ExQ	Question	Applicant's Response	7000 Acres Response
Q1.1.1	Recent Government publications and consultations. Can IPs comment on the implications for their cases of the most recent Government publications including: • The Department for Energy Security and Net Zero Policy Paper Powering Up Britain, and the complementary papers Powering UP Britain: Energy Security Plan and Powering UP Britain: Net Zero Growth Plan; and • The Department for Energy Security and Net Zero consultation on the revised energy National Policy Statements 'Planning for new energy infrastructure: revisions to National Policy Statements'	The UK Government's Powering Up Britain Strategy, Powering Up Britain: Energy Security Plan and Powering Up Britain: Net Zero Growth Plan sets out how the UK will achieve energy security, promote green growth and meet its net zero targets. Powering Up Britain was published in March 2023 to presents the most up to date information on the Government's energy strategy. It recognises the huge potential solar generation can have in decarbonisation and emphasises the need to maximise the deployment of groundmounted solar. This strategy (p20) states the UK government 'seeks large scale solar deployment across the UK, looking for development mainly on brownfield, industrial and low/medium grade agricultural land.' The document reiterates the target set out in the British Energy Security Strategy (2022) to increase solar fivefold by 2035, up to 70 GW, providing further certainty for support for solar. Powering up Britain emphasises that ground mounted solar is one of the cheapest forms of electricity generation and is readily deployable at scale. On agricultural land, Powering up Britain states: 'Government seeks large scale solar deployment across the UK, looking for development mainly on brownfield, industrial and low/medium grade agricultural land. The Government will therefore not be making changes to	While the ExA has not explicitly asked about the 6th Climate Change Budget, produced by the UK Climate Change Committee, this is an important reference document which sets out the broad challenge and routes to decarbonisation, including the importance of land use and production of biofuels, issues which have not been addressed by the Applicant. In the Net Zero Strategy (2021), although solar is mentioned, most references are to new build rooftop and retrofit solar, as well as a case study of a community solar scheme (Cuckmere Community Solar) at 4MW capacity. The British Energy Security Strategy (2022), restates the Ten Point Plan, in which solar is again not included. Solar is included in a chapter heading for the first time "Solar and Other Technologies". In this, the ambition for a five-fold increase in solar capacity is first described, i.e. from 14GW currently, to 70GW.

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		categories of agricultural land in ways that might constrain solar deployment.' This clarification makes it clear that there is no intention to change the definitions of BMV land. It also clearly states that it expects solar development to take place on low/medium grade agricultural land.	There is also a clear emphasis on "supporting the effective use of land by encouraging large scale projects to locate on previously developed, or lower value land". Powering Up Britain (2023), states the ambition for 70GW of solar by 2035, with the first reference to large-scale solar development "looking for development mainly on brownfield, industrial and low/medium grade agricultural land", in addition to "widespread deployment of rooftop solar in commercial, industrial and domestic properties across the UK".
Q1.1.2	Policy Implications for Net Zero Provide a summary of the effect upon, and the implications for, the Government's NetZero and climate change commitments should the Proposed Development not be implemented.	The Net-Zero obligation is the UK's contribution to meeting the 2015 Paris Agreement on Climate Change and there is a duty on government to ensure that these targets are met. Paragraphs 4.7.4 – 4.7.6 of the Statement of Need APP004/2.1] summarise the Committee on Climate Change (CCC's) 2022 review of Government progress towards its 2050 Net Zero commitments: the UK's emissions targets are compliant with the Paris Agreement and the Net Zero	The National Grid TEC register includes over 130,000MW of connections relating to ground mounted solar schemes. This is in addition to an existing 16,000MW of solar currently installed, and the potential for a further 50,000+MW of solar on suitable rooftops in the UK. (As described

ExQ	Question	Applicant's Response	7000 Acres Response
		strategy (and supporting strategies) to reach them are credible, however policies are not yet in place to drive the large programme of delivery required in the 2020s and tangible progress is lagging behind the policy ambition. The implication is that more needs to be done in delivery and policy to achieve the required emissions targets on the way to Net Zero.	in 7000Acres WR on Decarbonisation and Energy). This would indicate c.200,000MW of potential solar in the UK, vs. an ambition for 70,000MW.
		Figure 5.2 of the Statement of Need shows the results of an analysis by National Grid ESO of the carbon emissions associated with each of the four scenarios they modelled in the 2022 Future Energy Scenarios (FES), in relation to carbon budgets CB4, 5 and 6. Carbon emissions are currently higher than they need to be to meet CB4 (2023-2027), and emissions will need to already be on a significantly downward trajectory through CB5 (2028-2032) in order to remain on track to achieve CB6 (2033-2037). On 10 July 2023, National Grid ESO published their 2023 Future Energy Scenarios report (FES 2023), and updated the chart shown at Figure 5.2 of the Statement of Need, as Figure 1 in their 2023 report. There are no discernible differences in this figure in moving from the 2022 to the 2023 report.	It is clear there is a vastly abundant pipeline of potential future solar development, which renders any claim for the Gate Burton scheme to be "essential" to decarbonisation as spurious. The specific implications of the proposed development not being implemented are therefore negligible.
		Government's position is that solar will be part of the solution to decarbonising the electricity grid (Paragraph 8.1.1 of the Statement of Need) and Figure 5.1 of the Statement of Need shows the trajectories of installed solar capacity projected in each of National Grid's Future Energy	

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		Scenarios (FES). This is updated in FES 2023 at Figure ES.13; the only discernible update to the figure, is an increase in solar generation capacity in the one scenario which is not compliant with a Net Zero future. Rising from approximately 14GW in 2023; solar generation capacity in the UK will need to rise to between 25GW and 42GW by 2030 in scenarios which are compliant with a Net Zero future (FES 2023: between 25GW and 41GW by 2030 for the same scenarios).	
		The Applicant's response to the ExA's Q1.1.4 describes the implications of the 2023 Skidmore Review in respect of the consideration of the Scheme, which lists as its Priority Mission no 2 the 'Full-scale deployment of solar including a rooftop revolution to harness one of the cheapest forms of energy, increase our energy independence and deliver up to 70GW of British solar generation by 2035'.	
Q1.1.3	Policy implication for Net Zero Taking account of the availability and capacity of other existing points of connection to the National Electricity Transmission System (NETS) or local Distribution Network (both in the region and nationally), what evidence is there of opportunities for other	Paragraph 7.4.11 of the Statement of Need [APP-004/2.1] explains that the inclusion of a project in a forward capacity projection is not an indication that the project will go ahead, or if it does, at a particular generation capacity. Indeed, recent analysis by National Grid ESO (Appended at Appendix 1-1-3A) indicates that only 30-40% of projects which are "in the queue" to connect make it through to fruition. Examples of why a project may not come to fruition include where grid connection offers have been made but then the Applicant is unable to secure the land to deliver the project, has been unsuccessful in securing	The National Grid Transmission Entry Capacity (TEC) register is a public record of all existing grid generating connections and future secured connection capacity. There are almost 400 proposed solar schemes with grid connection capacity amounting to over 130,000MW in total. These schemes all have points of connection to the National Grid only. There is no equivalent easy view for

ExQ	Question	Applicant's Response	7000 Acres Response
	solar projects to come forward in other locations that would be likely to fulfil the Governments Net Zero and climate change commitments in the absence of the Proposed Development?	planning permission or has not obtained funding. A recent example of this, is the announcement in July of construction work stopping at a large offshore wind farm which has a grid connection and a government-backed Contract for Difference. Two other offshore wind farms are "under review" by the same developer. The news article is appended at Appendix 1-1-3B	proposed distribution-connected or rooftop schemes. To what extent the 130,000MW of grid-connected solar is a subset of overall projects in concept is not known, but clearly even accounting for a proportion of these schemes not going ahead, there are plenty of opportunities for other solar projects to come forward in other locations, that would help the Government fulfil its Net Zero and climate change commitments.
Q1.1.4	Updating references Paragraph 4.3.9 of the Applicant's Statement of Need [APP-004] refers to the then unpublished 'Skidmore Review'. Following its recent publication on 13 January 2023 as 'Mission Zero Independent Review of Net Zero', comments are invited on any implications this review may have in respect of the	Mission Zero was published in January 2023 by Rt Hon Chris Skidmore MP, Chair of government's Independent Review of Net Zero. The report was commissioned to ask how the UK might deliver its own net zero targets in a manner that was more affordable, more efficient, and in a pro-business and pro-enterprise way. Mission Zero recognises the importance of taking action on net zero. It also recognises the fact that the energy transition is a new economic reality, particularly amid the global reality of the energy security crisis and rising gas and fossil fuel prices in 2022. Mission Zero reconfirms the global importance of the UK's commitment to achieve net zero and makes	Recognising that action is needed on climate change is not disputed by 7000Acres. The Skidmore review takes a holistic view of the Net Zero challenge, seeking to make "recommendations both for government, for each sector and industry, for local regions and authorities, indeed for individual households". The review makes no explicit reference to Ground-Mounted solar, other than calling

ExQ	Question	Applicant's Response	7000 Acres Response
	consideration of the Proposed Development.	recommendations which should be taken forwards now, alongside other wider recommendations. It states that the UK should be proud of the steps it has taken so far to achieve net zero, and that climate change and the economy are intertwined. The UK must however move quickly, not only to protect and secure delivery of our national climate commitments but also deliver the economic benefits of moving away from a carbon economy. The review finds that "The benefits of net zero will outweigh the costs" and believes that "This is too important to get wrong" [p9]. Mission Zero makes the following recommendations which are relevant to the growing need for large -scale ground mounted solar to be deployed in the UK:	for "a taskforce and deployment roadmaps with clear milestones to reach up to 70GW by 2035. This should include: • Actions and milestones for the different solar technologies (rooftop solar PV, ground mount solar)" By contrast, within Section 2.4 on Energy Supply, Paragraphs 266-268 (and following panel) call for a "Mission for Rooftop Solar", including a "rooftop revolution" (it is notable there is no equivalent call for a "ground-mounted solar revolution).
		 Priority Mission no. 2: "Full-scale deployment of solar including a rooftop revolution to harness one of the cheapest forms of energy, increase our energy independence and deliver up to 70GW of British solar generation by 2035"; Priority Mission no. 8: "Working towards gas free homes by 2035 [or earlier]" and Recommendation 1 is to set a legislative target for gas -free homes and appliances; Recommendation 15 is the swift delivery of Zero Emissions Vehicles and the ZEV mandate to apply from 2024. It is however important to note that Government's subsequently published Powering Up Britain (March 2023), remains ambitious and forward - thinking in its targets for 	 "solar farms in the countryside should be not be planned piecemeal but in a coordinated fashion as part of a Land Use Strategy". The Applicant does not address issues of overall land use for decarbonisation. "where located near communities, the utilisation of a consent process — that could be delivered through Local Area Energy Planning, a 'Net Zero

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		the decarbonisation of light road transport, but is less explicit in regard to associated timelines – noting the practical requirement to remain compatible (from a supply chain / industry change perspective) with the wider European position: "Between 2030 and 2035, new cars and vans will only be able to be sold if they offer significant zero emission capability"; • Priority Mission 8 and Recommendations 1 and 15 of Mission Zero add weight to the argument for the rollout of solar and other renewable generation to meet the growing demand which will be enabled by their delivery (i.e. the substitution of fossil fuels for low-carbon electricity outside of the power sector, in particular in homes and vehicles); • Priority Mission no. 9 is to "Embed nature and habitat restoration maximising co-benefits for climate and nature wherever possible." Ground mount solar can deliver against this Priority Mission through delivering biodiversity net gain as a result of development; and • Recommendation 11 is to "Set up taskforce and deployment roadmaps in 2023 for solar to reach up to 70GW by 2035." This Recommendation recognizes that the current pipeline for solar projects in the UK, and the most ambitious projections for solar deployment from National Grid ESO's Future Energy Scenarios, are not yet of sufficient scale to meet Government's ambition without undue levels of risk associated with the deployment of other	Neighbourhood Plan' or equivalent — should aim to ensure that these projects are not imposed on local communities". There is no evidence of support for the proposed scheme, therefore it would appear the Applicant is seeking to impose the project on the local community. Section 2.5 of the review considers System Flexibility, opening with "The high penetration of renewable generation within the energy system comes with the challenge of supply side variability". Within this section: • Paragraphs 287 states "There is a clear and rising need for flexibility in the UK's electricity system", arising from the need to balance energy supply with demand, • Paragraph 292 states that while plans for short-term storage (intra-day) are comprehensive, the review concluded in Paragraph 293, that "government could provide more clarity on long duration (between day and beyond) solutions for
1		technologies.	, , ,

ExQ	Question	Applicant's Response	7000 Acres Response
		Mission Zero recognises the importance of local action and local plans to the achievement of Net Zero. "People and places" must be empowered to deliver net zero through a full alignment on a local level with a net zero future through the introduction of a "net zero test". All local authorities will be required to play their part in achieving carbon neutrality in the future. Ground-mounted solar (at both NSIP and TCPA scale) is a leading deliverable low-carbon generation technology which will enable local authorities to deliver against plans to decarbonize on a local level. In the context of the Scheme, Mission Zero re-emphasises the criticality of solar to the UK's future energy mix not only to help achieve net zero but also to help achieve energy independence. In this regard the Scheme would make a major contribution as well as significant input towards the 70GW solar target to be delivered by 2035. Indeed, the contribution the Scheme could make would be realised from the late 2020s (when it is currently planned to enter commercial operation). The Scheme would also actively deliver on the priority to embed nature and habitat restoration throughout our transition to net zero, offering the opportunity for significant Biodiversity Net Gain (as evidenced in the Biodiversity Net Gain Assessment (APP-230)). Mission Zero is considered to offer significant support to the principle of delivering solar as urgently required	managing so called dunkelflaute events, periods of low wind and low solar generation potential." The Applicant does not address issues of flexibility, in particular, how the proposed scheme will balance energy supply with demand, in particular at periods of high demand, or periods of over-supply (peak solar). Section 3.6 looks at growth and decarbonisation across sectors, recognising the particular interdependency between food, agriculture, nature and land use have with decarbonisation. In this section: • Paragraph 654 asserts "The transition to net zero and the growing impact of climate change is affecting how we use land", and highlights the need for new uses of land to decarbonise, "Net zero relies on using land to remove carbon from the atmosphere. For example, the UK is planning to plant 30,000 hectares of
<u>u</u>		the principle of delivering soldr as digerity required	

ExQ	Question	Applicant's Response	7000 Acres Response
		national infrastructure, the UK's energy independence and	woodland a year by the end of this
		habitat restoration and thus lends further weight in	parliament.
		support of the Scheme.	
			• 469 Nature-based solutions (like tree-
			planting) are expected to provide around
			40% of the greenhouse gas removals
			required by 2050. 470 At the same time,
			there is growing pressure on our land for
			other uses – for example, the UK's
			housebuilding target of 300,000 new
			homes per year by the mid-2020s and
			growing uses linked to net zero, such as
			biomass, nuclear, solar or wind power."
			Paragraph 659 asserts "The Government
			lacks a clear plan for how we will manage
			these competing and interrelated
			demands on land".
			The Applicant states that the scheme
			"would also actively deliver on the priority
			to embed nature and habitat restoration
			throughout our transition to net zero,
			offering the opportunity for significant
			Biodiversity Net Gain". The Applicant fails
			to consider any alternative opportunities

ExQ	Question	Applicant's Response	7000 Acres Response
			for biodiversity improvement, many of which would not start by removing significant hedgerows and industrialising an area of countryside. The Applicant concludes that "Mission Zero is considered to offer significant support to the principle of delivering solar as urgently required national infrastructure". It is notable that the "headline" call from the report is for a Rooftop Solar Revolution to meet this, rather than an explicit call for a large-scale ground-mounted solar installations.
Q1.1.8 and Q1.1.9	Generation Capacity Dependability Figure 8.1 of the Statement of Need [APP-004] shows Illustrative Generation Capacity Dependability for a combined portfolio of solar and wind in Great Britain, with some	The data for the graph at Figure 8.1 of the Statement of Need [APP-004/2.1] is sourced from National Grid's Demand Data and Actual Metered Generation files. These are large datasets which the Applicant can provide if the ExA confirms that to be its preference. The Demand Data files include National Grid's estimated output, and capacity, for unmetered wind and unmetered solar generation. The Actual Generation file includes metered wind generation (but not installed capacity).	Within the SoN, the Figure 8.1 shows a graph of wind and solar load factors over a year, but chooses to omit the scale from the "y" axis. The graph attempts to portray that a combined portfolio of wind and solar provide level of "generation dependability", based upon the author's model which uses monthly data.

ExQ	Question	Applicant's Response	7000 Acres Response
	supporting commentary in paragraphs 8.8.4 to 8.8.9. 1) Provide further details of the methodology and evidence used in providing Figure 8.1 [APP-004], including the number, proportion, size and location of solar and wind generating assets used in its formulation. 2) What level of certainty can there be that the conclusions derived from Figure 8.1 [APP-004] are typical for solar and wind installations as a whole?	National Grid's Future Energy Scenarios includes a workbook which estimates installed wind capacity by year. This data and data available from National Grid's Transmission Entry Capacity (TEC) Register, has been used by the author to derive a series of historical metered wind capacity. This is also a large dataset which the Applicant can provide if the ExA confirms that to be its preference. The data series shown in Figure 8.1 is therefore derived from the data, and data points are interpolated to derive an estimated actual capacity operational in each month. Two load factor series can therefore be calculated: one for solar, and the other for the combination of metered and unmetered wind	In reality, the actual variation in generation will vary significantly, as solar falls from its peak output at the middle of each day to zero overnight, and as wind and cloud vary each day. Since generation supply must match demand, moment by moment, the impression of a combined dependability is misleading. The author's monthly resolution model is oversimplified and insufficient to capture these variations, and the SoN later notes that the model "does not take into account the requirement to balance supply and demand on a short term basis", which renders it largely useless for the purpose of the SoN. In practice, once a combined wind and solar generation
	Mutual compatibility of solar and wind generation model Figure 8.2 of the Statement of Need [APP-004] shows the results of a model that seeks to illustrate the mutual compatibility of solar and wind generation, with some		picture is formed, the shape of "residual load" required to meet demand must be produced by some form flexible generating capacity (or flexible demand) and is extremely variable. The sharp variations in solar production simply make meeting this shape more challenging. For the SoN to assert that

ExQ	Question	Applicant's Response	7000 Acres Response
	supporting commentary in paragraphs 8.8.10 to 8.8.14. 1. Provide further details of the methodology and evidence used in this model and the resulting Figure 8.2 [APP-004], including any relevant assumptions and limitations. 2. What level of certainty can be attached to the model, taking account of any assumptions and limitations		"solar will smooth seasonal variations in total GB renewable generation", without being honest about the significant challenges solar creates through its highly variable output is disingenuous.
Q1.1.14	Transfer of energy to the national grid My understanding is that a BESS is needed to control the transfer of energy to the national grid because of the fluctuating quantities of energy generated by the solar panels: The BESS could thus be necessary development	(i) The BESS will provide Ancillary Services which are essential to support the smooth functioning of the grid. The BESS will also help National Grid Electricity System Operator (NGESO) balance supply and demand by participating in the Balancing Mechanism. Assets to provide these functions (by providing Ancillary Services and operating in the Balancing Mechanism) are necessary to address the impacts of increasing renewable energy sources (RES) which displace the carbon intensive means of generation that have traditionally provided these functions. The need is expected to grow as a result of the	The Applicant has described how the BESS will participate in the Balancing Mechanism – which will allow trading of energy not associated with that produced by the solar scheme. Buying cheap energy from the grid (e.g. periods of high wind), and selling back at peak times will be the primary source of

ExQ	Question	Applicant's Response	7000 Acres Response
ExQ	associated with the Proposed Development which is the solar energy generating panels. Paragraph 2.4.24 of Chapter 2 of the ES (The Scheme) [APP- 011] says that "The BESS is designed to provide peak generation and grid balancing services to the electricity grid. It will do this primarily by allowing excess electricity generated from the solar PV panels to be stored in batteries and dispatched when required It may also import surplus energy from the electricity grid." Explain: i) Under what circumstances	further rollout of RES onto the GB electricity system. In order for the BESS to fulfil both of these functions, the BESS will at times import power from the principal solar development. It will also need to be able to import power from the grid as well as export power to the grid to provide these services, and further information as to why this is the case is provided below Chapter 11 of the Statement of Need [APP-004/2.1] provides evidence on the requirement for assets with intrinsic flexibility to be developed alongside low-carbon generation to support full decarbonisation of the UK's electricity system by 2035 (Para 8.9.3 of the Statement of Need). Para 11.1.1 of the Statement of Need quotes from p6 of the National Infrastructure Commission's (NIC's) Renewables, recovery, and reaching Net Zero (2020): "It is key that, alongside deploying renewables, the UK continues to drive innovation in the power sector to effectively build a flexible electricity system. Storage technologies, flexible demand, efficient interconnectors, and other innovations are also needed to support renewables and maintain the security of the electricity	revenue for the BESS, therefore it is not strictly associated development. The Import / Export capacity is such that the BESS can take advantage of general market trading, in addition to (or instead of) storing surplus energy from the GBEP solar scheme. See also Section 5 of the 7000 Acres WR on Decarbonisation & Energy for details.
	i) Under what circumstances and why it would be necessary to allow electricity imported from the national grid to be stored in the Gate Burton BESS; and	• •	

ExQ	Question	Applicant's Response	7000 Acres Response
	ii) How and why the importation of electricity from the grid has a direct relationship with and supports the operation of the Proposed Development, (i.e. the solar panels generating the electricity), and is not an aim in itself but is subordinate to the principal development and thus fulfils the requirements of associated development.	unable to provide those services to the national electricity system. Table 11-1 of the Statement of Need sets out the services which are important to the proper functioning of the electricity system. The following table includes the same services with two additional data fields	
Q1.1.15	Energy production from the solar panels In the Grid Connection Statement [APP-232] paragraph 4.1.1 states that "The Scheme will generate electricity and transmit it to the System Operator (National Grid Electricity System Operator (NGESO))" And at paragraph 4.14 it states "As such, the Applicant confirms that output of the Solar and BESS will be	i. Solar cell (*) energy yields vary significantly over hourly and daily periods during the calendar year and are subject to environmental, climatic and seasonal conditions as well as grid system availability. Monthly and seasonal outputs can be statistically simulated and as a result average hourly or daily outputs can be computed but instantaneous outputs cannot be guaranteed and will vary due to weather conditions and the factors mentioned above. To illustrate seasonal variability, below are charts indicating average simulated daily outputs from December to June, and overall total output on a monthly basis. Graph: January to December Average Daily Energy Output Graph: Overall total output on a monthly basis	The Applicant does not answer the questions about output directly. The graphs provided give an impression of variability of output over the day / year, but they do not answer the questions about how much energy is expected to be provided. In the peak of summer, the average output will be 16% of capacity, providing an average of 1970MWhrs per day, across the hours of 4am to 7pm. (For comparison, this equates to c. 1 hour of production

ExQ	Question	Applicant's Response	7000 Acres Response
figur Bear teche solar confi effici Curre and i Curre natic addr i) Ho expe prod ii) At iii) Is avail prod time iv) H comp sites	rited via the NETS", but notes are provided. Fing in mind the pace of mological change, including repanel types, materials and figurations; and conversion fiency from the Direct ent (DC) panels to inverters inverters to Alternating ent (AC) output to the fonal grid can the Applicant ress the following matters: fow much energy is it exted that the solar cells to fluce daily? The what times of day? The there hourly projections able of likely energy fluction by time of day and for year? Tow do these figures pare with other alternative finvestigated by the flicant?	ii. Average hourly predicted outputs vary seasonally, below are average predicted hourly outputs for December (lowest typical generation) and June (highest typical generation) iii. Yes, likely energy production can be forecast based on Typical Meteorological Year (TMY) data used in solar PV plant simulations. As per previous responses, average expected hourly or daily outputs can be simulated but cannot be guaranteed due to instantaneous weather conditions. PV plant simulations include statistical exceedance probability calculations for assessing the confidence of forecasts	from the decommissioned coal plant at Cottam when it was operational). In December, the average output will be 3% of capacity, for 500MW, this will provide around 360MWHrs over a day, between the hours of 8am to 3pm. For days with very low solar output, the output will be as low as 0.5% of capacity, which would yield 60MWhrs over a day. During this time, daily demand will be around 900,000MWHrs. At 3% of rated output, the scheme will deliver 0.04% of daily demand. At peak national demand, around 6pm, requiring around 48,000MW, the scheme will not contribute at all. Sections 2.3 and 2.4 of the 7000Acres WR on Energy and Decarbonisation provide further details.

ExQ	Question	Applicant's Response	7000 Acres Response
	v) What is the maximum		In terms of BESS storage capacity, as has
	storage demand that will be		already been described, the output of the
	made on the BESS by the		solar scheme will vary over the year, from
	energy generated by the solar		a peak of around 16.5% in July, to 3% in
	panels?		December. The implications of this are:
	vi) Is the BESS able to deal with this demand? and, vii) What is the export limit both as DC from the solar panels and as AC into the national grid?		• In July, the solar scheme would produce, on average, around 1970MWh per day. In theory, therefore, the battery would be able to store a maximum 25% of the day's output to be able to provide power at periods of no-solar, or to potentially reduce curtailment.
			• In December, the scheme would produce, on average, around 355MWh per day, which would be insufficient to charge the battery. Section 5 of the 7000Acres WR on Energy and Decarbonisation provides further details.

ExQ	Question	Applicant's Response	7000 Acres Response
Q1.9.2	Design principles In the context of EN-1 of the NPSs paragraph 4.5.5, explain how the design of the proposed development meets the National Infrastructure Commission's Design Principles for National Infrastructure (February 2020) in respect of Climate, Places, People and Value, in all three phases of construction, operation and decommissioning.	NPS EN-1 (July 2011) paragraph 4.5.5 states that: 'Applicants and the IPC should consider taking independent professional advice on the design aspects of a proposal. In particular, Design Council CABE can be asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service'. This text is retained in paragraph 4.6.8 of draft NPS EN-1 (March 2023), with the omission of the words shown with a strike through above showing continuity in policy approach over time. The requirement is for Applicants to consider taking independent advice. The project has taken a multi-disciplinary, iterative approach to the design of the scheme and the project is considered to represent good design. The Planning, Design and Access Statement [2.2] discusses the overall approach to design and the Outline Design Principles [2.3] ensure that in detailed design the key principles of design are incorporated. The principles of good design are shown in the ES conclusions, which show that despite the very significant amount of electricity generated, the only significant adverse environmental effects are related landscape and visual effects. The design has been influenced by engagement with key environmental	The lack of criticism of the design is most likely due to the lack of detail provided by the applicant in the descriptions contained within the Scheme documents ie Table 2.1 Design Parameters: Maximum height of Solar PV Panel above ground level (AGL). The maximum height of the highest part of the PV Panel will be 3.5m AGL. Indicative slope and orientation of the PV Tables from the horizontal. The PV Tables will slope towards the south, at a fixed angle of 5 to 45 degrees from horizontal. Indicative footprint. Approximately 80m length x up to 9m wide per PV table. Indicative separation distance between rows of PV Tables. 2m at the closest point and 15m at the furthest point.

stakeholders, local planning authorities and the community. This is shown in the relative lack of Relevant Representations criticising the design of the Scheme. That is not design information that the general public can use to generate comments, but indicative parameters, hence the lack of RR's criticising the scheme design. In addition, the Applicant has repeatedly used images relating to "generic" solar schemes with much reduced visual aspect, such as in the Applicant's answer to Q1.12.5, which serve to mislead the reader and avoid criticism of the scheme. Other instances of "vague design" include, Indicative PV Panel colour. The PV Panels will be dark blue, grey, or black in colour. So what colour is the design based upon? PV Mounting Structure. Will be galvanised steel or anodised aluminium poles.	ExQ	Question	Applicant's Response	7000 Acres Response
Representations criticising the design of the Scheme. and 9m tall and 80m long. That is not design information that the general public can use to generate comments, but indicative parameters, hence the lack of RR's criticising the scheme design. In addition, the Applicant has repeatedly used images relating to "generic" solar schemes with much reduced visual aspect, such as in the Applicant's answer to Q1.12.5, which serve to mislead the reader and avoid criticism of the scheme. Other instances of "vague design" include, Indicative PV Panel colour. The PV Panels will be dark blue, grey, or black in colour. So what colour is the design based upon? PV Mounting Structure. Will be galvanised			stakeholders, local planning authorities and the	This means that applying simple geometry
That is not design information that the general public can use to generate comments, but indicative parameters, hence the lack of RR's criticising the scheme design. In addition, the Applicant has repeatedly used images relating to "generic" solar schemes with much reduced visual aspect, such as in the Applicant's answer to Q1.12.5, which serve to mislead the reader and avoid criticism of the scheme. Other instances of "vague design" include, Indicative PV Panel colour. The PV Panels will be dark blue, grey, or black in colour. So what colour is the design based upon?			community. This is shown in the relative lack of Relevant	the PV Tables can be any size between 5m
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steel or anodised aluminium poles.				PV Mounting Structure. Will be galvanised
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ExQ	Question	Applicant's Response	7000 Acres Response
			So what is the design based upon?
			A Power Conversion Unit comprises an inverter, a transformer, and switchgear, which can be grouped together or
			distributed throughout the Site.
			So what is the design based upon?