation Areas, Listed Buildings, Scheduled Monuments, Registered Parks and Gardens and Registered Battlefields were identified in the search area and excluded. **Figure 3-5 [EN010131/APP/3.2]** identifies all designations within the 8km area of search.

Local Allocations and Designations

- 3.3.14 Local Plans for the search area were reviewed to identify any local allocations and designations that should be excluded from the area of search or taken account of in the layout of the Scheme. Allocations for Sustainable Urban Extensions and Local Green Space near Gainsborough in the Adopted Central Lincolnshire Local Plan (April 2017) (CLLP) and Green Corridors in the Bassetlaw Local Plan 2020-2028 (review) were excluded. Local ecological designations such as Local Wildlife Sites were also excluded. **Figure 3-6 [EN010131/APP/3.2]** shows the proximity of the Order Limits to the above allocations and designations.
- 3.3.15 Areas of Great Landscape Value identified in the Draft Central Lincolnshire Local Plan and Green Gaps in the Draft Bassetlaw Local Plan were also identified but not excluded from development. The degree of conflict that a solar development would have with the policies associated with these designations depends on the extent of landscape and visual impacts, which in turn could be influenced by good site layout and design. Further, whilst local landscape designations should be paid particular attention, NPS EN-1 paragraph 5.9.14 states that *'local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development'*. Paragraph 5.9.15-16 go on to say that when determining DCO applications decision makers should *'judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits*

(including need) of the project. Given that development of NSIPs in local landscape designations can be acceptable and justified, these areas were not excluded. However, they have been taken into account in the layout of the Scheme as explored below.

Agricultural Land Classification

- 3.3.16 Planning policy seeks to minimise impacts on the best and most versatile (BMV) agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land that is not classified as best and most versatile (grades 3b, 4 and 5). **Figure 3-4 [EN010131/APP/3.2]** identifies all best and most versatile land within the 8km area of search. The plan shows that the majority of land within 8km of the grid connection point is mapped as Grade 3 agricultural land, however Natural England mapping does not distinguish between Grade 3a (which is BMV land) and Grade 3b (which is not). Therefore, all Grade 3 land was retained in the search area. There are areas of Grade 2 agricultural land located approximately 8-10km to the west and south west of Cottam power station; approximately 11km to the north and approximately 12km to the east. These areas were excluded from the search.

Proximity to dwellings

- 3.3.17 To minimise impacts on the local population, energy related development is generally sited in rural and agricultural areas where population densities are lower. To allow for sufficient setback from the Scheme, sites in proximity to larger urban areas such as Gainsborough and Lincoln were excluded from the search. Smaller settlements where sufficient setback from the Scheme could not be achieved were also excluded from the search.

Areas of high flood risk

- 3.3.18 Many aspects of solar development are resilient to flooding and areas under panels can be retained as permeable to reduce the risk of solar farms increasing flooding elsewhere. However, ancillary elements of solar PV arrays are flood sensitive and therefore avoiding areas of high flood risk was considered preferable in the site selection process. Extensive areas of land adjacent to the River Trent within the 8km area of search as shown in Figure 3-7 is in Flood Zone 3 (high risk of flooding) and was excluded from the search for the Solar and Energy Park.
- 3.3.19 Smaller areas of localised flood risk were retained given that smaller areas could be avoided or managed through sensitive site layout and design.

Stages 3 – Identification of potential solar development areas

- 3.3.20 Following the environmental and social constraints feasibility assessment within the 8km study area around the Cottam Substation, areas of land were identified as potentially suitable to accommodate a proposed solar development. This was further refined with the application of the following inclusionary criteria:
- Topography – the site needs to be flat or with gently south facing slopes;

- b. Site size and pattern – A suitable size of site is required for economic viability and the fields of a large and regular shape;
 - c. Access – ease of access for construction and decommissioning stages to be considered;
 - d. Brownfield land – suitable sites of brownfield land for the proposed solar farm were also considered; and
 - e. Landowner – preference for a small number of willing landowners that could form a contiguous site.
- 3.3.21 Flat land for solar development allows for more straightforward construction, reduces the shading of PV arrays and reduces the visual impact of the development. All land remaining following Stage 2 within the 8km search area with a 3% or less gradient, which is considered optimal for solar PV development, was considered suitable in terms of meeting the schemes requirements for maximising energy generation and avoiding visual intrusion.
- 3.3.22 Large areas of land are ideal for large scale solar development as open fields without vegetated boundaries mean less vegetation will be removed during construction. A land assembly of larger, fewer fields also means the buffering around field edges for tree root protection and the avoidance of shading can be reduced. Therefore, sites with larger open fields of a regular shape which were within the 8km area of search were preferred at this stage.
- 3.3.23 The construction of NSIP-scale solar development requires appropriate access for large vehicles to be available. Whilst construction access via a single access track can be achieved using traffic management, two-way access roads are preferred. Sites within proximity to two access roads were included at this stage. There was also a preference for the site to be situated on brownfield land, however no suitable areas of brownfield land at the appropriate scale were identified within the search area.

Stage 4 – Assessment of Gate Burton Site Against Site Exclusionary and Inclusionary Criteria

- 3.3.24 Having regard to the above environmental constraints at Stage 2 and the inclusionary criteria at Stage 3, the Gate Burton site (the Order Limits) was identified as being suitable for solar PV development. **Figure 3-8 [EN010131/APP/3.2]** shows the Order Limits within and areas of land that were excluded from the search area for the Solar and Energy Storage Park. The Gate Burton site met all criteria and avoided those areas likely to lead to a policy requirement to consider whether alternative sites would be preferable. However, at all stages of the EIA process alternatives have been considered to maximise benefits of the Scheme and minimise adverse environmental and social impacts. The section below sets out how the Gate Burton site performs when assessed against the criteria identified in stages 1-3.

Grid Connection

- 3.3.25 The Gate Burton site is located in close proximity to the grid connection at the NETS Cottam substation and therefore well situated with regard to the grid connection. The close proximity to the grid connection ensures the impacts on

the environment and community associated with the grid connection works are minimised as it requires a shorter connection route (approximately 7.5 km) to make the connection. The route of the grid connection itself has been subject to optioneering as set out in **Appendix 3-A: Grid Connection Corridor Appraisal** of the ES [EN010131/APP/3.3].

Landscape Designations

- 3.3.26 The Order limits are not within or in close proximity to any nationally designated landscapes. Part of the Order limits is located within the locally designated Area of Great Landscape Value as explored below.

Ecological Designations

- 3.3.27 No ecological designations were within the Solar and Energy Storage Park. Burton Wood ancient woodland borders the solar site on four sides, with buffers introduced to avoid affecting the designated area. The Grid Connection Corridor will cross Cow Pasture Lane Drains LWS so a sliver of this designation is within the Order limits. This area will be crossed via non-intrusive methods to avoid direct and indirect impacts to the LWS. The mitigation measures will be secured in the **Framework Construction Environmental Management Plan (CEMP)** [EN010131/APP/7.3]. The Gate Burton site is therefore not likely to have a significant adverse effect on ecological designations and can deliver Biodiversity Net Gain alongside the development.

Heritage Designations

- 3.3.28 There are no heritage designations on the site and a heritage buffer has been introduced to reduce the impact on the setting of assets. The layout has responded to the heritage assets, with panels excluded from the heritage buffer area and the internal access road to the BESS re-routed to be further from designated assets.

Local Allocations and Designations

- 3.3.29 The majority of the area of the Solar and Energy Storage Park to the west of the railway line is within the Area of Great Landscape Value designated in the Central Lincolnshire Local Plan 2012-2036. Particular attention was paid in the design and layout of this area to reduce the impact on the designated area, and landscape and visual impacts overall. However, as discussed above, NPS EN-1 makes it clear that local landscape designations should not be used in themselves to refuse consent so this area was not excluded from development. The remainder of the Solar and Energy Storage Park area is not designated or allocated for any alternative use in the Local Plan.
- 3.3.30 Bassetlaw Local Plan includes an area of the Grid Connection Corridor as part of a Priority Regeneration Area (Cottam Power Station Redevelopment). This is an area identified in the Local Plan as an area being promoted for mixed use development by the landowner. However, the Local Plan notes that there are a number of constraints affecting whether this can be realised including the setting of Fleet Plantation Scheduled Monument, areas of ground instability, continued use of part of the site by National Grid and access. The Local Plan does not therefore allocate the site. The development within the Priority Regeneration Area associated with the solar farm is limited to

temporary construction works to bury a cable to connect with the existing National Grid substation and the maintenance of the cable in situ. These works are associated with the current National Grid use of the site. There is therefore no conflict with policy on the Priority Regeneration Area.

Agricultural Land

- 3.3.31 As shown in **Figure 3-4 [EN010131/APP/3.2]**, the Solar and Energy Storage Park is located on land mapped as Grade 3 on the Natural England maps. In total, 12.3% of the land within the Solar and Energy Storage Park is subgrade 3a. The majority of the land within the study area is also mapped as Grade 3, with some Grade 2 areas further from the grid connection. The Grade 2 land was excluded given the abundance of Grade 3 land.
- 3.3.32 There is a strip of Grade 4 agricultural land to east of Cottam power station following the River Trent. Whilst this area can be crossed with the grid connection, this area would not be a reasonable alternative for the Solar and Energy Storage Park as it is a narrow, linear area largely comprising the river and its surrounding floodplain. There are also small pockets of Grade 4 land within the search area, but these are all far too small to host the scheme in its entirety so the majority of the Scheme would remain on land mapped as Grade 3 land. These pockets are further from the grid connection point than the Gate Burton site.
- 3.3.33 Soil sampling was undertaken within the Solar and Energy Park to confirm the category of agricultural land. The majority of land (87.7%) within the Solar and Energy Storage Park was not classified as BMV land, with the remainder being classified as Grade 3a. Given that the vast majority of the site is not Best and Most Versatile land and no alternative sites exist on land mapped at a lower grade, Gate Burton is sequentially a preferred site in terms of agricultural land classification. Following decommissioning of the Scheme, land can be returned to agricultural use, with potential improvements to yields as a result of the land not being farmed for a period of time. Therefore, no agricultural land is permanently lost. Selecting a site nearer the grid connection point also reduces the amount of agricultural land temporarily affected by the grid connection. Overall, no alternative sites were identified with a lower impact on Best and Most Versatile land.

Proximity to Dwellings

- 3.3.34 The Scheme is located outside major urban areas and there are no dwellings within the Order limits. Relatively few properties would be affected by the Scheme due to its location.
- 3.3.35 Throughout the design process efforts have been made to reduce the impact of the Scheme on residential amenity, including introducing buffer areas around properties to reduce impacts, landscaping to screen views and elements that generate more impacts such as the BESS and construction compounds away from properties.

Flood Risk

- 3.3.36 The Gate Burton site was identified as one of the nearest areas to the grid connection point outside the areas at high risk of flooding. This was considered an optimum location because it enabled development of a grid connection

over a shorter distance, with fewer associated environmental effects and costs, whilst avoiding areas of high flood risk.

- 3.3.37 As shown on **Figure 3-7 [EN010131/APP/3.2]**, the majority of the Solar and Energy Storage Park is located within Flood Zone 1 which is preferable for solar PV development. A small area of Flood Zone 2 and 3 is located within the Solar and Energy Storage Park, comprising existing small watercourses and adjacent areas. These small areas can be avoided through good scheme design. With the exception of the buried cable connection, no operational infrastructure is located within Flood Zone 2 and 3. The area of the grid connection and the surrounding area is in Flood Zones 2 and 3 so it is not possible to connect a Scheme to the grid connection point without going through areas at higher risk of flooding. The nature of the underground grid connection means that this element of the Scheme can be resilient to flooding and developed without increasing flood risk elsewhere.

Topography

- 3.3.38 The Solar and Energy Storage Park area of the Order limits is relatively flat and allows for the PV array to have a south facing configuration. The Order limits gently slope from the north-east to the south-west. The topography is ideal for the location of a solar farm both in terms of engineering requirements and limiting visual impacts associated with the Scheme.

Site Size and Pattern

- 3.3.39 The Site size meets the requirements for the new solar farm and is considered appropriate for the area. The majority of the Order limits comprise agricultural fields interspersed with individual trees, woodlands, hedgerows, linear tree belts, farm access tracks and local transport roads. The arable fields are large and generally regular in shape. The Site is open, with relatively few features that would result in shading. These features all increase the output of a solar farm, increase economic and technical viability and reduce the area that would need to be excluded for environmental reasons.

Access

- 3.3.40 The Order limits makes use of local networks and access tracks for construction and decommissioning where possible. Construction access for the Solar and Energy Storage Park will primarily utilise the A156 Gainsborough Road. The ability to connect easily to a main road is a positive aspect of the Scheme that would not be present in all locations within the search area.
- 3.3.41 For the Grid Connection Corridor, access will be via the A156, the A1500, Headstead Bank East, Headstead Bank West, Cottam Road North and Cottam Road South. The majority of accesses and traffic using them will be temporary for the construction period. All identified accesses are considered suitable for the traffic generated. Further details on traffic, access and the transport assessment can be found in **Chapter 13: Transport and Access** of the ES **[EN010131/APP/3.1]**.

Brownfield Land

- 3.3.42 No suitable areas of brownfield land of the appropriate scale were identified within search area that could form a reasonable alternative to the Order limits.

Landowners

- 3.3.43 The area of the Solar and Energy Storage Park has been influenced by the presence of willing landowners and the recognised need to identify land that landowners would like to remove from agricultural production. The Statement of Reasons [EN010131/APP/6.4] and Compulsory Acquisition Schedule [EN010131/APP/6.5] sets out the latest status of negotiations with landowners and demonstrates that this criterion has been met.
- 3.3.44 Voluntary land agreements are in process with all landowners within the Order limits. Compulsory acquisition powers are being sought through the DCO as a backstop and will only be exercised if it is not possible to rely on voluntary agreements for a component of the Scheme.

3.4 Order limits and Alternative Layouts

Introduction

- 3.4.1 Prior to finalising the Order limits there have been several stages of design evolution, during which the original area of the Order limits and layout have been refined. This process of design evolution has been informed by ongoing environmental assessments, engineering and design considerations and engagement with stakeholders. At the EIA Scoping stage, the area under consideration (**ES Volume 2: Figure 3-1 [EN010131/APP/3.2]**) comprised an area of 1,654 ha to ensure that maximum potential area for the Scheme was considered. The same area was considered at the non-statutory consultation stage, and then refined ahead of the statutory consultation and preparation of the Preliminary Environmental Information (PEI) Report (**ES Volume 2: Figure 3-2 [EN010131/APP/3.2]**). The area of the Order limits was reduced to 1,436 ha through technical surveys, site visits and assessments, design development and having regard to feedback received during non-statutory consultation.
- 3.4.2 Following publication of the PEI Report and completion of statutory consultation, the PEI Boundary was further refined to the area now proposed as the Order limits, being an area of approximately 824 ha (**ES Volume 2: Figure 1-2 [EN010131/APP/3.2]**) and described in **Chapter 2: The Scheme [EN010131/APP/3.1]**. Further details on the progression of the Order limits and design are provided below.

Progression of the Order limits and Scheme Design

- 3.4.3 The layout of the Scheme has evolved iteratively taking into consideration environmental effects, the Scheme's objectives and functionality, and feedback from stakeholders and the local community.
- 3.4.4 The purpose of this section is to describe the alternative layouts considered for the Scheme to date and the changes to the Order limits. The **Planning, Design and Access Statement [EN010118/APP/2.2]**, submitted with the

DCO Application, further explains the design evolution of the Scheme. Table 3-1 summarises the main design layout iterations considered so far for the Scheme. The following figures (as shown in **ES Volume 2 [EN010131/APP/3.2]**) illustrate the changes in terms of land area:

- **Figure 3-1:** EIA Scoping Site Boundary (which illustrates the boundary at EIA Scoping Stage);
- **Figure 3-2:** PEI Report Site Boundary;
- **Figure 1-2:** Order Limits (which illustrates the boundary at DCO application stage);
- **Figure 3-3:** Alternative Cable Route Corridors; and
- **Figure 5-1:** Shared Grid Connection Corridor.

Table 3-1: Main Design Iterations for the Order limits

Stage	Proposed Layout	Consultation which influenced the proposed layout at this stage	Design evolution
EIA Scoping (12 November 2021)	<p>Solar and Energy Storage Park Comprised several parcels of land within the Solar and Energy Storage Park</p> <p>Grid Connection Corridor Four grid connection corridors were proposed.</p> <p>The Scoping Report Boundary, has an area totalling 1654ha</p>	<p>This was a preliminary site boundary prior to extensive consultation with relevant stakeholders and therefore was not influenced by external parties.</p>	<p>The EIA Scoping Site Boundary was produced with data from desk based and preliminary environmental surveys and was adopted with a view to including in the Scoping Report any land that could ultimately be within the Order limits. The intention was that the area would be further refined following surveys, environmental assessment, and consultation. No layout was illustrated in the Scoping Report.</p>
Non-Statutory Consultation Indicative Concept Masterplan (January / February 2022) and Grid Connection Options	<p>Solar and Energy Storage Park: The Concept Masterplan covered the Solar and Energy Storage Park and used the same boundary as shown for Scoping.</p> <p>Grid Connection Corridor:</p>	<p>Receipt of the Scoping Opinion</p> <p>Landowner discussions</p>	<p>The Non-Statutory Consultation Indicative Concept Masterplan was a preliminary and high level layout showing the key features of the Scheme. It was developed with the feedback from the EIA scoping process, the design team, preliminary environmental mitigation recommendations in particular key areas for planting and screening, development of the Outline Design Principles and ongoing landowner discussions.</p>

Stage	Proposed Layout	Consultation which influenced the proposed layout at this stage	Design evolution
	<p>Four broad corridors were still included for the grid connection.</p> <p>The total area remained the same as in the Scoping Report Boundary - 1654ha.</p>		
<p>PEI Report Layout (June 2022)</p>	<p>The PEI Boundary comprised several parcels of land separated by areas of woodland totalling 1436 ha, comprising both the Solar and Energy Storage Park and a single grid connection corridor. The Grid Connection Corridor taken forward is discussed further in Section 3.5 below. This is a reduction in size from EIA Scoping and the Non-Statutory Consultation.</p>	<p>Landowner discussions</p> <p>Non-statutory consultation feedback</p> <p>Agricultural Land Classification Surveys</p> <p>Environmental Surveys and desktop study, including landscape and visual, ecology, heritage, noise, transport, water and flood risk and other topics forming the PEI Report.</p> <p>Grid Connection Options Analysis.</p>	<p>Further reduction in land and refinement of the layout plan following desktop analysis and site surveys.</p> <p>Solar and Energy Storage Park: The larger built elements of the solar farm, such as the substation and BESS were carefully located in areas of reduced flooding and are screened by existing woodland with views further screened by topography and existing vegetation.</p> <p>As a result of the environmental design process and consultation the Scheme incorporated the following outline design principles:</p> <ul style="list-style-type: none"> • Provision of buffers and offsets from existing landscape features such as ponds, hedgerows, woodland and Public Rights of Way; • A heritage setting buffer was proposed to provide offset from listed buildings at Gate Burton, at the Solar and Energy Storage Park’s western boundary; • New grassland and wildflower mixes under the panels were proposed to enhance the range of fauna, enhancing biodiversity and providing resource for pollinators;

Stage	Proposed Layout	Consultation which influenced the proposed layout at this stage	Design evolution
			<ul style="list-style-type: none"> • Screening and planting design was proposed to reduce visual impact by providing environmental enhancement areas, offsets and buffer zones; and • Siting of infrastructure to avoid below ground archaeological features wherever possible was also considered and screening and planting was designed to minimise impact on the setting of heritage assets. <p>The strategic environmental design was developed for the PEI Report to respond to the environmental opportunities and constraints of the Site and non-statutory consultation feedback, particularly in relation to scale, proximity to existing residential areas, visual impact, and ecological and heritage assets. This identified developable areas for solar PV, battery storage and suitable locations for associated infrastructure as well as environmental mitigation.</p> <p>The proposed developable area for Solar PV was approximately 429 ha, with substantial areas identified as habitat, access, vegetation connectivity and associated infrastructure.</p> <p>Grid Connection Corridor: Further refinement to the Grid Connection Corridor has been undertaken, with a single route selected from the original four presented in the EIA Scoping Report. Further information on this selection process is provided in Section 3.5.1 below.</p>
Order limits and Application Layout (ES Volume 2: Figure 2-4)	The Order limits comprises the Solar and Energy Storage Park, the Grid Connection Corridor	Landowner discussions Statutory consultation feedback and ongoing	Following statutory consultation, several changes were made to the PEI Report layout, for the Solar and Energy Storage Park and the Grid Connection Corridor, as set out below. These changes are illustrated in ES Volume 2: Figure 2-4 [EN010118/APP/3.2] .

Stage	Proposed Layout	Consultation which influenced the proposed layout at this stage	Design evolution
[EN010118/APP/3.2], January 2023)	and highway improvement works, totalling an area of approximately 824 ha. This is a reduction in size from the PEI Report Boundary.	engagement with consultees/stakeholders	<p>Solar and Energy Storage Park:</p> <ul style="list-style-type: none"> • Offsets from properties were reviewed and adjusted through design development to respond to the existing character of views from residential properties. This includes removal of panels from: <ul style="list-style-type: none"> – The north-easternmost field (B3), to reduce visual effects on properties along Kexby Lane; – The central northern part of the Solar and Energy Storage Park, to reduce visual effects on Knaith Park; – The area surrounding Clay Farm; and – The area surrounding Sandy Barr. The Scheme design has been carefully sited to avoid or minimise adverse effects to views from residential properties. • The removal of a large area of panels in close proximity to ‘Site of Heynings Priory’ Scheduled Monument to provide offset and therefore reduce setting effects of the Scheme on the asset, in response to comments from Historic England. The removal of panels in this field was also beneficial to ecology, as it removed an area of marshy grassland, considered of higher ecological value than surrounding fields. • The removal of panels from field A14 (to the west of Burton Wood), therefore extending the heritage setting buffer shown in the PEI Report (discussed above) and providing a greater offset from listed buildings at Gate Burton, at the Solar and Energy Storage Park’s western boundary. • The removal of panels in field A20 to avoid impacts upon archaeology. • Removal of panels from areas of higher flood risk and incorporation of skylark habitat. • Removal of large areas of woodland and two residential properties from the Order limits, such as Burton Wood and Clay Farm to reflect the lack of development proposed within these locations. • Removal of the majority of land within the Order limits shown as ‘Solar Panel Exclusion Zone’ in the north-west of the Solar and Energy Storage

Stage	Proposed Layout	Consultation which influenced the proposed layout at this stage	Design evolution
			<p>Park. This land was not considered necessary to include, as biodiversity net gain could be achieved within other areas of the Order limits.</p> <ul style="list-style-type: none">• Undergrounding of existing overhead lines across the Site.• Refinement of the Order limits to reduce the land take required for the main access point from the A156.• Inclusion of road verges and highways land for minor road widening, resulting in small increases in the Order limits. These areas alongside small additional areas included to reflect accurate land ownership boundaries were consulted on as part of the Targeted Consultation Exercise undertaken in November-December 2022. <p>Grid Connection Corridor:</p> <ul style="list-style-type: none">• Reduction in area within the Order limits for the Grid Connection Area when compared to the Order limits presented in the PEI Report. This was primarily to refine the Order limits following review of additional survey information and further feasibility studies.• Inclusion of road verges and highways land for minor road widening.

Alternative Habitat Management Options

- 3.4.5 In developing the proposals for the Scheme, opportunities have been explored to provide significant areas of landscape and biodiversity enhancement to deliver an overall increase the biodiversity value of the site compared to the current position (i.e. maximise biodiversity net gain). These opportunities were discussed and agreed with relevant statutory stakeholders such as Natural England and the host authorities. It also formed part of the statutory consultation, seeking feedback from the local community and other stakeholders on options for delivering habitat management and biodiversity enhancement.
- 3.4.6 The proposals to include significant areas of biodiversity enhancements and additional landscape elements were already well defined at the statutory consultation stage. These areas are illustrated in the **Outline Landscape and Ecological Management Plan (OLEMP) [EN010118/APP/7.10]** which will be secured through the DCO Requirement.
- 3.4.7 Given the availability of land and potential for betterment, it was not considered appropriate to only seek to mitigate significant visual effects and achieve the minimum policy expectations. The OLEMP illustrates the extensive planting and habitat enhancement proposals, and the **Biodiversity Net Gain Report [EN010118/APP/7.9]** demonstrates that the Scheme will achieve net gain for biodiversity.

3.5 Alternative Cable Route Corridors

- 3.5.1 An optioneering process was undertaken to identify the cable route corridors for the Scheme to connect to the existing Cottam Substation. The options appraisal report is included in **ES Volume 3: Appendix 3-A [EN010131/APP/3.3]**.
- 3.5.2 Four corridors for connection to Cottam substation were considered at EIA Scoping and non-statutory consultation stage. An options appraisal exercise was undertaken to identify and review the engineering, constructability and environmental constraints within each of the corridors in order to identify a preferred corridor. The options appraisal and the non-statutory consultation undertaken in February 2022 included consideration of both an overhead power line (OHL) and an underground cable. The corridors considered are referred to as Corridors A, B, C1 and C2 and are shown in **ES Volume 2: Figure 3-3 [EN010131/APP/3.2]**.
- 3.5.3 Key feedback from the environmental and social options appraisal and the non-statutory consultation was:
- An underground cable was identified as preferred during non-statutory consultation due to lower visual effects and less intrusion in the area particularly north and south of Marton, either side of the River Trent where the landscape is relatively flat and open, and at residential and agricultural properties between Cottam and Littleborough;

- Installation of an OHL across the River Trent would potentially give rise to ecological likely significant effects due to increased risk of collision of birds, including swans, geese and ducks using the River Trent corridor;
- The River Trent is a major arterial river which results in a focus of historic settlement and development adjacent to the river. In all corridors, there are significant known archaeological assets. Should an underground option be progressed, further archaeological evaluation would be required to maximise opportunities to avoid impact to archaeological deposits;
- An OHL option in Corridors A, B and C2 would give rise to significant permanent effects to designated built heritage assets including the parkland garden of Knaith Hall Grade II listed building, Gate Burton Grade II* listed building, the Burton Chateau Grade II* listed building, a Grade II listed building at Littleborough Cottage, the Grade II* listed Church of St Peter and St Paul in Sturton le Steeple, and a cluster of listed buildings at Torksey including the Grade I listed Torksey Castle (also a scheduled monument) and the Grade II* listed Torksey Viaduct over the River Trent;
- In terms of air quality, noise and vibration and traffic and transport, there was relatively little to differentiate the corridors as they all cross the A156 and the River Trent, have a similar number of receptors, and would be likely to utilise similar access routes (being the A156 east of the River Trent and Cottam Road and Northfield Road west of the River Trent), for the purposes of construction; and
- The existing flood defence embankments on the eastern and western sides of the River Trent were identified as a key constraint. Whichever option is adopted the connection would be designed to ensure no impact to the structure and integrity of the flood defence embankments.

Selection of the Preferred Corridor

3.5.4 Following receipt of the above feedback and the environmental options appraisal:

- Corridor C2 was ruled out on the basis of the significant number of ecological and heritage constraints together with the narrow nature of the corridor meaning opportunities to avoid constraints during detailed design would be limited;
- An OHL option in Corridor A and B was ruled out due to the high level of certainty that this option would give rise to LSEs to the Grade II* listed buildings in those corridors, together with their setting;
- The OHL option was identified as less preferred. The outline design principle of undergrounding the cable was adopted;
- Further targeted archaeological work including walk-over, consultation, aerial analysis, and extended desk-top research was undertaken for Corridors A, B and C1 and this work resulted in ruling out Corridors A and B due to the presence of two scheduled monuments, the Roman

Town at Segelocum, the Roman fort south of Littleborough Lane and the medieval moated site at Fleet Plantation.

- 3.5.5 The combination of a preference for an underground cable together with the extent of known beneath ground archaeological assets located in Corridors A & B and the ruling out of Corridor C2 resulted in the selection of Corridor C1 as the preferred option. Corridor C1 was identified as providing the best balance of minimising impacts on the environment and the local community whilst meeting the technical and constructability feasibility requirements.

Shared Grid Connection Corridor

- 3.5.6 The Scheme is located in close proximity to the proposed Cottam and West Burton solar projects. Gate Burton Energy Park and the developer for the West Burton and Cottam solar projects have worked collaboratively on design development and environmental avoidance/ mitigation to reduce overall environmental and social effects. In particular, the two companies have worked together to reduce the impact on communities in close proximity to the Grid Connection Corridor and on known ecological and archaeologically sensitive areas adjacent to the River Trent, including the Viking Great Army Winter Camp (MLI125067) on the eastern side of the River Trent (refer to **Chapter 7: Cultural Heritage [EN010131/APP/3.1]**).
- 3.5.7 Opportunities to combine the connection corridor areas have been explored and have resulted in the identification of a shared Grid Connection Corridor area.
- 3.5.8 The Shared Grid Connection Corridor (**ES Volume 2: Figure 5-1 [EN010131/APP/3.2]**) comprises an area within which Gate Burton Energy Park will locate its connection to Cottam sub-station and Island Green Power will locate its connection to Cottam sub-station and, in part, its connection to West Burton. The shared grid connection corridor is further defined within **Chapter 5: EIA Methodology [EN010131/APP/3.1]** with the cumulative effects and respective environmental mitigation reported within each of the topic chapters.

3.6 References

- Ref 3-1 Her Majesty's Stationary Office (HMSO) (2017) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Available at: http://www.legislation.gov.uk/ukxi/2017/572/pdfs/ukxi_20170572_en.pdf
- Ref 3-2 Department of Energy and Climate Change (DECC), (2011) National Policy Statement for Energy (EN-1), Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf
- Ref 3-3 Department of Energy and Climate Change (DECC), (2011) National Policy Statement for Renewable Energy Infrastructure (EN-3), Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47856/1940-nps-renewable-energy-en3.pdf.
- Ref 3-4 Department of Energy and Climate Change (DECC), (2021) Draft National Policy Statement for Energy (EN-1), Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1015233/en-1-draft-for-consultation.pdf
- Ref 3-5 Department of Energy and Climate Change (DECC), (2021) Draft National Policy Statement for Renewable Energy Infrastructure (EN-3), Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1015236/en-3-draft-for-consultation.pdf
- Ref 3-6 Intergovernmental Panel on Climate Change (October 2018) 'Special Report on the impacts of global warming of 1.5°C above pre-industrial levels'
- Ref 3-7 Committee on Climate Change (May 2019) Net-Zero: The UK's contribution to stopping global warming'
- Ref 3-8 Department for Business, Energy and Industrial Strategy (2022) British Energy Security Strategy 2022. Available at: <https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy>