

Written Representation to REP1a-002 (Applicant's Responses to Relevant Representations)

Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Grid connection	The connection to the grid is in the wrong place in Boreham and should be made elsewhere.	RR-04, RR-33	The Applicant has received a grid connection offer from National Grid Electricity System Operator Limited (NGESO) to connect the Scheme to the NETS. The Applicant considered building a new substation connecting directly into the 400kV lines within the site, but this was discounted at the optioneering stage due to significant environmental impacts. Further information is presented in ES Chapter 3: Alternatives and Design Evolution [APP-035] . The Applicant believes that connecting into Bulls Lodge substation is the best solution, due to the nature of the existing development being immediately adjacent to the proposed development.	n/a
Alternative sites	The Applicant has not considered using lower grade agricultural land elsewhere in Essex appropriately.	RR-07, RR-12, RR-15, RR-17, RR-27, RR-35, RR-38, RR-41, RR-47, RR-48, RR-59, RR-61, RR-63, RR-64, RR-67, RR-74, RR-77, RR-20, RR-39, RR-50	The use of agricultural land for the Scheme is justified by the urgent need for renewable energy generation. The Scheme is urgently needed in order to generate renewable energy to contribute to meeting the Government's legally binding commitment for the country to reach net-zero by 2050, and to address the cause of climate change. This is set out further in the Statement of Need [APP- 203] . Consideration of alternatives is presented in ES Chapter 3: Alternatives and Design Evolution [APP-035] . In summary, the vast majority of land within the area of search is of similar Agricultural Land Classification (ALC) to the Order limits. The Order limits comprises approximately: 60% Grade 3b, 22% Grade 3a, 12% Grade 2 and 6% non-agricultural or unknown. There are no alternative sites considered by the Applicant that are clearly of a lower non-BMV ALC grade than the Order limits (whilst also meeting other criteria of the Applicant, as set out in Chapter 3 of the ES) within a reasonable distance of Bulls Lodge Substation (for which the Applicant has obtained a grid connection agreement).	While there is indeed an urgent need for renewable energy, this does not negate the need to keep productive agricultural land. To do so would be short sighted. If we already import 40% of our food, and the development is expected to be operational for approximately 40 years, how much more of our food will we have to import during that time and how can that feasibly contribute to lowering our carbon footprint? By these calculations, the entire scheme is on Best and Most Versatile Land, baring in mind 3B is now considered BMV. Whether there are no alternative sites is not sufficient reason to go ahead with the proposal regardless given the trade off of farmland. It is always an option to favour nuclear or offshore wind instead. Government policy has consistently aimed to protect valuable farmland. Most recently: Energy Security Strategy (7/4/22) "We will continue supporting the effective use of land by encouraging large scale projects to locate on previously developed or lower value land". Food Strategy (13/6/22)Para 1.2.2 "it is possible to target land use change at the least productive land" It is of note also that the Solar Trade Association best practice guide includes 'the avoidance of high-grade agricultural land'. This also conflicts with the updated NPPF (July 2021) which includes a strengthening of the environmental objective - "requiring sustainable development to protect and enhance our natural, built and historic environment including making effective use of land and improving biodiversity"
Site selection	Solar energy generation should be located on other types of land, such as residential/industrial rooftops/offshore/motorways.	RR-07, RR-08, RR-11, RR-12, RR-16, RR-18, RR-22, RR-26, RR-38, RR-44, RR-46, RR-47, RR-48, RR-49, RR-52, RR-55, RR-57, RR-59, RR-60, RR-61, RR-62, RR-68, RR-69, RR-76, RR-77, RR-20	Consideration of alternatives is presented in ES Chapter 3: Alternatives and Design Evolution [APP-035] . In summary, the vast majority of land within the area of search is of similar Agricultural Land Classification (ALC) to the Order limits. The Order limits comprises approximately: 60% Grade 3b, 22% Grade 3a, 12% Grade 2 and 6% non-agricultural or unknown. There are no alternative sites considered by the Applicant that are clearly of a lower non-BMV ALC grade than the Order limits (whilst also meeting other criteria of the Applicant, as set out in Chapter 3 of the ES) within a reasonable distance of Bulls Lodge Substation (for which the Applicant has obtained a grid connection agreement). The Applicant is committed to developing reliable sources of renewable energy, this includes developing both utility scale and rooftop solar developments. Rooftop generation is often the quickest and cheapest way to deploy renewable energy, however rooftop generation is rarely able to generate the total demand of the site it occupies. Typically, rooftop generation is capable of providing 15% of demand for the intensive industrial or commercial site on which it is deployed – leaving the remaining 85% of demand to be supplied by the national grid, and utility scale solar developments such as Longfield Solar Farm, which supply that grid. In summary, the applicant believes that all forms of deployment of Solar are required in order to generate renewable energy to contribute to meeting the Government's legally binding commitment for the country to reach net-zero by 2050, and to address the cause of climate change. For further details, please see the Statement of Need [APP-203] submitted as part of the DCO application.	Consideration of alternatives and the criteria they were assessed against was presented retrospectively: ES Chapter 3 was published 15 months after the developers publicly acknowledged they had not considered alternative sites at all during their webinar in November 2020.

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Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Site selection	The scheme should be located on lower grade agricultural land.	RR-09, RR-12, RR-25, RR-30, RR-38, RR-41, RR-42, RR-44, RR-47, RR-48, RR-49, RR-53, RR-59, RR-61, RR-67, RR-74, RR-75, RR-39, RR-50	The use of agricultural land for the Scheme is justified by the urgent need for renewable energy generation. The Scheme is urgently needed in order to generate renewable energy to contribute to meeting the Government's legally binding commitment for the country to reach net-zero by 2050, and to address the cause of climate change. This is set out further in the Statement of Need [APP- 203] . Consideration of alternatives is presented in ES Chapter 3: Alternatives and Design Evolution [APP-035] . In summary, the vast majority of land within the area of search is of similar Agricultural Land Classification (ALC) to the Order limits. The Order limits comprises approximately: 60% Grade 3b, 22% Grade 3a, 12% Grade 2 and 6% non-agricultural or unknown. There are no alternative sites considered by the Applicant that are clearly of a lower non-BMV ALC grade than the Order limits (whilst also meeting other criteria of the Applicant, as set out in Chapter 3 of the ES) within a reasonable distance of Bulls Lodge Substation (for which the Applicant has obtained a grid connection agreement). Whilst the Scheme will result in best and most versatile agricultural land not being available for agricultural use over its lifetime, the non-intrusive and reversible nature of solar development means that there will be very little permanent loss of agricultural land. The soil will have undergone recovery through less intensive farming such as being left fallow, or sheep grazing and is expected to be the same or better quality as it is currently. Section 12.8 of ES Chapter 12: Socio-economics and Land Use [APP-044] concludes this is not significant in EIA terms.	While there is indeed an urgent need for renewable energy, this does not negate the need to keep productive agricultural land. To do so would be short sighted. If we already import 40% of our food, and the development is expected to be operational for approximately 40 years, how much more of our food will we have to import during that time and how can that feasibly contribute to lowering our carbon footprint? By these calculations, the entire scheme is on Best and Most Versatile Land, baring in mind George Eustice states 3B is now considered BMV. Whether there are no alternative sites is not sufficient reason to go ahead with the proposal regardless given the trade off of farmland. It is always an option to favour nuclear or offshore wind instead. The applicant implies it is acceptable to lose BMV land on the basis it is non-permanent, but 40 years is a long time to lose food producing land when it's combined with the rest of the farmland lost to solar farms.
Site selection	It is an area that is subject to large developments already (Chelmsford Garden Village).	RR-18, RR-29, RR-38, RR-57, RR-65	The Applicant has engaged with the developers of the Chelmsford Garden Community as set out in Table 8-1 of the Consultation Report [APP-018] . Discussions are ongoing with the host authorities in terms of cumulative impacts, with details to be captured in the Statement of Common Ground between the parties. Specifically in relation to cumulative impacts with the new transport infrastructure to support the Chelmsford Garden Community, including the Chelmsford North East Bypass, these are considered in section 13.11 of ES Chapter 13: Transport and Access [APP-045] . In summary, no cumulative impacts upon the highway network are envisaged based on the assessment in the ES. The cumulative effects are therefore expected to remain negligible.	Discussions are ongoing with the host authorities in terms of cumulative impacts, with details to be captured in the Statement of Common Ground between the parties. This is an important piece of information missing from the application and work should not proceed until the cumulative impacts are better evidenced.
Site selection	A brownfield site would be more suitable.	RR-18, RR-19, RR-22, RR-38, RR-42, RR-48, RR-53, RR-55, RR-59, RR-61, RR-62, RR-63, RR-68, RR-76, RR-77, RR-20	The use of agricultural land for the Scheme is justified by the urgent need for renewable energy generation. The Scheme is urgently needed in order to generate renewable energy to contribute to meeting the Government's legally binding commitment for the country to reach net-zero by 2050, and to address the cause of climate change. This is set out further in the Statement of Need [APP- 203] . Consideration of alternatives is presented in ES Chapter 3: Alternatives and Design Evolution [APP-035] . In summary, the vast majority of land within the area of search is of similar Agricultural Land Classification (ALC) to the Order limits. The Order limits comprises approximately: 60% Grade 3b, 22% Grade 3a, 12% Grade 2 and 6% non-agricultural or unknown. There are no alternative sites considered by the Applicant that are clearly of a lower non-BMV ALC grade than the Order limits (whilst also meeting other criteria of the Applicant, as set out in Chapter 3 of the ES) within a reasonable distance of Bulls Lodge Substation (for which the Applicant has obtained a grid connection agreement).	n/a
Site selection	The Applicant initially claimed the site had been selected due to the presence of a single willing landowner, but land from more than one landowner is required for the Scheme.	RR-48, RR-53, RR-61, RR-64, RR-67, RR-76	The Solar Farm Site is within the control of a single landowner as set out in the Book of Reference [APP-016] and explained in the Statement of Reasons [APP-014] – this represents the vast majority of the land making up the Order limits over which the Applicant has reach an agreement with the landowner. The Applicant is in discussions in relation to additional much smaller areas of land and rights required in relation to the Grid Connection Route, Bulls Lodge Substation Extension and the land required for access to the Scheme, with a view to reaching agreement with relevant landowners. The Applicant seeks compulsory acquisition powers in the DCO in order that, should it not be able to reach agreement with landowners, this nationally significant infrastructure project may still be delivered in line with the proposed programme, in order to meet the urgent need for renewable energy in the UK. The approach taken is common amongst energy infrastructure schemes. The Statement of Reasons [APP-014] includes more detail in respect of the powers sought over land and the status of discussions with affected landowners.	n/a

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Site selection	The Scheme is proposed in an area where the conditions for generating solar energy are not optimal.	RR-59	Essex represents a good location within the UK to construct a solar farm. This is because it benefits from high levels of solar irradiance compared to other parts of the UK and is characterised by a generally low lying and flat topography, which increases the likelihood of being able to identify a suitable site that is capable of producing a large amount of electricity. Essex is in the South East of England, in close proximity to London, which means it is near to high demand centres for electricity. The location of electricity generation infrastructure close to areas of high demand helps to minimise losses associated with the transfer of electricity over long distances. The Applicant therefore sought a suitable generation site and point of connection to the electricity network in this area.	Flat topography is also the most suitable land for farming due to the absence of nutrient leaching, and results in BMV (including 3b) farmland.
Site selection	A proposal of this nature should not proceed until the Government has set out a policy on the siting of solar farms that is genuinely sustainable.	RR-62	The Scheme complies with local and national planning policy as set out in the Planning Statement [APP-204] .	It does not comply with the energy security strategy where it states a preference for supporting effective use of land by encouraging large scale projects to locate on previously developed, or lower value land.

Table B-2 Amenity and recreation

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Permissive paths	The Applicant should ensure that permissive paths should be of sufficient quality and have appropriate supporting facilities, such as cycle racks in village centres, to encourage family use.	RR-33	The Applicant is discussing matters with ECC and an update will be included within the Statement of Common Ground between the Applicant and host authorities.	There are 2 issues here: 1) Being remote from villages does not negate the issue of being a blot on the landscape as many residents enjoy the area without having to live in the area that will be covered by the scheme 2) Considerably reducing sight-lines is not an adequate solution especially for a scheme of this size.
Recreation	There has been no serious assessment of recreation impacts.	RR-59	The Applicant respectfully disagrees with this statement. Impacts on recreation have been assessed in the Environmental Statement. Chapter 12 Socio- economics and Land Use assesses effects on Public Rights of Way (PRoW) and their users, which are considered to represent the current recreational opportunity at the Site as the rest of it is in agricultural use. The assessment concluded that "during construction and decommissioning there would be negligible effects on user journeys, and the recreational use of routes, owing to the provision of temporary diversions wherever diversions or closures are required that would add minimal lengths to journeys. During operation, effects on users of PRoW were assessed to be minor beneficial, arising from the provision of new permissive routes. This provision can be considered to expand recreational opportunities when compared to existing provision due to the network of routes being extended. ES Chapter 15: Human Health [APP-047] also assessed impacts of the Scheme on accessibility and active travel. This concluded that there was the potential for negative impacts on users of PRoW during construction and decommissioning arising from potential changes in amenity. These would be temporary in nature and experienced only in proximity to the Scheme works when travelling along the routes. ES Appendix 13C: Public Rights of Way Management Plan [APP-095] proposes measures to mitigate and manage these impacts. During operation, impacts on human health, including mental health, are assessed to be positive on the basis that the permissive paths would increase active travel and therefore recreation opportunities."	There is no proof in either of these sections that the enjoyment of these areas will be maintained. The applicant has on several occasions stated that they believed that walking on paths with considerably restricted views would not degrade the quality of enjoyment, a view not shared by any local residents. The applicant has also stated in the past that the view over solar panels would be pleasant, again a statement not shared at all by local residents.
Community benefit	There are no new benefits for the local community from the Scheme. The green corridors proposed already exist.	RR-19, RR-61	Refer to Table B-13 for details of the ecological benefits of the Project. Furthermore, the Planning Statement provides an overview of the wider benefits and overall planning balance.	n/a

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Learning facility	Previous plans for the site included an education space to provide a facility for children to learn about the project. This has been removed.	RR-34	The Applicant has not proposed a formal educational facility at any stage and does not consider this to be within the scope of the Scheme.	This is a missed opportunity and again reflects the applicants attitude to the scheme where commercial gains take precedent.
Learning facility	Having an outside learning provision to learn about the Longfield development, the biodiversity and the environment but also that break out space would be useful	RR-34	The Applicant is open to hosting school trips once the Scheme is operational.	n/a
Community benefit	There needs to be investment in schools and support for future generations of students with their sensory needs.	RR-33	The Applicant is discussing the scope of the skills fund with the host authorities. The detail will be secured through a legal agreement that will be submitted into the examination before the close of the examination.	n/a

Table B-3 BESS

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
BESS	The BESS may become permanent.	RR-07	The DCO will require the decommissioning of the Scheme, including the BESS, in accordance with a Decommissioning Environmental Management Plan (DEMP). A Decommissioning Strategy [APP-216] has been prepared as part of the DCO Application. This provides the outline mitigation measures to be adhered to during decommissioning. The DCO includes a requirement to prepare and approve of the DEMP substantially in accordance with the Decommissioning Strategy, and for the approved DEMP to be implemented.	n/a

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BESS	The BESS is unsafe due to the risk of fire and associated toxic fumes and ground contamination.	RR-03, RR-07, RR-10, RR-11, RR-12, RR-17, RR-23, RR-25, RR-26, RR-34, RR-35, RR-37, RR-38, RR-42, RR-44, RR-45, RR-46, RR-47, RR-48, RR-49, RR-52, RR-53, RR-57, RR-58, RR-59, RR-60, RR-61, RR-62, RR-63, RR-64, RR-67, RR-68, RR-69, RR-75, RR-77, RR-20, RR-39, RR-50	<p>A plume assessment has been undertaken with respect to the BESS to assess the likelihood of a fire occurring, and the level of impact on receptors in the unlikely event a fire occurs. The assessment demonstrates that under day-to-day operation there is a low risk of an incident, and in the event of an incident the credible hazards are understood and have been evaluated to demonstrate that the risk to the local population would be very low. The Plume Assessment has been submitted as part of the Application as ES Appendix 16B: BESS Plume Assessment [APP-103]. The Applicant has prepared an Outline Battery Safety Management Plan (BSMP) [APP-210] which details design measures and controls for the BESS to minimise the risk of a fire and includes a framework for responding to an incident. The design of the BESS and its impacts are controlled in several ways.</p> <p>Prior to commencement of construction of the BESS, a Battery Safety Management Plan (in accordance with the Outline Battery Safety Management Plan (BSMP) [APP-210] submitted with the Application) is required to be submitted to the relevant local planning authority and approved, in consultation with the Health and Safety Executive, the Essex County Fire and Rescue Service and the Environment Agency. The Applicant must operate the BESS in accordance with the approved plan.</p> <p>Further, pursuant to a requirement of the DCO, the detailed design of the BESS must be in accordance with the Outline Battery Safety Management Plan (BSMP) [APP-210] (which includes safety requirements for the BESS design) and the Design Principles [APP-206]. The Outline Design Principles contain controls over the BESS, which include: 1) that the chemistry of the BESS will be lithium ion, and 2) that an assessment will be undertaken, based on the detailed design for the BESS, to demonstrate that the risk of fire and impacts from such a fire will be no worse than as assessed in the Plume Assessment submitted with the Application as Appendix 16B of the ES Appendix 16B: BESS Plume Assessment [APP-103]. In this way, the Applicant can confirm that if the BESS constructed is different to that assessed in the plume assessment, its impacts in the event of a fire would be no worse than those assessed in the plume assessment, and therefore the risk to the local population would be very low.</p>	The sources referenced in the safety and management plan seem rather old. The Dangerous Substances and Explosive Atmospheres Regulations is twenty years old. The Operation Guidance document for Cyber Security for Industrial Automation and Control Systems will be six years old by the time building commences. "The BESS will have a robust and validated emergency plan, developed in consultation with Essex F&R." This will include: "Fire-fighting strategy, such as conservative plume and explosion impact assessments, Review of local risk points e.g. adjacent trees or infrastructure requiring possible protection from fire propagation; Review of fire water provisions, Actions to be undertaken in an emergency." Isn't this significant enough that it should be included in the safety & management plan already?
BESS	The fire safety plan included for the BESS is inadequate - further risk assessments must be undertaken.	RR-07, RR-11, RR-12, RR-17, RR-23, RR-25, RR-35, RR-42, RR-44, RR-46, RR-48, RR-52, RR-53, RR-59, RR-67, RR-68, RR-77, RR-20, RR-39, RR-50, RR-37, RR-42, RR-44, RR-46, RR-47, RR-52, RR-53, RR-59, RR-63, RR-20	The Applicant's Outline Battery Safety Management Plan (BSMP) [APP-210] has been developed by competent safety professionals in consultation with the Health and Safety Executive, the Essex County Fire and Rescue Service and the Environment Agency and is robust. Please see the ES Appendix 1C: Statement of Competence [APP-053] . In addition, prior to commencement of construction of the BESS, a Battery Safety Management Plan (in accordance with the Outline Battery Safety Management Plan (BSMP) [APP-210] submitted with the Application) is required to be submitted to the relevant local planning authority and approved, in consultation with the Health and Safety Executive, the Essex County Fire and Rescue Service and the Environment Agency. The Applicant must operate the BESS in accordance with the approved plan.	n/a

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BESS	The BESS is too large.	RR-12, RR-48, RR-67, RR-69, RR-39, RR-50	The BESS included with the Scheme is important to maximising its benefits. There is a clear, direct relationship between the solar generation station and the electricity storage which means that there are substantial benefits to their colocation which will result in an improved contribution to low carbon UK electricity supplies when compared to either coming forward independent of the other. The colocation of those assets enables additional operational capabilities to be accessed for system benefit. Colocation is especially beneficial for National Grid where connections are to the transmission, rather than to the distribution network, because the combined asset is required to meet certain planning, notification and service obligations. Further information of the benefits of collocating the BESS with solar generation is set out in section 12.5 of the Statement of Need [APP- 203] .	n/a
BESS	BESS is a new and untested technology	RR-59	Battery energy storage is a well-established technology within the UK. According to renewableUK's EnergyPulse Energy Storage report (2022), the UK currently has 1.6GW of operational battery storage project capacity.	As outlined by the growing concerns of large lithium based fires around the world, technology used in this scale is not proven as safe yet.
BESS	Large amounts of water would be required to put fire out - no assurance that there is currently enough water storage.	RR-59, RR-68, RR-20	Through consultation with Essex County Fire and Rescue it was requested that fire water be available on site to enable firefighting / cooling by means of monitor jet @ rate of 1800l/min for 1h. As set out in the Battery Safety Management Plan (Outline Battery Safety Management Plan (BSMP) [APP-210]) Section 4.2, and secured in the Design Principles [APP-206] , the BESS layout includes four 110,000 litre tanks to ensure a supply is immediately available for one hour and to have a minimum of four hours of firefighting water.	n/a
BESS	The BESS is too close to Toppinghoehall Wood.	RR-36, RR-41, RR-61	Following the non-statutory consultation, the Applicant confirmed the proposed location of the BESS at the site close to Toppinghoehall Wood. This considered the potential to minimise and mitigate impacts from the BESS. The BESS and Longfield Substation have been sited to benefit from good screening from existing mature vegetation. The Applicant has also assessed impacts on landscape and visual impact, heritage and ecology from the BESS in ES Chapter 7: Cultural Heritage [APP-039] , Chapter 8: Ecology [APP-040] and Chapter 10: Landscape and Visual Amenity [APP-042] .	n/a
BESS	The BESS is too close to residential areas.	RR-42, RR-68, RR-77, RR-20	Within the Order limits the selection of the location of the BESS has been based on a number of factors. The most pertinent factor being the Scheme has been designed to minimise nuisance through maximising the distance between the Scheme and adjacent properties so far as possible. This has the benefit of reducing the visual and noise impact but also minimises any potential impacts on the local population should an event occur. The location of the proposed BESS is around 500m from any properties.	n/a

Table B-4 Bulls Lodge Substation Extension

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Location	Grid connection infrastructure should be located on the solar farm site.	RR-36	The Applicant considered building a new substation connecting directly into the 400kV lines within the site, but this was discounted at the optioneering stage due to significant environmental impacts. Further information is presented in ES Chapter 3: Alternatives and Design Evolution [APP-035] .	n/a

Table B-5 Climate change

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party

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Carbon	The scheme will have a large carbon footprint and a negative climate impact.	RR-07, RR-12, RR-17, RR-30, RR-35, RR-48, RR-56, RR-69,	The Applicant has assessed impacts on climate change through ES Chapter 6: Climate Change [APP-038] . The chapter sets out the direct carbon impact from the construction, operation and decommissioning of the scheme, and also its indirect impacts in terms of reduced emissions relative to the electricity generated "by a fossil-fuelled installation. It is estimated that the Scheme will lead to a saving of 4.4 million tonnes of CO ₂ e over the Scheme lifetime compared to a gas fired CCGT generating facility."	Chapter 6 does not adequately cover the overall carbon factor contribution for the full supply chain, only that of the immediate construction, omitting a substantial part of the total contribution, especially the solar panels themselves, including their removal and recycling when they are end of life. Wind power has a considerably lower carbon footprint. The analysis does also not cover the negative impact by having to import the food that can no longer be produced on the proposed farmland.
		RR-75, RR-20, RR-59, RR-60, RR-20	by a fossil-fuelled installation. It is estimated that the Scheme will lead to a saving of 4.4 million tonnes of CO ₂ e over the Scheme lifetime compared to a gas fired CCGT generating facility.	n/a
Carbon	The Scheme will increase carbon use through the need to import food.	RR-09, RR-11, RR-13, RR-17, RR-27, RR-52, RR-53, RR-56, RR-67, RR-20,	The Applicant has assessed impacts on climate change through ES Chapter 6: Climate Change [APP-038] . This sets out that the Scheme will lead to a saving of 4.4 million tonnes of CO ₂ e over the Scheme lifetime compared to a gas fired CCGT generating facility. Draft NPS EN-3 [BEIS. Draft National Policy Statement for Renewable Energy Infrastructure (EN-3). 2021] includes an anticipated range of 2 to 4 acres for each MW of output generally required for a solar farm along with its associated infrastructure. Using the most conservative value from the range, and assuming that all future solar capacity deployment is large-scale rather than micro-scale (another conservative assumption) implies that a further 80,000 to 300,000 acres of land (approximately 32,000 to 120,000 hectares) would need to be set aside for solar capacity by 2050 in order to meet the FES scenarios. This represents at a maximum, 0.5% of total UK land area, or between 0.2% and 0.9% of UK pastures and non-irrigated arable land [Alasdair Rae. A Land Cover Atlas of the United Kingdom. 2017, Author analysis]. The Applicant considers that UK food security will not be adversely affected by proposals.	This is incorrect, potentially because the source is from 2017, already five years old. If you look at the targets for solar in the energy security paper, you would need between 350/400000 acres of land based on 5000 acres to produce 1GW. From the map produced by the government most solar farms are in England and the majority seem to be on BMV land. That is over 3% of England's arable land and this is significant especially when combined with land loss to food production from bioenergy crops and other land loss issues. If we wish to support our food security, we cannot afford to lose good agricultural land.
Carbon	The importation of solar panels from China will increase the Scheme's carbon footprint.	RR-38, RR-52, RR-53, RR-59, RR-61, RR-20	The Applicant has assessed impacts on climate change through ES Chapter 6: Climate Change [APP-038] . This chapter included an assessment of emissions from transportation of components and materials to the DCO site from their countries of origin. Emissions resulting from the importation of solar panels by sea and land is estimated to contribute 7,654 tonnes CO ₂ e, or 1.2% of the total lifetime emissions of the Scheme.	China is currently the largest supplier of solar panels in the world and also the largest single polluter in the world. They rely heavily on their reliance on coal power power stations and from COP26 committed only to reducing the production of new coal-fired power stations over the next 5 years.
Carbon	The Applicant's sustainability claims are overstated.	RR-38, RR-62,	The application documents provide estimates of the Scheme's carbon impacts across all phases from land use change, embodied carbon in materials, transport of materials, operations and decommissioning. The carbon assessment was carried out on the basis of the best available information in terms of activity data from the proposed development, and the most reliable emissions factors for different materials and activities. Some emissions factors are more robust than others, but this is acknowledged in the application. It is anticipated that emissions data relating to the supply of electrical components will improve in quality over time, and that these emissions will fall as the carbon efficiency of the supply chain improves. ES Chapter 6: Climate Change [APP-038] sets out the direct carbon impact from the construction, operation and decommissioning of the scheme, and also its indirect impacts in terms of reduced emissions relative to the electricity generated by a fossil-fuelled installation. It is estimated that the Scheme will lead to a saving of 4.4 million tonnes of CO ₂ e over the Scheme lifetime compared to a gas fired CCGT generating facility. For further information, please see ES Chapter 6: Climate Change [APP-038].	n/a
Carbon	Solar farms are not carbon- neutral.	RR-44, RR-46, RR-47, RR-49, RR-52, RR-67, RR-71, RR-39, RR-50	The Applicant has assessed impacts on climate change through ES Chapter 6: Climate Change [APP-038] . The chapter assesses both the direct carbon impacts over the lifetime of the scheme but also the indirect impacts in terms of reduced carbon emissions from the operation of the scheme relative to the operation a fossil-fuelled installation generating the same electrical output. It is estimated that the net lifetime impact of the scheme is a saving of 4.4 million tonnes of CO ₂ e over the Scheme lifetime compared to a gas fired CCGT generating facility.	Solar figures for CO ₂ compared with CCGT is not an useful comparison. This scheme has not been compared to wind turbine generation. Wind turbine carbon footprints have been proven to be considerably better than solar since there is no farmland removed.

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Carbon	Farming techniques mean that the land can, at the same time, be used for carbon sequestration by improving the carbon content of the soil.	RR-62	The vast majority of the Order limits will be available for return to agriculture after decommissioning, and the soil resource will have benefitted from a recovery of soil organic matter. An element of agriculture may also be retained over the life of the Solar Farm Site, with low density grazing an option being considered for the management of some of the habitats to be created on the Order limits. Further information is set out in ES Chapter 12: Socio-economics and Land Use [APP- 044] . An Outline Soil Resource Management Plan is provided as an Appendix to the Outline Construction Environmental Management Plan [APP-214] . This sets out principles for how soils will be managed and protected during construction, operation and decommissioning of the Scheme. A detailed soil resource management plan will be prepared prior to the commencement of construction, prior to operation, and prior to decommissioning, as set out by the Requirements of the Draft DCO [APP-011] .	n/a

Table B-6 Compulsory acquisition

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Compulsory acquisition	The potential use of compulsory purchase is threatening and disrespectful to farmers and landowners.	RR-67, RR-39	It is very much the Applicant's intention to reach voluntary agreements with all landowners. The Applicant seeks compulsory acquisition powers in the DCO in order that, should it not be able to reach agreement with landowners, this nationally significant infrastructure project may still be delivered in line with the proposed programme, in order to meet the urgent need for renewable energy in the UK. The approach taken is common amongst energy infrastructure schemes. The Statement of Reasons [APP-014] includes more detail in respect of the powers sought over the Order land. As shown in the Schedule of Negotiations and Powers Sought, the Applicant has taken proactive steps to engage with persons affected by compulsory acquisition powers and negotiations are ongoing to secure the rights needed by agreement.	n/a

Table B-7 Construction

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Working practices	Will there be a construction camp and the hours of work conditioned as Monday-Friday 0730-1700, Saturday 0730- 1300, No work on Sunday?	RR-07	All works will be undertaken within the Order limits. The Outline Construction Environmental Management Plan [APP-214] and ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094] restrict the hours of construction work. Construction working hours on the Solar Farm Site will run from 07:00 to 19:00 Monday to Saturday. Working days will generally be one 12-hour shift. Construction working hours on the Bulls Lodge Substation Extension will run from 07:00 to 19:00 Monday to Saturday with the exception of overhead line works which will run from 07:00 to 19:00 Monday to Sunday. Where on-site works are to be conducted outside the core working hours, they will comply with the limits and controls detailed in the CEMPs, and any other restrictions agreed with the relevant planning authorities.	A start time of 7:00:00 AM is too early especially on a Saturday

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Traffic	Concern about heavy construction traffic in the local area.	RR-09, RR-10, RR-11, RR-22, RR-23, RR-34, RR-44, RR-47, RR-61, RR-67, RR-68, RR-70, RR-77, RR-20, RR-33, RR-39,	A robust construction management plan will be implemented, with due consideration to be given to the management of construction traffic both in terms of the impact of vehicle movements upon the highway network but also in terms of the potential for noise and air pollution impact. The Applicant has set out details of its approach to managing impacts from construction in the Outline Construction Environmental Management Plan [APP-214] and ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094] . The route from Essex Regiment Way via Wheelers Hill and Cranham Road provides the most direct route from higher order roads and will minimise disruption in the nearby villages of Boreham and Hatfield Peverel. Where necessary, Cranham Road and Wheelers Hill will be widened to allow vehicles to pass safely. More information regarding access can be found in ES Chapter 13: Transport and Access [APP-045] .	n/a
Amenity	There will be a significant impact on local communities and infrastructure during the construction phase.	RR-12, RR-17, RR-24, RR-67, RR-68, RR-73, RR-75, RR-77	A robust construction management plan will be implemented, with due consideration to be given to the management of construction traffic both in terms of the impact of vehicle movements upon the highway network but also in terms of the potential for noise and air pollution impact. The Applicant has set out details of its approach to managing impacts from construction in the Outline Construction Environmental Management Plan [APP-214] and ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094] . "The route from Essex Regiment Way via Wheelers Hill and Cranham Road provides the most direct route from higher order roads and will minimise disruption in the nearby villages of Boreham and Hatfield Peverel. Where necessary, Cranham Road and Wheeler's Hill will be widened to allow vehicles to pass safely. More information regarding access can be found in ES Chapter 13: Transport and Access [APP-045]."	n/a
Ecology	Construction will impact negatively on ecosystems.	RR-23	The Applicant has prepared environmental management plans setting out how impacts from the Scheme on the environment will be managed and mitigated during the construction, operation and decommissioning of the Scheme. The Applicant has set out details of its approach to managing impacts from construction in the Outline Construction Environmental Management Plan [APP-214] and ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094] included in the DCO application.	n/a
Cabling	Construction of cable route near Waltham Road should be managed so that there is no impact to access or use of the allotments.	RR-06	There may be some temporary traffic control measures used on Waltham Road to facilitate the crossing of the road by construction vehicles, detailed in the Framework Construction Traffic Management Plan [APP-094] . These temporary traffic control measures will not prevent the allotments from being accessed.	n/a

Table B-8 Consultation

Matter	Summary of points raised	PINS reference	Applicant's response

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Publicity	Publicity of the consultation was inadequate. Consultation information was either not received or received late.	RR-30, RR-53	<p>The Applicant publicised the consultation widely, as set out in Chapter 6 of the Consultation Report [APP-018]. In summary, publicity measures included:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Writing to all addresses within consultation zone 1 set out in the Statement of Community Consultation at the start of the consultation period. <input type="checkbox"/> Writing to elected representatives, parish councils, and community groups with details of the consultation at the start of the consultation period. <input type="checkbox"/> Advertising the consultation in the following newspapers circulating in the consultation zone: the Braintree and Witham Times, Chelmsford and Mid Essex Times, Essex Chronicle. <input type="checkbox"/> Sending local broadcasters a press release for the scheme. <input type="checkbox"/> Publishing details of the consultation online at the consultation website. <input type="checkbox"/> Advertising the consultation online. <p>In deciding whether to accept the Application for Examination, the Secretary of State must only accept the Application if it considers the Applicant has complied with all pre-application consultation requirements, including the statutory requirement to have regard to the consultation responses received. The Secretary of State must also have regard to adequacy of consultation responses received from Local Authorities. Given the Application was accepted by the Secretary of State, it can be assumed the Applicant has satisfied all consultation requirements and consulted adequately. The Applicant would also note that all Interested Parties now have an opportunity to be involved in the Examination and to make written submissions to the Examining Authority about matters they are concerned about, and/or to appear at hearings."</p>	<p>The publicity was severely flawed in 2 main areas:</p> <ol style="list-style-type: none"> 1) Many local residents, including some within the scheme itself, did not receive the required paperwork. The mailing lists used were not adequate so this exercise was incomplete. 2) The applicant had access to an email subscriber list but admitted that they had not been used. When new dates were added for local meetings, there was no publicity at all, the applicant admitting that they added dates only to their own website. No attempt was made to inform local residents of these new dates, it was left to local residents and local campaign groups to advertise these new events. Since travel was severely hampered by the COVID pandemic at the time, these extra dates were essential to local residents. 3) Writing to Parish Councils cannot be categorised as "publicising widely", as it is the applicant's responsibility to ensure households have all the information required, not the Council's. 4) We live in Zone 1 of the Zones of consultation "Any person or group likely to be impacted" and yet we were left off the distribution list and had to request multiple times to be added.
Regard had to comments	The Applicant has not been sincere in its approach to consultation and has preconceived responses to issues raised.	RR-59	This is not the case. The Applicant has set out the regard had to consultation responses through the Consultation Report [APP-018] , particularly in Appendices J-1 – J-5 [APP-028] .	n/a
Community liaison	The Applicant should set out clearly how it will communicate with the community during construction and operations.	RR-33	The Applicant will establish a community liaison group (CLG) that will enable local community representatives to have a formal channel for monitoring and influencing developments at the site. This will be secured as a requirement secured by the DCO, if granted.	n/a
Maintenance	The Applicant should be held to clear 'standards of service' for the maintenance of the Scheme once operational.	RR-33	The Outline Operational Environmental Management Plan [APP-215] outlines how maintenance of the site and panels will be undertaken.	

Table B-9 Cultural heritage

Matter	Summary of points raised	PINS reference	Applicant's response	

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Heritage	The Scheme will have a negative impact on the heritage of the local area.	RR-48, RR-55, RR-59, RR-72.	In developing the design, care has been taken to avoid, reduce and mitigate impacts on the heritage assets and their settings. This has included excluding areas of archaeological remains and other heritage assets been entirely excluded from the Order Limits. All impacts to designated and non-designated heritage assets within the study areas, including impacts from Site traffic, have been assessed in ES Chapter 7: Cultural Heritage [APP-039] . The effect on heritage assets is mainly not significant, with the exception being a moderate adverse, significant effect identified for Ringers Farmhouse during both construction and operation. This receptor is not near the road and the effect is due to changes to the rural setting and part of the view from the farmhouse to the Scheme rather than trip movements. The Harm Assessment (Appendix E of the Planning Statement [APP-204] discusses that the impact is not one of Substantial Harm. The effects on heritage assets are reversible following decommissioning of the Scheme at the end of its life.	n/a
Archaeology	The Scheme will have a negative impact on archaeology.	RR-55.	In developing the design, care has been taken to avoid, reduce and mitigate impacts on the heritage assets and their settings. Further design mitigation is now set out in ES Chapter 7: Cultural Heritage [APP-039] . Two areas of significant (medium or high value) archaeological activity have been removed from the Order limits. The areas of archaeological remains comprise of a single multi-occupation prehistoric and/or Roman settlement associated with medieval, post-medieval and modern features (A70) and a prehistoric settlement (A127). Both assets have been entirely removed from the Order Limits. Asset A127 was subject to an archaeological trial trench evaluation (Site D).	n/a

Table B-10 Cumulative impacts

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Other projects	Two other DCOs taking place; A12 widening and East Anglia Green will cause added disruption to the area and further loss of agricultural land Will developers co-ordinate on this issue?	RR-07, RR-09, RR-16, RR-27, RR-38, RR-53, RR-67, RR-68, RR-77, RR-20	The Applicant had engaged with National Highways regarding the A12 widening scheme to understand the potential for cumulative impacts as well as synergies between the projects. As indicated in the ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094] the Construction Traffic Management Plan will include details of how the projects will liaise on an ongoing basis during the construction phase. National Grid's East Anglia Green project was publicised after the acceptance of this project as a DCO application. The Applicant will engage with National Grid through its pre-application consultation and engagement to understand potential impacts from East Anglia Green, and how any combined impacts can be managed.	n/a

Table B-11 Decommissioning

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Restoration of land	There are insufficient guarantees that agricultural land will be restored as part of decommissioning.	RR-08, RR-26, RR-38, RR-60, RR-20, RR-39, RR-50	Solar farms are temporary and typically have an operational lifespan of approximately 40 years. Once Longfield Solar Farm reaches the end of its lifespan, infrastructure on the Solar Farm Site will be removed and the Solar Farm Site returned to the landowner. Post-decommissioning, it is expected that the landowner would return the Solar Farm Site to arable use, although it is assumed that established habitats such as hedgerows and woodland would be retained. A Decommissioning Strategy [APP-216] has been prepared as part of the DCO Application. This provides the outline mitigation measures to be adhered to during decommissioning. The DCO includes a requirement to prepare and approve of the DEMP substantially in accordance with the Decommissioning Strategy, and for the approved DEMP to be implemented.	n/a

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Decommissioning strategy	Plans for decommissioning are inadequate.	RR-19, RR-38, RR-41, RR-57, RR-59, RR-20		
Restoration of land	The land will be categorised as brownfield following decommissioning and may be used for development.	RR-19, RR-51, RR-59	The land will not be classified as brownfield following decommissioning. Solar farms are temporary and typically have an operational lifespan of approximately 40 years. Once Longfield Solar Farm reaches the end of its lifespan, infrastructure on the Solar Farm Site will be removed and the Solar Farm Site returned to the landowner. Post-decommissioning, it is expected that the landowner would return the Solar Farm Site to arable use, although it is assumed that established habitats such as hedgerows and woodland would be retained. For the land to be used for other development following decommissioning of the Scheme, development consent or planning permission would be required.	n/a
Methods	There will be a major disruption during decommissioning.	RR-24	A Decommissioning Strategy [APP-216] has been prepared as part of the DCO application. This provides the outline mitigation measures to be adhered to during decommissioning. The DCO includes a requirement to prepare and approve of the DEMP substantially in accordance with the Decommissioning Strategy, and for the approved DEMP to be implemented.	n/a
Waste management	The recycling of the BESS at the end of the Scheme's operating life could cause environmental damage.	RR-32, RR-59, RR-20	A Decommissioning Strategy [APP-216] has been prepared as part of the DCO application. The impacts of decommissioning have been assessed in each of the technical chapters of the EIA, presented in the ES. The impacts during decommissioning will be similar in nature and scale to construction, albeit slightly less and quicker in duration. Consequently, there will be some significant effects during this phase of the Scheme, which is explained in the technical chapters of the ES. The Decommissioning Strategy explains that the recycling would be carried out in accordance with regulations and guidance at the time of decommissioning. A Decommissioning Resource Management Plan will be prepared prior to decommissioning and agreed with the host councils to manage recycling and disposal.	n/a
Waste management	Further detail is required regarding waste disposal and recycling.	RR-38, RR-52, RR-53, RR-57, RR-60, RR-20, RR-33		
Restoration of land	More land should be made publicly accessible following decommissioning than is currently the case.	RR-41	Once Longfield Solar Farm reaches the end of its lifespan, infrastructure on the Solar Farm Site will be removed and the Solar Farm Site returned to the landowner. Post-decommissioning, it is expected that the landowner would return the Solar Farm Site to arable use, although it is assumed that established habitats such as hedgerows and woodland would be retained. The use of the land following decommissioning is not within the Applicant's control.	n/a
Restoration of land	There is no assurance that soil quality will be the same as before the Scheme.	RR-07	An Outline Soils Resource Management Plan is provided as an appendix to the Outline Construction Environmental Management Plan [APP-214] . This sets out principles for how soils will be managed and protected during construction, operation and decommissioning of the Scheme. A detailed soils resource management plan will be prepared prior to the commencement of construction,	n/a

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Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Waste management	BESS cannot be recycled and will end up contaminating soil in landfill.	RR-59	prior to operation, and prior to decommissioning, as set out by the Requirements of the Draft DCO [APP-011] . The Outline Operational Environmental Management Plan [APP-215] outlines how maintenance of the site and panels will be undertaken. This includes increasing recyclability by segregating waste to be reused and recycled where reasonably practicable and operating the Scheme in such a way as to minimise the creation of waste and maximise the use of alternative materials with lower embodied carbon such as locally sourced products and materials with a higher recycled content. The DCO will require the decommissioning of the Scheme in accordance with a Decommissioning Environmental Management Plan (DEMP). A Decommissioning Strategy [APP- 216] has been prepared as part of the DCO application. This provides the outline mitigation measures to be adhered to during decommissioning. The DCO includes a requirement to prepare and approve of the DEMP substantially in accordance with the Decommissioning Strategy, and for the approved DEMP to be implemented. The Decommissioning Strategy sets out that decommissioning will involve the removal of all solar PV array infrastructure including modules, mounting structures, cabling inverters and transformers, for recycling or disposal in accordance with good practice and market conditions at that time.	

Table B-12 Design

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Size	The scheme is too large.	RR-07, RR-09, RR-14, RR-15, RR-25, RR-27, RR-36, RR-41, RR-48, RR-52, RR-53, RR-57, RR-58, RR-60, RR-63, RR-69, RR-75, R-74	Chapter 11 of the Statement of Need [APP-203] provides an analysis of the economic viability of large-scale solar generation as a future contributor to a low- carbon Great Britain electricity supply system in comparison to alternate technologies; and an analysis of why the Scheme will be most beneficial to the achievement of government's aims if it is consented to the scale proposed. Solar power reduces the market price of electricity by displacing more expensive forms of generation from the cost stack. This delivers benefits for electricity consumers. Due to technological advances, power generated by solar plants is already at or below grid parity cost in Great Britain. Solar power is economically attractive in Great Britain against many other forms of conventional and renewable generation. Size remains important and maximising the generating capacity of schemes improves their economic efficiency, so bringing power to market at the lowest cost possible. Larger solar schemes deliver more quickly and at a lower unit cost than multiple independent schemes which make up the same total capacity, bringing forward carbon reduction and economic benefits in line with government policy. The Scheme proposes a substantial infrastructure asset, which if consented will deliver large amounts of cheap, low-carbon electricity both during and beyond the critical 2020s timeframe. Maximising the capacity of generation in the resource- rich, accessible and technically deliverable proposed location, represents a significant and economically rational step forwards in the fight against the global climate emergency. The Applicant has assessed the impacts of delivering a scheme of this scale through the Environmental Statement.	n/a
Materials	The Scheme makes excessive use of metal, glass, fencing, floodlights.	RR-42, RR-69	The Scheme is designed as efficiently as practicable – for example there is no permanent lighting, with only motion activated lighting being proposed at relevant locations on the site, as secured in the Design Principles [APP-206] . In addition, the deer fencing which is proposed to surround the site is one of the most efficient forms of enclosure (in terms of material use) available on the market. The project has considered the embodied carbon of materials required for the solar and battery infrastructure in ES Chapter 6: Climate Change [APP-038] .	n/a

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Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
BESS design	Containers should be used to shield the visual impact of infrastructure. These should be painted in neutral colours and not bright primary colours.	RR-33	Components of the BESS will be enclosed by a metal container which will be white or light grey or green in colour, as set out in the Design Principles [APP- 206] . A photomontage (ES Figure 10-13: Type 3 Visualisations 4 of 5 [APP- 183]) has been prepared from Viewpoint 50, looking north looks towards the BESS. The BESS has been modelled to be 4.5m high, therefore representing the 'worst case' scenario. A new belt of woodland is proposed to be planted to screen views of the BESS. This is planned to be planted in advance of construction in order to maximise growth and therefore provide effective mitigation across <i>The Landscape and Visual Impact Assessment (ES Appendix 10E: Visual</i>	n/a
Cabling	All cable routes should be underground.	RR-41	The Applicant has sought to maximise the amount of cabling that will be underground; and the grid connection would be underground and there will be no overhead pylons. However, there will be some cabling (typically secured on cable trays) that would be above ground.	n/a
Layout	No PV panels should be placed in the field to the north of White House Farm and considerable effort should be made to lessen the impact from PV panels to the south east.	RR-28	The protection of views from White House Farm has informed the design. With reference to ES Figure 10-12: Outline Landscape Masterplan [APP-179] , no PV panels are proposed in the western part of the field north of White House Farm. This is to retain a clear and open view from the rear of the property through an existing gap in the vegetation on field's southern boundary. A hedgerow will be planted along a historic field boundary, running north to south across the field, to screen views of proposed PV panels in the eastern part of the field. A new belt of woodland and a new hedgerow will be planted to screen views of PV panels proposed to the south east of the property, connecting Scarlett's Wood to the wider hedgerow network.	

Table B-13 Ecology

Matter	Summary of points raised	PINS reference	Applicant's response.	
Habitats	The Scheme will result in a loss of wildlife habitats.	RR-01, RR-09, RR-11, RR-18, RR-27, RR-35, RR-42, RR-44, RR-46, RR-56, RR-59, RR-64, RR-67, RR-77, RR-39, RR-50.	The Applicant is committed to operating the Scheme in the long-term and would take responsibility for aspects of management such as this. Long-term habitat management treatment has been embedded in the Scheme design and further within the Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] . The OLEMP sets out the key measures required to avoid, mitigate and compensate for impacts and effects to terrestrial biodiversity and landscape from the construction and operation of the Scheme. The Applicant will deliver an overall net gain of 79% habitat units for biodiversity and 20% of hedgerow habitats as set out in the Biodiversity Net Gain Report [APP-200] .	There is no precedential proof that a BNG figure of this value can be achieved. There are no impartial studies that have not been funded by bodies with solar interest, so these figures are purely based on desktop studies that cannot scaled to this size.
Nature	The Scheme will have a negative impact on flora and fauna.	RR-10, RR-12, RR-17, RR-19, RR-30, RR-59, RR-61, RR-39, RR-18, RR-22,		
Biodiversity	The Scheme will result in a net loss in biodiversity.	RR-12, RR-22, RR-23, RR-34, RR-42, RR-44, RR-46, RR-47, RR-49, RR-52, RR-58, RR-62, RR-63, RR-64, RR-77, RR-39, RR-50.	The Applicant will deliver an overall net gain of 79% habitat units for biodiversity and 20% of hedgerow habitats as set out in the Biodiversity Net Gain Report [APP-200] .	There is no precedential proof that a BNG figure of this value can be achieved. There are no impartial studies that have not been funded by bodies with solar interest, so these figures are purely based on desktop studies that simply cannot scaled to this size.
Biodiversity	The Applicant's claims of generating a net gain in biodiversity are exaggerated.	RR-12, RR-59, RR-15, RR-17, RR-19, RR-52, RR-61, RR-67, RR-39, RR-50.	The Applicant will deliver an overall net gain of 79% habitat units for biodiversity and 20% of hedgerow habitats as set out in the Biodiversity Net Gain Report [APP-200] . The Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] , includes new woodland, scrub, grassland and hedge habitats to buffer and enhance connectivity across the site. The OLEMP also includes the provision for monitoring to assess how successful the biodiversity planting and management has been.	There is no precedential proof that a BNG figure of this value can be achieved. There are no impartial studies that have not been funded by bodies with solar interest, so these figures are purely based on desktop studies that simply cannot scaled to this size.

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Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Nature	The proposed wildlife corridors are not sufficient for the roaming wildlife.	RR-14, RR-30	Specific provision has been made for wildlife movement within the Scheme. Badger gates will be used in the fence design to allow passage of badger and other mammals such as small deer, rabbits and hare. Large species of deer will be able to move through the Order limits along verges, hedges and tracks. See Section 8.8 of ES Chapter 8: Ecology [APP-040] and refer to the Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] for further detail.	These measures are totally inadequate. The fencing proposed to be installed around the solar fields will prevent deer including muntjacs and other large animals from moving around freely. There is an abundance of these animals in the proposed area and the suggestion that a few access corridors will be sufficient is poor.
Fencing	The buffers of fencing to woodland areas should be 100 metres not 25 metres to preserve woodland habitats	RR-14	The layout of the Scheme has been designed to minimise the loss of, and avoid significant impacts on, existing landscape features. With reference to the Works Plans [APP-007] this includes minimum offsets of: i. 15m from ancient woodland; ii. 15m from other woodland; iii. 15m from hedgerows; iv. 15m from individual trees; v. 10m from existing ponds vi. 8m from banks of watercourses, to avoid requirements for Land Drainage Consent or an Environmental Permit (LLFA / EA governance respectively). Please refer to the Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] for further detail.	This response is not addressing the concern. It merely points out what is stated in the applicant's own plans, which they created. It does not provide evidence to explain why 15m was considered a sufficient distance from woodland, baring in mind this converts to only 20 steps.
Habitats	The River Ter, a SSSI, has many valuable woodland areas	RR-15, RR-64	The River Ter SSSI is adjacent to the Order limits and a short undesignated section of the River Ter bisects the north of the Order limits. The SSSI is designated for geological importance, but the river itself does support aquatic macroinvertebrates, notable/protected fish and Otter. A full assessment has been undertaken of the impact on any designated sites, including SSSIs within the 5km of the Scheme. The impact assessment, detailed in ES Chapter 8: Ecology [APP-040] and has been undertaken in accordance with best practice guidance for Ecological Impact Assessment (EclA), issued by the CIEEM (the CIEEM guidelines) entitled 'Guidelines for Ecological Impact Assessment in the UK and Ireland Terrestrial, Freshwater, Coastal and Marine'. This assessment identified potential impacts, but with the implementation of embedded mitigation measures during construction, operation and decommissioning concluded no potential for significant effects.	n/a
Biodiversity	Boreham Road, Chelmsford has biodiversity and environmental value	RR-16.	The Applicant recognises this and will seek to enhance the ecological value of land within the Order limits. The Applicant will deliver an overall net gain of 79% habitat units for biodiversity and 20% of hedgerow habitats as set out in the Biodiversity Net Gain Report [APP-200] . The Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] , includes new woodland, scrub, grassland and hedge habitats to buffer and enhance connectivity across the site. The OLEMP also includes the provision for monitoring to assess how successful the biodiversity planting and management has been.	n/a
Biodiversity	There is no proposed mechanism for accountability on biodiversity and wildlife issues, with no independent verification	RR-19.	Ecological monitoring will be implemented across the site. This will include as a minimum fixed-point quadrat for plant species and a measure of soil health/carbon. This has been secured in the Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] which must be submitted to and approved by the relevant planning authorities. The Applicant will establish a community liaison group (CLG) that will enable local community representatives to have a formal channel for monitoring and influencing developments at the site.	There have been no surveys carried out for the current occupation & movement of deer, muntjacs or similar animals
Mitigation	Proposed mitigation of ecological impacts is too weak.	RR-19, RR-42, RR-48, RR-39, RR-50.	The Applicant is committed to operating the Scheme in the long-term and would take responsibility for aspects of management such as this. Long-term habitat management treatment has been embedded in the Scheme design and further within the Outline Landscape and Ecology Management Plan OLEMP [APP- 217] . The OLEMP sets out the key measures required to avoid, mitigate and compensate for impacts and effects to terrestrial biodiversity and landscape from the construction and operation of the Scheme. The Applicant will deliver an overall net gain of 79% habitat units for biodiversity and 20% of hedgerow habitats as set out in the Biodiversity Net Gain Report [APP-200].	n/a

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Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Wildlife	High fencing will impact wildlife negatively.	RR-19, RR-38, RR-52.	The plans allow movement of deer and other mammals across the site along public rights of way, habitat buffer strips and through fenced fields via sufficient gaps for smaller animals under boundary fencing. There may be conservation grazing by sheep in future and they will be securely fenced in where grazing is undertaken.	n/a
Wildlife	Nesting birds, notably Skylark, Golden Plover, Lapwing, Yellowhammer and Linnet, will be negatively impacted by the solar panels.	RR-22, RR-42, RR-44, RR-46, RR-47, RR-49, RR-59, RR-64, RR-39, RR-50.	As described in ES Chapter 8: Ecology [APP-040] , no significant effects are predicted to nesting birds as a result of the Scheme. Mitigation measures and habitat enhancement for nesting birds are provided in the Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] and Outline Construction Environmental Management Plan [APP-214] . A range of new habitats will replace the current arable land, including bare ground, grassland, 'cover crops', hedgerow, tree and scrub planting to increase the biodiversity of the Scheme. These habitats will provide landscape scale benefits for wildlife through increased habitat provision and connectivity and will be of value to a wide range of fauna, including farmland birds such as Skylark and Yellowhammer. This includes the provision of 83 hectares of new habitats managed for biodiversity (see Outline Landscape and Ecology Management Plan (OLEMP) [APP-217]).	n/a
Habitats	The Scheme will lead to a potential loss of red/amber list birds, Great Crested Newts and bats.	RR-23, RR-39, RR-50.	As described in ES Chapter 8: Ecology [APP-040] , no significant effects are predicted to birds, great crested newts or bats as a result of the Scheme. Mitigation measures and habitat enhancement for these species are provided in the Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] and Outline Construction Environmental Management Plan [APP-214] . A range of new habitats will replace the current arable land, including bare ground, grassland, 'cover crops', hedgerow, tree and scrub planting to increase the biodiversity of the Scheme. These habitats will provide landscape scale benefits for wildlife through increased habitat provision and connectivity and will be of value to a wide range of fauna, including farmland birds such as Skylark and Yellowhammer. This includes the provision of 83 hectares of new habitats managed for biodiversity (see Outline Landscape and Ecology Management Plan (OLEMP) [APP-217]).	n/a
Habitats	Toppinghoehall Wood is mixed ancient/newer woodland and rich habitat for invertebrates, reptiles (slow worms), bats, owls, hobby, red kites and buzzards	RR-23	Toppinghoehall Wood Local Wildlife Site (LoWS) is located adjacent to the Scheme and buffered by at least 15 m based on government standing advice on ancient woodland protected zones. As such there will be no habitat loss or fragmentation of Toppinghoehall Wood and, with the implementation of standard environmental protection measures, there will be no direct or indirect impacts to Toppinghoehall Wood during construction, operation and, or decommissioning. As described in the ES Chapter 8: Ecology [APP-040] , no significant effects are predicted to this woodland or any other LoWSs as a result of the Scheme.	n/a
Maintenance	Confirmation needs to be provided of who will manage the wildflower meadows.	RR-30, RR-59	The Outline Operational Environmental Management Plan (OEMP) [APP-215] outlines how the Scheme will be managed through the operational phase. The works would be undertaken by a contractor appointed by the developer.	n/a
Wildlife	The Scheme will negatively impact on badgers.	RR-38, RR-39, RR-50	ES Appendix 8J: Badger Survey Report (Confidential) [APP-073] concludes that no impacts to these badger setts are predicted as they are within buffer areas of the Scheme (i.e. hedgerows, woodlands). However, a re-survey will be undertaken prior to construction in case badger setts are found; and if necessary any works undertaken in accordance with a licence agreed with Natural England.	n/a
Habitats	Important natural wildlife land corridors would be disrupted	RR-44, RR-46, RR-47, RR-49, RR-52, RR-57, RR-39, RR-50	Specific provision has been made for wildlife movement within the Scheme. Badger gates will be used in the fence design to allow passage of badger and other mammals such as small deer, rabbits and hare. Large species of deer will be able to move through the Order limits along verges, hedges and tracks. See Section 8.8 of ES Chapter 8: Ecology [APP-040] , and refer to the Outline Landscape and Ecology Management Plan [APP-217] for further detail.	n/a

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Habitats	Ancient Woodland with mature oak trees will be affected.	RR-59, RR-74, RR-39, RR-50	A buffer of at least 15m has been applied to all existing woodlands and ancient woodlands. This buffer has been integrated into the Scheme's Outline Landscape Masterplan to protect trees located on, and adjacent to, the Order limits. Please see ES Figure 10-12: Outline Landscape Masterplan [APP-179] and Section 10.7 in ES Chapter 10: Landscape and Visual Amenity [APP-042] .	This response is not addressing the concern. It merely points out what is stated in the applicant's own plans, which they created. It does not provide evidence to explain why 15m was considered a sufficient distance from woodland, bearing in mind this converts to only 20 steps.
Maintenance	A regime of appropriate financial penalties must be in place to ensure compliance with rigorous environmental assessment	RR-59	Ecological monitoring will be implemented across the site. This will include as a minimum fixed-point quadrat for plant species and a measure of soil health/carbon. This has been secured in the Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] which is required to be submitted to and approved by the relevant local planning authority. The DCO requirement provides that the approved Landscape and Ecology Management Plan must be implemented as approved, and that requirement is enforceable against the operator of the Scheme. It is not considered that financial penalties are appropriate. The Applicant will establish a community liaison group (CLG) that will enable local community representatives to have a formal channel for monitoring and influencing developments at the site.	
Birds	The Scheme will have a negative impact on migratory birds	RR-59, RR-64, RR-39, RR-50	No significant effects are expected on wintering birds. For further information please see ES Appendix 8G: Wintering Bird Survey [APP-071] and the Habitat Regulations Assessment (HRA) [APP-202] .	
Biodiversity	No detailed guidance has been made regarding long-term land management other than designating small fragmented areas designated "biodiversity enhancement"	RR-59	The Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] , includes new woodland, scrub, grassland and hedge habitats to buffer and enhance connectivity across the site. The OLEMP also includes the provision for monitoring to assess how successful the biodiversity planting, as well as provision for ongoing management.	
Habitats	Breeding population of birds, animals and insects will be displaced and lost forever.	RR-64, RR-39, RR-50	As part of the mitigation strategy, suitable areas of grassland/set-aside will be created and managed within the Order limits for ground nesting birds, including Skylark, but would also be utilised by other ecology. This includes ecologically enhanced set aside land of approximately 83 hectares outside the solar PV Array area. Please refer to ES Appendix 8H: Breeding Birds Survey Report [APP-072] and section 8.8 of ES Chapter 8: Ecology [APP-040] .	
Wildlife	Two studies show solar farms to negatively impact bats	RR-67, RR-59	On the basis that no ancient woodland loss and minimal temporary hedgerow loss with buffers from the Scheme, and no permanent lighting, it is assessed that there will not be any significant impacts to roosting/commuting or foraging bats. The change from arable to grassland habitats, new tree, hedge and scrub planting, new and restored ponds will enhance the habitats for bats. Long-term monitoring will be undertaken of the bat populations as detailed in the OLEMP [APP-217] . Further detail is presented in ES Chapter 8: Ecology [APP-040] .	
Habitats	The existing site is of significant value with its woodland areas, ponds, proximity of valuable sites and the range of species identified in the surveys.	RR-67, RR-39, RR-50	The Applicant recognises this and will seek to enhance the ecological value of land within the Order limits. The Applicant will deliver an overall net gain of 79% habitat units for biodiversity and 20% of hedgerow habitats as set out in the Biodiversity Net Gain Report [APP-200] . The Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] , includes new woodland, scrub, grassland and hedge habitats to buffer and enhance connectivity across the site. The OLEMP also includes the provision for monitoring to assess how successful the biodiversity planting and management has been.	

Table B-17 Glint and glare

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
General	General concern about glint and glare.	RR-24, RR-30, RR-20	ES Appendix 10G: Glint and Glare Assessment [APP-087] analyses the effects of glint and glare and their impact on local receptors in detail and there is predicted to be low impacts at seven residential receptors, whilst the remaining ground-based receptors are expected to have no impacts once mitigation measures have been considered. Impacts upon aviation receptors are predicted to be none. Therefore overall impacts are negligible.	

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Animals	Glint and glare will negatively affect wildlife.	RR-72, RR-20	ES Appendix 10G: Glint and Glare Assessment [APP-087] analyses the effects of glint and glare on people rather than ecology. Through discussions with statutory bodies through the Statement of Common Ground process we will identify whether they consider additional work is required in respect of ecology; and if necessary, provide supplementary information.	

Table B-18 Human health

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Air quality	Pollution will impact on health (asthmatic people).	RR-70	Air quality impacts have been assessed in full and have been detailed in ES Chapter 14: Air Quality [APP-046] . The potential impact of the Scheme on local air quality has been determined at sensitive (human and ecological) receptors identified in the vicinity of the Order limits and has been assessed as not significant. This comprises sensitive receptors within 350m of the Order limits, within 50m of roads expected to be affected by the construction phase traffic, and up to 500m from the site access points.	
Mental health	Loss of open space will negatively affect residents' mental health.	RR-28, RR-48, RR-67, RR-77	Primary mitigation measures are embedded within the Scheme, as set out in the respective chapters, to reduce operational effects (such as noise, air quality and landscape) which in turn will mitigate the effects on the local community and existing facilities from a human health perspective. The health and well-being assessment is presented in Table 154 to Table 158 in ES Chapter 15: Human Health [APP-047] . The assessment comprises an assessment of impacts during construction, operation and decommissioning including on access to work and training, active travel, and social cohesion. Consideration is given to the potential for impacts on mental health through assessing an overall outcome in respect of each of these. The assessment does not identify any significant negative impacts on the amenity of residents from air quality, noise or neighbourhood amenity where embedded design mitigation measures and further mitigation measures are followed.	The tables referred to in table 15-4 to 15-8 fail to address the major visual impact that the scheme will have, therefore although some paths and diversions are allowed for, the report does not mention that the area will not be anymore fit for enjoyments, with existing vistas replaced by either fields of panels, or high hedgerows preventing any acceptable line of sites for enjoyment. This is the fundamental reason for visitors to this location and not covered in these tables.
Mental health	Noise from the Scheme will have a negative impact on residents' mental health.	RR-39, RR-50	Primary mitigation measures are embedded within the Scheme, as set out in the respective chapters, to reduce operational effects (such as noise, air quality and landscape) which in turn will mitigate the effects on the local community and existing facilities from a human health perspective. The health and well-being assessment is presented in Table 154 to Table 158 in ES Chapter 15: Human Health [APP-047] . The assessment comprises an assessment of impacts during construction, operation and decommissioning including on access to work and training, active travel, and social cohesion. Consideration is given to the potential for impacts on mental health through assessing an overall outcome in respect of each of these. The assessment does not identify any significant negative impacts on the amenity of residents from air quality, noise or neighbourhood amenity where embedded design mitigation measures and further mitigation measures are followed.	

Table B-19 Land use

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party

Written Representation to REP1a-002 (Applicant's Responses to Relevant Representations)

Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Agricultural land	The Scheme will lead to an unacceptable loss of high- grade and valuable agricultural land.	RR-01, RR-02, RR-07, RR-08, RR-09, RR-10, RR-11, RR-12, RR-13, RR-15, RR-17, RR-18, RR-19, RR-22, RR-23, RR-25, RR-26, RR-27, RR-29, RR-30, RR-35, RR-36, RR-37, RR-38, RR-40, RR-42, RR-44 , RR-45, RR-46, RR-47, RR-48, RR-49, RR-52, RR-53, RR-55, RR-56, RR-57, RR-58, RR-59, RR-60, RR-61, RR-62, RR-63, RR-64, RR-67, RR-68, RR-69, RR-70, RR-72, RR-73, RR-74, RR-75, RR-76,	The use of agricultural land for the Scheme is justified by the urgent need for renewable energy generation. The Scheme is urgently needed in order to generate renewable energy to contribute to meeting the Government's legally binding commitment for the country to reach net-zero by 2050, and to address the cause of climate change. This is set out further in the Statement of Need [APP- 203] . Whilst the Scheme will result in best and most versatile agricultural land not being available for agricultural use over its lifetime, the non-intrusive and reversible nature of solar development means that there will be very little permanent loss of agricultural land. The soil will have undergone recovery through less intensive farming such as being left fallow, or sheep grazing and is expected to be the same or better quality as it is currently. Section 12.8 of ES Chapter 12: Socio-economics and Land Use [APP-044] concludes this is not significant in environmental impact assessment terms. Consideration of alternatives is presented in ES Chapter 3: Alternatives and Design Evolution [APP-035] . In summary, the vast majority of land within the area of search is of similar Agricultural Land Classification (ALC) to the Order limits. The Order limits comprises approximately: 60% Grade 3b, 22% Grade 3a, 12% Grade 2 and 6% non-agricultural or unknown. There are no alternative sites considered by the Applicant that are clearly of a lower non-BMV ALC grade than the Order limits (whilst also meeting other criteria of the Applicant, as set out in Chapter 3 of the ES) within a reasonable distance of Bulls Lodge Substation, for which the Applicant has obtained a grid connection agreement.	A study by the UK Centre of Ecology and Hydrology suggested a loss of two million acres between 1990 and 2025, and a study by the University of Cambridge 2014 suggested a land shortfall to farming of two million hectares (4.8 million acres) by 2030. Every projection shows that loss of productive land and new environmental schemes, while fundamentally a good thing, will reduce food productivity. A scheme such as this would contribute to this growing issue.
Agricultural land	Concern that loss of productive farmland will challenge UK's ability to be self-sufficient in terms of food production, particularly in the context of Russia's invasion of Ukraine.	RR-07, RR-08, RR-09, RR-11, RR-12, RR-13, RR-17, RR-18, RR-19, RR-22, RR-23, RR-25, RR-26, RR-29, RR-37, RR-42, RR-44, RR-46, RR-47, RR-48, RR-49, RR-52, RR-53, RR-55, RR-57, RR-59, RR-60, RR-62, RR-63, RR-64, RR-67, RR-68, RR-69, RR-70, RR-72, RR-75, RR-76, RR-77, RR-20, RR-39, RR-50	The use of agricultural land for the Scheme is justified by the urgent need for renewable energy generation. The Scheme is urgently needed in order to generate renewable energy to contribute to meeting the Government's legally binding commitment for the country to reach net-zero by 2050, and to address the cause of climate change. This is set out further in the Statement of Need [APP- 203] . Whilst the Scheme will result in best and most versatile agricultural land not being available for agricultural use over its lifetime, the non-intrusive and reversible nature of solar development means that there will be very little permanent loss of agricultural land. The soil will have undergone recovery through less intensive farming such as being left fallow, or sheep grazing and is expected to be the same or better quality as it is currently. Section 12.8 of ES Chapter 12: Socio-economics and Land Use [APP-044] concludes this is not significant in environmental impact assessment terms.	As above, this is not an adequate justification whilst other solutions such as wind power is available.

Table B-20 LVIA

Written Representation to REP1a-002 (Applicant's Responses to Relevant Representations)

Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Mitigation	The Applicant has not delivered visual mitigation proposed during discussions with the Interested Party.	RR-05	The mitigation was consulted on and agreed prior to submission of the application. However, the Applicant will re-engage with the relevant Party.	
Landscape character	The Scheme is industrialising and will result in a loss of countryside/green space.	RR-07, RR-12, RR-14, RR-15, RR-17, RR-18, RR-19, RR-22, RR-23, RR-28, RR-30, RR-35, RR-38, RR-44, RR-47, RR-49, RR-51, RR-52, RR-53, RR-55, RR-57, RR-59, RR-60, RR-62, RR-65, RR-66, RR-67, RR-68, RR-69, RR-71, RR-76, RR-20, RR-33, RR-39, RR-50	The Landscape and Visual Impact Assessment in ES Chapter 10: Landscape and Visual Amenity [APP-042] establishes that, with the exception of major adverse effects experienced by people walking on PRoW 213_19 and PRoW 113_25 within the Order limits because of close range views of the proposed PV Arrays in the immediate foreground, no significant visual effects are expected once mitigation planting has established. Proposed planting is shown on ES Figure 10-12: Outline Landscape Masterplan [APP-179] . The Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] , includes new woodland, scrub, grassland and hedge habitats to buffer and enhance connectivity across the site.	
Landscape character	The Scheme will have a negative impact on local landscapes.	RR-07, RR-10, RR-12, RR-14, RR-15, RR-17, RR-19, RR-22, RR-23, RR-24, RR-28, RR-30, RR-35, RR-38, RR-44, RR-47, RR-48, RR-49, RR-52, RR-53, RR-55, RR-59, RR-60, RR-62, RR-63, RR-65, RR-66, RR-67, RR-68, RR-69, RR-72, RR-74, RR-39, RR-50	The Landscape and Visual Impact Assessment in Chapter 10: Landscape and Visual Amenity of the Environmental Statement [REF-] establishes that, with the exception of major adverse effects experienced by people walking on PRoW 213_19 and PRoW 113_25 within the Order limits because of close range views of the proposed PV Arrays in the immediate foreground, no significant visual effects are expected once mitigation planting has established. Proposed planting is shown on ES Figure 10-12: Outline Landscape Masterplan [APP-179] . The Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] , includes new woodland, scrub, grassland and hedge habitats to buffer and enhance connectivity across the site.	As noted by the applicant, there would indeed be " major adverse effects experienced by people walking on PRoW 213_19 and PRoW 113_25 within the Order limits because of close range views of the proposed PV Arrays in the immediate foreground ". This route is a significant part of the scheme and is not acceptable.
Mitigation	Proposed planting to mitigate visual impacts will take many years to develop.	RR-22, RR-30, RR-52, RR-53, RR-68, RR-20,	This is recognised. Phase 2 of the BESS is intended to be undertaken five years after the Scheme becomes operational, to allow sufficient time for screening implanted to the south east of the BESS to mature and provide sufficient screening – this will provide a 'bridge' between Toppinghoehall and Lost Woods "until planting has had sufficient time to mature to a point that it provides sufficient screening. Further information is presented in ES Chapter 10: Landscape and Visual Amenity [APP-042]	The scheme relies heavily on planting to mature before visual impact will be mitigated, so the scheme will be an eyesore for the first 5 years.

Written Representation to REP1a-002 (Applicant's Responses to Relevant Representations)

Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Mitigation	The proposed hedgerow buffer zone to protect views is not sufficient.	RR-24, RR-44, RR-47, RR-48, RR-52, RR-53, RR-59, RR-39, RR-50, RR-19	The Landscape and Visual Impact Assessment in ES Chapter 10: Landscape and Visual Amenity [APP-042] establishes that, with the exception of major adverse effects experienced by people walking on PRow 213_19 and PRow 113_25 within the Order limits because of close range views of the proposed PV Arrays in the immediate foreground, no significant visual effects are expected once mitigation planting has established. The Applicant considers the mitigation included is sufficient.	
Assessment	A Residential Visual Amenity Assessment (RVAA) should have been submitted with the application.	RR-24	The design of the Scheme has been reviewed and amended to avoid or mitigate potential significant adverse effects on residents. As such a RVAA is not required. This was agreed via email, dated 15 October 2021, by the host authorities' adviser on this matter. Further information is presented in ES Chapter 10: Landscape and Visual Amenity [APP-042] .	
Landscape character	The Applicant should provide a fully integrated account of the historic development of the landscape and its interrelationship with the natural environment to inform the long-term management of the landscape.	RR-55	The Applicant has comprehensively examined designated heritage assets within the vicinity of the Order limits, including scheduled monuments, listed buildings, registered parks and gardens, and conservation areas. Non-designated heritage assets, including archaeological remains, historic buildings, and the historic landscape, have also been considered. An assessment of the historical and archaeological background of the Site can be found in ES Appendix 7A: Heritage Desk-Based Assessment [APP-057] . This includes consideration of the well-recorded and relatively recent enclosure of the landscape within the Order Limits as presented by the Essex County Council Historic Landscape Characterisation. Great efforts have been made to retain historic landscape features such as field boundaries, trackways, and relationships between cultural heritage assets in order to preserve our ability to view and understand the historic landscape. ES Chapter 10: Landscape and Visual Amenity [APP-042] establishes that no significant visual effects are expected once mitigation planting has established. Proposed planting is shown on ES Figure 10-12: Outline Landscape Masterplan [APP- 179] .	
Visual impact	Fencing and CCTV will have a negative visual impact.	RR-60, RR-72	Proposed fencing has been designed to minimise its visual prominence. The fence will be a deer fence or other wire mesh security fencing on timber poles approximately 2.5m in height. Fencing will be set back or screened from sensitive receptors. Further information on the landscape impacts of fencing is presented in ES Chapter 10: Landscape and Visual Amenity [APP-042] .	
Mitigation	The Applicant should provide reassurance that there will be enough staff to maintain planting for visual screening.	RR-33	The Applicant will establish the appropriate roles and responsibilities for site staff set out in the Outline Construction Environmental Management Plan [APP- 214] . An Environmental Clerk of Works (ECoW) will be responsible for ensuring construction environmental mitigation measures are correctly implemented, monitored and maintained. These measures will include, but not be limited to, vegetation clearance, species identification and exclusion (protected or otherwise). The ECoW's role will cover activities that have the potential to impact biodiversity, for example by advising on methods and techniques to prevent or minimise light spill and the delivery of Toolbox Talks prior to the start of works that could potentially affect habitats and species. The contractor appointed to construct the Scheme will be responsible for establishing, managing and monitoring the implementation and establishment of landscape and ecological mitigation within the five-year establishment aftercare period. The Applicant will inspect and report on the success of establishment during this period. The long-term biodiversity monitoring and management requirements are set out the Outline Landscape and Ecology Management Plan (OLEMP) [APP-217] .	

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Visual impact	There will be a negative visual impact from lighting.	RR-48, RR-59	<p>The visual impact of lighting has been assessed against Campaign to Protect Rural England (CPRE) Dark Skies mapping. The methodology followed is set out in ES Appendix 10B: LVIA Methodology [APP-082]. Landscape and visual mitigation has been described in Section 10.7 of ES Chapter 10: Landscape and Visual Amenity [APP-042] and is shown on ES Figure 10-12: Outline Landscape Masterplan [APP-179]. The proposed lighting has been designed to avoid and minimise the potential for adverse landscape and visual effects.</p> <p>An assessment of the proposed lighting, including any temporary lighting during construction, on ecology has been undertaken in ES Figure 10-12: Outline Landscape Masterplan [APP-179]. Throughout the Scheme, the use of motion detection security lighting to avoid permanent lighting will be utilised and the inward distribution of light will avoid light spill on to existing boundary features and impacts on ecology.</p>	Current movement sensors are known to not be able to reliably differentiate between large animals such as deer and humans, both with similar body volumes and heat signatures, so these floodlights would likely be coming on regularly.

Table B-22 Need

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Efficiency	Solar is a highly inefficient means of energy generation.	RR-07, RR-12, RR-17, RR-35, RR-41, RR-42, RR-44, RR-47, RR-49, RR-52, RR-53, RR-56, RR-59, RR-60, RR-63, RR-65, RR-66, RR-71, RR-72, RR-75, RR-77, RR-20, RR-39, RR-50	<p>The Applicant has set out the case for the need for the Scheme in detail in the Statement of Need [APP-203]. This also considers the efficiency of solar energy generation. Solar power reduces the market price of electricity by displacing more expensive forms of generation from the cost stack. This delivers benefits for electricity consumers. Due to technological advances, power generated by solar plants is already at or below grid parity cost in Great Britain. Solar power is economically attractive in Great Britain compared to many other forms of conventional and renewable generation. Larger solar schemes deliver more quickly and at a lower unit cost than multiple independent schemes that make up the same total capacity, bringing forward carbon reduction and economic benefits in line with government policy. The Scheme proposes a substantial infrastructure asset, which if consented will deliver large amounts of cheap, low-carbon electricity both during and beyond the critical 2020s timeframe. Maximising the capacity of generation in the resource-rich, accessible and technically deliverable proposed location, represents a significant and economically rational step forwards in the fight against the global climate emergency.</p>	Solar is not the best option for sustainable energy and the urgency behind the Statement of Need does not make our food security issues null and void. It is not a suitable trade off.
Technology	There are other, more reliable and less disruptive ways of producing energy in the UK (hydro, tidal, wind, nuclear and fracking).	RR-12, RR-26, RR-41, RR-42, RR-44, RR-48, RR-49, RR-59, RR-65, RR-72, RR-20, RR-07, RR-12, RR-17, RR-44, RR-48, RR-49, RR-52, RR-53, RR-59, RR-62, RR-63, RR-72, RR-75, RR-20, RR-39, RR-50	<p>Chapter 11 of the Statement of Need [APP-203] provides an analysis of the economic viability of large-scale solar generation as a future contributor to a low-carbon Great Britain electricity supply system in comparison to alternate technologies; and an analysis of why the Scheme will be most beneficial to the achievement of government's aims if it is consented to the scale proposed. Section 8.4 in the Statement of Need [APP-203] explains that without the development of additional solar projects, other measures will be required to fill the gap which solar will fill, effectively making it much harder for the UK to achieve Net Zero.</p>	Chapter 11 only provides details of the economical benefits of solar, whilst other chapters refer often equally to both offshore wind, onshore wind and solar. It does not discuss why solar would be the best solution above other means for a renewable future.

Written Representation to REP1a-002 (Applicant's Responses to Relevant Representations)

Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Climate change	The Scheme is needed to combat climate change.	RR-54	The Applicant agrees and has set out the benefits of the form of electricity generation that will be delivered at Longfield Solar Farm in the Statement of Need [APP-203] . The Scheme is a substantial infrastructure asset, capable of delivering large amounts of low-carbon electricity. The Scheme, along with other solar schemes, is of critical importance on the path to Net Zero, especially given "the context of the Climate Change Committee's recent identification of the need for urgent action to increase the pace of decarbonisation in the electricity sector in Great Britain, and government's adoption of their recommendations for the Sixth Carbon Budget (2033 – 2037). The Applicant has assessed impacts on climate change through ES Chapter 6: Climate Change [APP-038]. This sets out that the Scheme will lead to a saving of 4.4 million tonnes of CO2e over the Scheme lifetime compared to a gas fired CCGT generating facility.	Solar farms specifically are NOT needed, other renewable energy solutions are, that do not remove farmland.
Technology	Solar will be a redundant technology and replaced as more efficient technologies are developed.	RR-56, RR-65, RR-66	The Applicant has set out the benefits of the form of electricity generation that will be delivered by the Scheme in the Statement of Need [APP-203] . In short, the Scheme is a substantial infrastructure asset, capable of delivering large amounts of low-carbon electricity. The Scheme, along with other solar schemes, is of critical importance on the path to Net Zero, especially given the context of the Climate Change Committee's recent identification of the need for urgent action to increase the pace of decarbonisation in the Great Britain electricity sector, and government's adoption of their recommendations for the Sixth Carbon Budget (2033 – 2037). The Scheme will also deliver large amounts of low-carbon power ahead of other potential technologies, for example those that have longer construction timeframes or have potentially not yet been proven at scale. The meaningful and timely contributions offered by the Scheme to UK decarbonisation and security of supply, while helping lower bills for consumers throughout its operational life, will be critical on the path to Net Zero.	
Contribution to UK energy need	It is estimated that a fully operational Longfield Solar Scheme may contribute 0.05% of the UK's electricity.	RR-59	The Applicant has set out the benefits of the form of electricity generation that will be delivered by the Scheme in the Statement of Need [APP-203] . This also sets out in greater detail the benefits of delivering the Scheme at the scale and location proposed.	
Contribution to UK energy need	The electricity will be sold back to National Grid for profit during times of high demand	RR-59, RR-69, RR-20	The BESS is designed, as its main and primary function, to provide peak generation electric energy time-shifting and grid balancing services. It will do this by capturing electricity generated from the PV Panels and storing it in the batteries in order to dispatch to the electricity grid when it is most required. As a supplementary and secondary service, it may also import surplus energy from the National Grid and provide other ancillary and energy time-shifting services to help National Grid Electricity Transmission (NGET) manage the increasing penetration of (variable) renewable generation on the transmission network.	
Contribution to UK energy need	The Scheme is principally motivated by desire for profit.	RR-08, RR-38, RR-48, RR-56, RR-63	The Applicant is bringing forward Longfield Solar Farm to meet an urgent national need for new, renewable, sources of electricity. Further information on this is provided within the Statement of Need [APP-203] .	The applicant aims to profit from the UK's need for urgent sustainable energy at the expense of our food security.
Contribution to local energy need	The Scheme should have a community ownership model or supply energy free to those affected.	RR-30, RR-33	The Applicant has already committed to providing a Community Benefit Fund (CBF). Matters relating to wider community benefits are being discussed with the host authorities and will be secured through a legal agreement submitted prior to the close of the examination.	

Local residents, particularly those directly affected by adjacency to the scheme will not receive any benefits. This has been confirmed by the applicant who states there is currently no mechanism for this so it cannot be achieved.

Matter	Summary of points raised	PINS reference	Applicant's response

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
BESS	Concern about the effects of noise from BESS	RR-07, RR-23	The Applicant has set out its assessment of potential noise impacts in ES Chapter 11: Noise and Vibration of the Environmental Statement [APP-043] . The design of the Scheme has incorporated measures such as distancing of inverters away from sensitive receptors and locating the BESS compound area away from large concentrations of receptors, as well as towards the A12 where existing ambient noise levels are higher (such that noise emissions from the BESS are less impactful). As set out in the Design Principles [APP-206] inverters within 250m of residential dwellings will be treated with acoustic barriers to achieve a minimum 10dB(A) sound reduction, or an inverter selected with sound power levels at least 10dB lower than 96dB, which has been applied to inverters in the EIA. A requirement will be imposed through the DCO in relation to operational noise. It will require "(1) No part of numbered works 1, 2 or 3 may commence until an operational noise assessment containing details of how the design of that numbered work has incorporated mitigation to ensure the operational noise rating levels as set out in the environmental statement are to be complied with for that part has been submitted to and approved by the relevant planning authority for that part or, where the part falls within the administrative areas of both Braintree District Council and Chelmsford City Council, both relevant planning authorities. (2) The design as described in the operational noise assessment must be implemented as approved."	
Construction noise	Concern over the effects of noise and vibration during construction process	RR-10, RR-24, RR-28, RR-34, RR-44, RR-46, RR-47, RR-49, RR-59, RR-67, RR-70, RR-39, RR-50,	Impacts from noise during construction are assessed in ES Chapter 11: Noise and Vibration of the Environmental Statement [APP-043] . Measures to manage construction noise are set out in the Outline Construction Environmental Management Plan [APP-214] . No significant residual adverse effects due to construction/decommissioning or operational phase noise and vibration have been identified. Construction noise limits have been identified for nearby noise sensitive receptors during evening and night-time periods, as well as Sunday daytime. Sensitive receptors have been identified and noise monitoring locations have been determined through desktop study during the scoping process and confirmed during site visits. The levels will be controlled through the Construction Environmental Management Plan, secured through a requirement imposed on the DCO.	
General	Concern about noise generated by the Scheme in general	RR-24, RR-35, RR-44, RR-45, RR-48, RR-49, RR-20, RR-39, RR-50,	ES Chapter 11: Noise and Vibration of the Environmental Statement [APP-043] identifies that there would be no significant residual adverse effects due to construction/decommissioning, or operational phase noise and vibration. Residual effects are listed in Table 11-17 (Scheme construction and decommissioning) and Table 11-18 (Scheme operation) in the chapter. The design of the Scheme has incorporated measures such as distancing of inverters away from sensitive receptors and locating the BESS compound in an area away from large concentrations of receptors as well as towards the A12 where existing ambient noise levels are higher (such that noise emissions from the BESS are less impactful). As set out in the Design Principles [APP-206] inverters within 250m of residential dwellings will be treated with acoustic barriers to achieve a minimum 10dB(A) sound reduction, or an inverter selected with sound power levels at least 10dB lower than 96dB, which has been applied to inverters in the EIA. Refer to the two responses above for details as to how construction and operational noise will be controlled.	
Assessment	The ES underestimates the impact of noise	RR-39, RR-50,	A full independent assessment of environmental impacts of the Scheme has been undertaken by suitably qualified technical consultants, using the methods set out in ES Chapter 5: Environmental Impact Assessment Methodology [APP-037] . The Applicant has set out an assessment of potential noise impacts in ES Chapter 11: Noise and Vibration of the Environmental Statement [APP-043] .	

Table B-24 Other

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Procurement	The PV panels are likely to be manufactured in China in an environment involving human rights violations.	RR-38, RR-56	EDF Renewables have policies relating to sustainability and people, including matters relating to modern day slavery.	In 2020, 69% of the worlds solar panels were made in China, currently the largest single polluter. Where will EDF source their panels from?

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Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Procurement	The PV panels used should be manufactured in the UK	RR-41	The objective of the Skills and Employment Plan (proposed to be secured by a legal agreement) is to, where economically and practically feasible, procure goods and services from local contractors, subcontractors and suppliers to support the employment of the local community. The Applicant will also make a skills and education contribution. This will assist and encourage local people to access apprenticeships and training. Further information is set out in ES Chapter 12: Socio-economics and Land Use [APP-044] .	PV panels are not made in UK, so this would not be possible.

Table B-25 Socio-economics

Matter	Summary of points raised	PINS reference	Applicant's response	
Lack of job creation	The Scheme will not generate more employment, locally or further afield	RR-19, RR-41, RR-48, RR-59	An assessment of the number of jobs created during the construction phase is provided in ES Chapter 12: Socio-economics and Land Use [APP-044] . It is expected that an average of 380 jobs will be created during the construction period. Of these, 171 jobs per annum are expected to be taken-up by residents within the study area. During the operational phase, 8 full time staff would be employed on the site. A Local Skills and Employment Plan will be prepared prior to the commencement of construction. This will set out measures that the Applicant will implement to advertise and promote employment opportunities associated with the Scheme in construction and operation locally. The Applicant will also make a skills and education contribution. This will assist and encourage local people to access apprenticeships and training. Further information is set out in ES Chapter 12: Socio-economics and Land Use [APP-044] .	The scheme at Eveley Solar park in Hampshire built in 2016, also developed by PS Renewables, had little contribution to the local economy, having discussed this issue direct with their local Parish Councillors and ex Chairs, so there is no evidence to suggest this will occur.
Local businesses	Scheme will negatively impact the local economy, including local businesses	RR-38, RR-68	An assessment of the number of jobs created during the construction phase is provided in ES Chapter 12: Socio-economics and Land Use [APP-044] . It is expected that an average of 380 jobs will be created during the construction period. During the operational phase, 8 full time staff would be employed on the site. The expected operational employment at the Scheme will be equivalent to the current amount of employment on the agricultural land at the Scheme, meaning there will be net no change in the amount of employment. This information is based on estimates informed by the Applicant's prior experience of similar schemes, and details provided by the current landowner. In addition, a local Skills and Employment Plan will be prepared prior to the commencement of construction. This will set out measures that the Applicant will implement in order to advertise and promote employment opportunities associated with the Scheme in construction and operation locally. The Applicant will also make a skills and education contribution. This will assist and encourage local people to access apprenticeships and training.	
Lack of job creation	The Scheme will not generate more local employment	RR-59	An assessment of the number of jobs created during the construction phase is provided in ES Chapter 12: Socio-economics and Land Use [APP-044] . It is expected that an average of 380 jobs will be created during the construction period. Of these, 171 jobs per annum are expected to be taken-up by residents within the study area. During the operational phase, 8 full time staff would be employed on the site. A Local Skills and Employment Plan will be prepared prior to the commencement of construction. This will set out measures that the Applicant will implement to advertise and promote employment opportunities associated with the Scheme in construction and operation locally. The Applicant will also make a skills and education contribution. This will assist and encourage local people to access apprenticeships and training. Further information is set out in ES Chapter 12: Socio-economics and Land Use [APP-044] .	

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Local businesses	The Scheme should be delivered by local companies or by using local labour	RR-41, RR-48, RR-59	An assessment of the number of jobs created during the construction phase is provided in ES Chapter 12: Socio-economics and Land Use [APP-044] . It is expected that an average of 380 jobs will be created during the construction period. Of these, 171 jobs per annum are expected to be taken-up by residents within the study area. During the operational phase, 8 full time staff would be employed on the site. A local Skills and Employment Plan will be prepared prior to the commencement of construction. This will set out measures that the Applicant will implement to advertise and promote employment opportunities associated with the Scheme in construction and operation locally. The Applicant will also make a skills and education contribution. This will assist and encourage local people to access apprenticeships and training. Further information is set out in ES Chapter 12: Socio-economics and Land Use [APP-044] .	
Local businesses	The Scheme is likely to be delivered by contractors from outside the local area	RR-59	It is not possible to ascertain the exact number of jobs that would be taken up by residents in any local authority or statistical area, given that take-up of jobs will be dependent on individual skill levels and suitability. Overall, the Scheme will support, on average, 380 total jobs per annum during the construction period. Of these, 171 jobs per annum are expected to be taken-up by residents within the study area. A Local Skills and Employment Plan will be prepared prior to the commencement of construction. This will set out measures that the Applicant will implement to advertise and promote employment opportunities associated with the Scheme in construction and operation locally. Further information is set out in ES Chapter 12: Socio-economics and Land Use [APP-044] .	
Employment	Rural unemployment will increase as a result of the Scheme	RR-63, RR-67	An assessment of the number of jobs created during the construction phase is provided in ES Chapter 12: Socio-economics and Land Use [APP-044] . It is expected that an average of 380 jobs will be created during the construction period. During the operational phase, 8 full time staff would be employed on the site. The expected operational employment at the Scheme will be equivalent to the current amount of employment on the agricultural land at the Scheme, meaning there will be net no change in the amount of employment. This information is based on estimates informed by the Applicant's prior experience of similar schemes, and details provided by the current landowner. In addition, a Local Skills and Employment Plan will be prepared prior to the commencement of construction. This will set out measures that the Applicant will implement in order to advertise and promote employment opportunities associated with the Scheme in construction and operation locally. The Applicant will also make a skills and education contribution. This will assist and encourage local people to access apprenticeships and training.	

Table B-26 Transport and access

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Safety	Construction traffic is unsafe on small local roads	RR-09, RR-12, RR-17, RR-19, RR-22, RR-23, RR-27, RR-31, RR-48, RR-49, RR-61, RR-63, RR-67	An appropriate routing and access strategy has been identified which seeks to limit the usage of Protected Lanes and local roads through Boreham and Hatfield Peverel to the south. HGVs will be routed to/from the west via the A130, Wheelers Hill, and Cranham Road, with supporting highway improvements (carriageway widening) where necessary. There will be the potential to utilise the Radial Distributor Road following its completion prior to the construction phase. For further information, please see Sections 13.5 and 13.9 in ES Chapter 13: Transport and Access [APP-045] . A review of the existing highway collision record has been carried out as part of ES Appendix 13A: Transport Assessment [APP-093] which reviews data over a 3 to 5-year period within the study area. This review reveals that the Scheme is not expected to exacerbate the existing collision record of the highway network.	
Traffic	The Scheme will increase traffic on smaller village/local roads	RR-09, RR-23, RR-27, RR-30, RR-31, RR-35, RR-36, RR-44, RR-46, RR-47, RR-48, RR-67, RR-70, RR-33	An appropriate routing and access strategy has been identified which seeks to limit the usage of Protected Lanes and local roads through Boreham and Hatfield Peverel to the south. HGVs will be routed to/from the west via the A130, Wheelers Hill, and Cranham Road, with supporting highway improvements (carriageway widening) where necessary. There will be the potential to utilise the Radial Distributor Road following its completion prior to the construction phase. For further information, please see Sections 13.5 and 13.9 in ES Chapter 13: Transport and Access [APP-045] .	

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Safety	Roads should be enlarged for safety	RR-09, RR-27	Due to the nature of the Scheme, consideration has been given to a number of locations within the surrounding highway network that could potentially be impacted. The Applicant intends to restrict HGV movements to certain routes (i.e. via the A130, Wheelers Hill and Cranham Road to the west) to prevent construction vehicles from using the B1137 Main Road and passing through Hatfield Peverel and/or Boreham. Where necessary, Cranham Road and Wheelers Hill will be widened to allow vehicles to pass safely. More information regarding access can be found in ES Chapter 13: Transport and Access [APP- 045] .	
Routing	The Applicant has not considered the importance of limiting traffic flow on Boreham Road	RR-16	The Applicant is not expecting to use Boreham Road for access to the site. The Solar Farm Site is expected to have a single point of access with traffic being routed through the site to different areas during the phases of construction. The route from Essex Regiment Way via Wheelers Hill and Cranham Road provides the most direct route from higher order roads and will minimise disruption in the nearby villages of Boreham and Hatfield Peverel. Where necessary, Cranham Road and Wheelers Hill will be widened to allow vehicles to pass safely. More information regarding access can be found in ES Chapter 13: Transport and Access [APP-045] .	
Traffic	The Scheme will exacerbate existing congestion	RR-12, RR-17, RR-31	The peak construction year is anticipated to be 2025, based on an assumed commencement of construction in Q1 2024 and that the Scheme is built out over a 24-month period. This is a likely worst case from a traffic generation point of view because it compresses the trip numbers into a shorter duration and represents the greatest impact on the highway network. A lengthened construction phase would be expected to result in lower traffic impacts; therefore, the likely worst-case scenario has been assessed within ES Chapter 13: Transport and Access [APP-045] . There are not expected to be any significant effects as a result of the scheme based on this worst-case assessment within the ES, including in terms of driver delay or congestion. Moreover, as part of the consultation process, a number of principles have been agreed with ECC Highways, including the proposed site access location, visibility splays, crossing points on Noakes Lane and the approach for surveys and supporting assessment work. In addition, it has been agreed that the routing of HGVs should take place to/from the west via the RDR, A130 Essex Regiment Way, Wheelers Hill, Cranham Road and Waltham Road to prevent these larger vehicles from passing through the villages of Hatfield Peverel and Boreham (e.g. along the B1137 Main Road). Further details, including drawings showing the locations of access points, visibility splays and swept paths are held within ES Appendix 13A: Transport Assessment [APP-093] .	
Roads	Roads are not wide enough for HGVs	RR-22, RR-67	Due to the nature of the Scheme, consideration has been given to a number of locations within the surrounding highway network that could potentially be impacted. The Applicant intends to restrict HGV movements to certain routes (i.e. via the A130, Wheelers Hill and Cranham Road to the west) to prevent construction vehicles from using the B1137 Main Road and passing through Hatfield Peverel and/or Boreham. Where necessary, Cranham Road and Wheelers Hill will be widened to allow vehicles to pass safely. More information regarding access can be found in ES Chapter 13: Transport and Access [APP- 045] .	
Management	A construction management/traffic management plan must be submitted with restrictions on deliveries all construction traffic and site workers outside peak hours	RR-31	HGVs will only travel to/from the site between 09:00-17:00, avoiding the traditional network peak hours of 08:00-09:00 and 17:00-18:00. No construction HGVs will arrive before 09:00 or depart after 17:00. Only construction workers (cars/ vans/ shuttle services) will travel to/from the site before 09:00 and after 17:00. The Applicant has set out details of its approach to managing impacts from construction traffic in ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094] . A requirement within the DCO will secure the submission, approval and implementation of the CTMP. In addition, the Applicant intends to create a Community Liaison Group that will enable local community representatives to have a formal channel for monitoring and influencing developments at the site. This will provide a structured framework to exchange views and better understand and resolve issues, where it is appropriate to do so.	

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Mitigation	All HGVs accessing the site should be euro5 and above. No contractors, suppliers or deliveries to site can utilise the village of Terling to reach the site. There should be restricted areas that are not necessary to use. When spotted traveling through the village and reported to the construction compound site manager (email and telephone number made available to all with links to Terling) the offending company has a 5-strike policy and if reached will be fined first and if happens again will lose their contract. This applies to all size vehicles (car, van and truck).	RR-33	HGVs will utilise the Strategic Road Network (SRN) to travel to/from the site, including the A12(T) to the south and north and the A130 and A131 to the north. These larger vehicles would then follow the agreed routing strategy, via Wheelers Hill, Cranham Road, and Waltham Road, to access the site. Therefore, HGVs will not pass through the village of Terling to access the site. ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094] includes details of the agreed routing strategy for HGVs (agreed with ECC Highways) and how this routing would be managed and enforced. The Applicant is satisfied with committing its contractors to Euro5 emissions standards and above for HGVs accessing the site. The Applicant will explore whether AILs can meet this standard, however these are specialised vehicles are not typically categorised as HGVs; therefore, they may not be capable of being subject to the same emissions controls. The number of AILs accessing the site will be low and infrequent. This commitment will be incorporated into an update of the Outline CEMP, as appropriate.	
Transport and access	Access for emergency vehicles would be hampered by the road system.	RR-47, RR-49, RR-68	The Applicant has engaged with Essex Fire and Rescue, as set out in Table 8-1. The Applicant is also engaging the East of England Ambulance Service to progress a Statement of Common Ground. Prior to commencement of construction of the BESS, a Battery Safety Management Plan (in accordance with the Outline Battery Safety Management Plan (BSMP) [APP-210] submitted with the Application) is required to be submitted to the relevant local planning authority for approval, in consultation with the Health and Safety Executive, the Essex County Fire and Rescue Service and the Environment Agency. Should it be necessary, access for emergency vehicles will be achievable via several alternative existing access points (e.g. should the proposed site access for the Solar Farm Site become blocked or unavailable). This includes existing access points on Waltham Road, Boreham Road to the west of the Solar Farm Site and Terling Hall Road to the east. Bulls Lodge Substation has two accesses and therefore should there be any issues with one of the proposed access points then it will be possible to utilise the alternative access point to gain access.	

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
PROW	Concern about potential loss of bridleways and walking paths.	RR-01, RR-11, RR-12, RR-17, RR-61, RR-01, RR-28, RR-30, RR-57, RR-59, RR-63, RR-39, RR-50,	<p>There will be no loss of bridleways and walking paths as a result of the Scheme. PROW will be carefully managed during the construction phase through ES Appendix 13C: Public Rights of Way Management Plan [APP-095]. The safety of walkers, cyclists and horse riders is also addressed through ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094]. This includes measures to physically segregate existing PROW from proposed construction routes, as well as having controlled crossing points (with gates and banksmen) to safely accommodate pedestrians and cyclists. No PROW will be permanently closed or diverted as a result of the Scheme, and the minimum legal PROW widths will continue to be met or bettered in all instances. In line with the information provided in ES Chapter 13: Transport and Access [APP-045] the PROW and permissive paths will be a minimum 1.5m wide for footpaths and 3.0m for bridleways, with at least 5m either side of the centreline of the PROW or permissive path that will remain undeveloped outside of the solar PV fence line.</p> <p>This will ensure a 10m wide passageway will be maintained on all routes. All pathways, including temporary diversions and the establishment of a new permissive route, will be maintained. Several meetings have been held with ECC Highways (including PROW officers) to agree the proposed strategy for managing PROW during the construction and decommissioning phases of the Scheme, as set out in Table 8-1 of the Consultation Report [APP-018]. This includes measures to physically segregate existing PROW from proposed construction routes, as well as having controlled crossing points (with gates and banksmen) to safely accommodate pedestrians and cyclists. No PROW will be permanently closed or diverted as a result of the Scheme. ES Appendix 13C: Public Rights of Way Management Plan [APP-095] illustrates the proposed strategy which supports ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094]. See also ES Figure 13-4: Public Rights of Way Management Plan (Construction Phase) [APP-196].</p>	
Routing	There are a number of protected lanes in and around the site. Non-use of these needs to be conditioned during construction and operation.	RR-07	The proposed access strategy for the Solar Farm Site consists of a single-point of access on Waltham Road and an agreed routing strategy for large construction vehicles to access the Solar Farm Site from the west via A130, Wheelers Hill and Cranham Road (with supporting improvements to the carriageway). The single access point and routing strategy has been advised (and therefore agreed) with ECC highways and has been identified as a way to limit the usage of Protected Lanes (i.e. Boreham Road) and local roads through Boreham and Hatfield Peverel to the south (i.e. Waltham Road to the South and Main Road). Further information on construction vehicle routing is presented in the ES Appendix 13B: Framework Construction Traffic Management Plan [APP-094] .	
PROW	Greater public access around to land around Boreham should be included within the Scheme.	RR-41, RR-55	It is proposed that PROW in the vicinity of the Scheme remain available and convenient for public use. PROW will be carefully managed during the construction phase through ES Appendix 13C: Public Rights of Way Management Plan [APP-095] . Additional permissive routes will be provided for pedestrians and cyclists during the operational phase to facilitate connections across the Order limits, as well as with National Cycle Route 50 and Essex Way. Further information is provided in Section 13.7 of ES Chapter 13: Transport and Access [APP-045] .	

Table B-27 Water resources

Matter	Summary of points raised	PINS reference	Applicant's response	Written Representation from Interested Party
Water supply	Access to water supplied through pipes running under the Solar Farm site should be maintained	RR-30	All third-party assets within the Order limits will be protected through appropriate protective provisions, which will set out methods to physically protect the assets through construction and operation. The protective provisions in Schedule 15, Part 1 of the draft DCO [APP-011] for the Protection of Electricity, Gas, Water and Sewerage Undertakers, have been amended slightly from the standard form to include other mains, pipelines or cables not ordinarily falling within the definition of "apparatus" and the owner of such mains, pipelines and cables as a "utility undertaker". This is to capture and protect the water supply to tenants that is privately provided within the Order Limits. Other water pipelines owned and operated by utility undertakers are also protected by Part 1 of Schedule 15.	

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Table B-1 Alternatives and site selection

Matter	Summary of points raised	PINS' reference	Applicant's response	Written Representation from Interested Party
Contamination	Concern about run-off into drinking water supplies	RR-72	<p>Drainage strategies have been produced indicating how surface water run-off from the various parts of the Scheme will be managed (see ES Appendix 9C: Longfield Solar Farm SuDS Strategy [APP-079] and ES Appendix 9D: Bulls Lodge Substation Extension Drainage Strategy [APP-080]). This includes management of any firefighting water that might be required within the BESS in case of emergency. The drainage strategies are designed to control surface water run-off from the site for up to the 1 in 100-year event, including a 20% allowance for climate change, reducing flood risk off site. Two new surface water drainage outfalls would be required by the Scheme. The first is to an unnamed ditch (a tributary of the River Ter), and the second to Boreham Brook. In both cases water is treated using sustainable drainage systems (SuDS) prior to discharge to ensure no adverse impacts on water quality. The rate of discharge is also controlled to prevent any increase in flood risk or morphological impacts to the channel such as scour. An assessment of water quality impacts from the scheme is provided in ES Chapter 9: Water Environment [APP-041] and ES Appendix 9B: Water Framework Directive (WFD) Assessment [APP-078]. No adverse impacts have been identified with regard to water quality or flood risk.</p>	