One Earth Solar Farm

Written Summary of Applicant's Oral Submissions at Compulsory Acquisition Hearing 1

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Revision 1

September 2025

One Earth Solar Farm Ltd

Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010

Contents

1.	Introduction	2
2.	Written summary of the Applicant’s oral submissions	0

1. Introduction

1.1.1. This note summarises the oral submissions made by One Earth Solar Farm Ltd (the **Applicant**) at Compulsory Acquisition Hearing 1 (**CAH1**) held on 3 September 2025 in relation to the application for development consent (**Application**) for the One Earth Solar Farm (the **Proposed Development**).

1.1.2. Where the Examining Authority (the **ExA**) requested further information from the Applicant on specified matters, or the Applicant undertook to provide further information during the course of CAH1, that further information is either set out in this document or provided as part of the Applicant's Deadline 3 submissions.

1.1.3. This note does not purport to summarise the oral submissions of other parties, and summaries of submissions made by other parties are only included where necessary to give context to the Applicant's submissions, or where the Applicant agreed with the submission(s) made and so made no further submissions (this is noted within the document where relevant).

1.1.4. The structure of this note follows the order of the items listed in the detailed agenda published by the ExA ahead of the hearings (the **Agenda**). Numbered agenda items referred to are references to the numbered items in the Agenda. The Applicant's substantive oral submissions commenced at Item 2 of the Agenda. Therefore, this note does not address Item 1 on the Agenda as this item was procedural and administrative in nature.

2. Written summary of the Applicant's oral submissions

#	Agenda item	Written summary of Applicant's oral submissions
2	**The statutory conditions and general principles applicable to the exercise of powers of compulsory acquisition**	**(i) The applicant will be asked to provide evidence on how the proposed development and the approach taken to compulsory acquisition and temporary possession meet the legislative tests.** **a) Whether the purpose for which compulsory acquisition powers are sought would comply with section 122(2) of the PA2008 and whether there is a compelling case for the proposed development?** Mr. Richard Griffiths, partner at Pinsent Masons LLP on behalf of the Applicant, stated that the Applicant's case for the compulsory acquisition ("**CA**") and temporary possession ("**TP**") powers sought is set out in Section 5 (Source and scope of powers sought in the DCO), Section 6 (Purpose of the Powers) and Section 7 (Justification for the CA powers) of the **Statement of Reasons [REP2-011].** In summary, the Applicant has included CA and TP powers in the draft Development Consent Order ("**dDCO**") to enable the Applicant to protect the Proposed Development, to mitigate its impacts of the Proposed Development where necessary and in order to ensure the Proposed Development can be built, operated and maintained. In the absence of these powers, the Order Land may not be assembled, uncertainty would prevail and the Applicant's project objectives and those of Government policy would not be achieved. **Appendix A to the Statement of Reasons [REP2-011] and the Land Rights and Negotiations Tracker [REP2-017]** sets out why each of the plots is required (eg freehold, rights only and etc), by reference to the relevant works package of the authorised development. In relation to permanent acquisition, Part One of Appendix A identifies the areas in which freehold acquisition is sought (coloured pink), which are for the Solar PV generating station, energy storage facility, on-site substation, and other associated development such as cabling within the PV sites. The Applicant has only included powers to compulsorily acquire the freehold interest in this land where other powers, such as to acquire new rights or take TP, would not be sufficient or appropriate to enable the construction, operation or maintenance of the Proposed Development. Mr Griffiths confirmed that the majority of the main site identified for acquisition – marked in pink on the Land Plans – are now under signed option agreements. This reflects substantial progress as documented in the **Land and Rights Negotiations Tracker** [**REP2-017**]. Only two specific plots remain outside of those agreements; further discussion regarding these will take place under the relevant agenda item. Overall, the freehold acquisition process is well advanced, with nearly all targeted land parcels now secured under option. Part Two of Appendix A identifies the land over which rights are sought (coloured blue), which is for Work No. 5, as the Applicant does not need anything more than the right to install and maintain and the right to protect the cable.

#	Agenda item	Written summary of Applicant's oral submissions
		Part Three of Appendix A identifies the land over which TP is only sought (coloured yellow). However, the dDCO will authorise the Applicant to use TP over all other land in the Order Land, in order to allow it to take TP ahead of acquiring land or rights permanently, in particular over the cable corridor to allow for micro-siting to narrow the easement and enable the Applicant to only CA the minimum amount of land and rights over land required to construct, operate and maintain the Proposed Development. Mr Griffiths set out that in summary, the Applicant contends that the scope of CA powers sought goes no further than is needed. All land within the Order Land is needed to achieve the identified purpose of delivering the Proposed Development and this has been identified in the submitted documents. The Examining Authority, and the SoS, can therefore identify how the Applicant intends to use each Plot and its function as part of the Proposed Development. The Applicant therefore considers that between the Works Plans, the Statement of Reasons and the Land Rights and Negotiations Tracker it has demonstrated that the test in section 122(2) of the Planning Act 2008 is met. Mr Damien Griffiths (appearing on behalf of affected persons, Peter and Christine Scott) inquired whether maps were available for review, specifically in relation to plots of land owned by his family. Mr Richard Griffiths, on behalf of the Applicant, confirmed that various plans – including Crown land plans, general land plans, and works plans – were available and could be displayed on request. It was clarified that detailed discussions on individual plots would be addressed in Part Two of the hearing, which focusses on specific land interests. Mr Richard Griffiths further explained that the acquisition sought with respect to the interests within the Order Land owned by Mr and Mrs Scott only related to the subsoil beneath the highway adjacent to their property, in order to install a cable under the highway. Under legal precedent, landowners whose property abuts a highway also own the subsoil beneath it. Therefore, their names were included in the Book of Reference, but no additional rights were being acquired. **Post hearing note:** At this point in the hearing representatives of the Applicant left the hearing to speak to Mr Damien Griffiths and Mr and Mrs Scott separately. An update was later provided to the hearing in relation to those discussions, and, in agreement with Mr D Griffiths and Mr and Mrs Scott, a summary of the discussion is set out here, in order to provide them with clarity and certainty as to the extent of their interest that would be impacted by the Proposed Development. **(Action Point 6)** The interest held by the Scotts in the Book of Reference relates to plots 16-006 (being Gainsborough Road, A1133 and Moor Lane) and 14-027 (being Gainsborough Road, A113 and Moor Lane). The Applicant identified these plots on the land plans to show the Scotts and also showed them the Book of Reference entries, which are provided below:

#	Agenda item	Written summary of Applicant's oral submissions

One Earth Solar Farm Project Development Consent Order
BOOK OF REFERENCE - PART 1
Land which is proposed to be subject to: (i) powers of compulsory acquisition, (ii) right to use the land, and/or (iii) rights to carry out protective works (Regulation 7(1)(a))
Counties of Lincolnshire and Nottinghamshire

Number on Land Plans	Extent of acquisition or use	Description of land	Category 1 Qualifying persons under Regulation 7(1)(a) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009			Qual 7(1)((App P
			Owners or Reputed Owners	Lessees or Tenants	Occupiers	
14-027 cont'd			Peter Malcolm Scott Marsh Gate Farm Trent Lane South Clifton NEWARK Nottinghamshire NG23 7AE (in respect of subsoil beneath half width of public highway)			

#	Agenda item	Written summary of Applicant's oral submissions

Number on Land Plans	Extent of acquisition or use	Description of land	Category 1 Qualifying persons under Regulation 7(1)(a) of the Infrastructure Planning (Applications: Prescribed Forms and Procedu Regulations 2009		
			Owners or Reputed Owners	Lessees or Tenants	Occupiers
16-006 cont'd			Peter Malcolm Scott Marsh Gate Farm Trent Lane South Clifton NEWARK Nottinghamshire NG23 7AE (in respect of subsoil beneath half width of public highway) Rosalind Pickwell The Chase Main Road South Clifton NEWARK NG23 7BE (in respect of subsoil beneath half width of public highway) Unknown		

It was explained to Mr and Mrs Scott that their interest is solely in relation to the subsoil under the highway (as recorded in the above Book of Reference entries), due the legal requirement that land owners adjoining an adopted highway, legally own the subsoil under the highway. The Applicant identified for Mrs and Mr Scott their land holding that adjoined the public highway, showing them on the Land Plans that that land lies outside of the Order Land and is white on the Land Plans, meaning it sits outside of the Proposed Development and no rights or compulsory acquisition is sought over it. For the avoidance of doubt, the only interest held by the Scotts is under the highway that adjoins their property, and there is no intention or ability (should the Proposed Development be granted consent) to use or compulsorily acquire any interest of theirs other than the subsoil under the public highway in the two plots identified above.

The Applicant noted that should the Proposed Development be granted consent, the Applicant will need to send the Scotts a further notice (as they have an interest in the Book of Reference) that will mention compulsory acquisition (which would arrive in around July /

#	Agenda item	Written summary of Applicant's oral submissions

August 2026 if consent is granted) however this is a formality required by the legislation and does not mean that the position, as set out here, has changed.

Mr and Mrs Scott, and Mr D Griffiths were satisfied with the explanation provided, and did not feel the need to participate further in the hearing and left the hearing venue. It was agreed that the Applicant would record the position in the post hearing note and provide a link to Mr and Mrs Scott to this document, once published on the PINS website.

b) Whether all reasonable alternatives to compulsory acquisition have been explored?

Mr R Griffiths, on behalf of the Applicant, explained that in section 7.5 to the **Statement of Reasons [REP2-011]** the Applicant has set out how it has sought to acquire the land and rights necessary for the Proposed Development via voluntary negotiation, and has entered into option agreements with the landowners for the sites required for the solar PV panels, substation, and energy storage. However, it remains necessary to include compulsory acquisition powers within the **draft DCO [REP2-099]** over this land to ensure that the Proposed Development can be delivered without impediment. For example, if there are any unknown third party rights, or if the terms of the option agreement were not complied with by the land owner then CA can be used as a fallback to ensure the project can go ahead. This is a standard approach for Nationally Significant Infrastructure Projects ("**NSIPs**") to ensure deliverability.

In terms of the use of CA powers, the Applicant has considered how the Proposed Development will be constructed and operated, and sought to acquire the minimum amount of land necessary to construct, operate and maintain and decommission the Proposed Development. Wherever possible, CA of rights has been sought instead of CA of the freehold, that being a lesser power.

There are some areas such as for the grid connection route (blue on sheet 8 of the Land Plans) where a wider area of land is subject to CA powers, so that the detailed design and micro-siting of the grid connection cable route can happen at the detailed design stage. The Applicant will only seek to exercise CA powers over the land it actually requires for the installation of the cable once that detailed design is known. TP powers will be utilised first to ensure that the minimum amount of land required for permanent rights for the cable is sought.

Section 7.6 of the Statement of Reasons comments on the alternatives to the Proposed Development that have been considered. It notes that a "no development" scenario is not a reasonable alternative. In terms of location and extent of land and rights, this has been carefully considered and designed in order to take the minimum amount of land required whilst ensuring that the Proposed Development continues to meet the project benefits. None of the alternatives or modifications considered for the Proposed Development in terms of site location would obviate the need for powers of CA and TP over land, especially in respect of the cable corridor and in fact the Order Land minimises CA given the option agreements entered into in respect of the main Solar PV site, and hopefully by the end of examination, the remaining two will also be signed up.

#	Agenda item	Written summary of Applicant's oral submissions

ES Chapter 4 Alternatives and Design Evolution [APP-033] and the **Planning Statement, paragraphs 8.1.30 to 8.1.39 [APP-168]** set out the Applicant's approach to alternatives for both the Solar PV site and the Cable Route Corridor, as well as consideration of different types of solar PV systems technology.

Gemma Newell, representing JG Pears Group (an affected person), raised a query regarding the blue land designated for the cable corridor. She sought clarification on whether, once the ten-metre easement strip for the cable installation is established, the remaining rights over the broader blue land would be extinguished. Ms. Newell questioned whether this limitation was explicitly confirmed within the dDCO.

In response, Mr Griffiths, on behalf of the Applicant, explained that the rights granted under the DCO are strictly tied to the authorised development. Once the rights are exercised for cable installation, they are considered spent and cannot be used for any further development beyond what is outlined in Schedule 1 of the DCO. He emphasised that the Order does not permit the Applicant to exceed the scope of the authorised works.

Mr Griffiths acknowledged concerns about the size of the blue land area, particularly in relation to JG Pears' interests. He noted that the area identified was due to uncertainties around the National Grid substation's location, which had evolved since the Application was first submitted. Although the substation application is not yet finalised, with National Grid indicating a submission in Q4 2025, the Applicant now has greater clarity and intends to revisit the blue land identified in relation to the JG Pears' interest to see if the area can be reduced at this stage.

To provide additional assurance, the Applicant is considering amendments to Schedule 8 of the dDCO to include more specific wording around the required cable width. This would help narrow the scope of rights and offer greater certainty to affected parties, while still preserving flexibility until the substation's location is confirmed.

c) Whether the Secretary of State could be satisfied that the land proposed to be acquired is no more than is reasonably necessary for the purposes of the proposed development?

The ExA asked whether the SoS could be satisfied that the land proposed for acquisition was no more than reasonably necessary for the development. Specific questions were raised regarding the battery storage systems planned for both the western and eastern sites. The western installation was described as having a capacity of 500 megawatts ("**MW**") and 2000 MW hours, occupying approximately 112,000 square metres of land. The eastern installation was noted to have a capacity of 370 MW and 1480 MW hours, requiring around 85,000 square metres.

The ExA asked what battery technology had been assumed in calculating these land requirements. Mr Randall Linfoot, of Orsted and Project Director for the Applicant, confirmed that the proposed technology was lithium-ion battery storage housed in containerised units, which are commonly used across the UK.

#	Agenda item	Written summary of Applicant's oral submissions
		The ExA asked whether this is specifiied in the DCO and whether alternative technologies might require less land or offer greater efficiency. The ExA also asked questions in relation to the configuration of battery systems. Mr Linfoot noted that fire safety regulations significantly influence the spatial requirements due to the need for separation between battery units. Mr Linfoot explained that the total energy capacity, measured in MW hours, determines the land take – not the discharge rate in MW. For example, a 2000 MW hour system could be configured as 500 MW over four hours or 250 MW over eight hours, with both configurations requiring similar land. The final configuration would depend on the needs of the National Energy System Operation ("**NESO**"), whether short-term infill or longer-duration storage is required. Mr Griffiths noted that the **Outline Battery Safety Management Plan [REP1-059]** refers to lithium-battery or similarly suitable chemistry, allowing for flexibility in response to future technological developments. The ExA then referred to **Appendix A of the Written Summary of Applicant's Oral Submissions at the Issue Specific Hearing 1 (ISH1)** [**REP1-077**], which outlines the degradation of solar generation over time. According to the technical note, the maximum generation capacity in year one would be 791 MW peak, falling to 738.9 MW peak by year eighteen. The ExA raised a question about the relationship between this solar generation and the proposed total battery storage capacity of 870 MW. Mr Linfoot confirmed that the Applicant currently holds a connection offer from NESO for a peak capacity of 740 MW, which allows for both import and export of energy. The design of the solar array has been tailored to utilise this full 740MW capacity, ensuring maximum efficiency in both the plant's operation and its use of the grid connection. The battery storage component, however, presents additional complexity. Mr Linfoot explained that curtailment could occur when both the solar system and the battery are fully operational, as the grid connection only permits a maximum export of 740MW. For example, if the battery is fully charged and solar generation is at peak, both systems cannot discharge simultaneously beyond the grid's export limit. This limitation is not externally imposed but arises from the grid's technical capacity at the connection node. To address this, the Applicant has proposed a battery system capable of discharging up to 740MW, with the western site designed to host a 500MW system with a four-hour discharge duration, equating to 2000 MW hours. Due to spatial and technical constraints, a single 740MW battery system on the western site was deemed impractical. As a result, the Applicant opted to split the system geographically between the eastern and western sites, allowing the combined output to meet the grid's dispatch capability. The western site was chosen for its proximity to the grid connection point, which supports efficient energy injection. Mr Linfoot acknowledged that the final configuration of the system remains subject to detailed design and ongoing regulatory developments. **Post hearing note:** The Applicant took an action to provide a technical note summarising the oral statement made at this hearing, including calculating the efficiency of different battery types vs the amount of land that is required for them. The Applicant was asked to

#	Agenda item	Written summary of Applicant's oral submissions

include how the derogation response details on generation totals relate to the BESS and solar panel relationship and the grid discharge. This note it provided at Appendix 1 to this note. **(Action Point 1)**

In response to concerns raised by Mr Walker, an interested party, regarding the broad use of the term "lithium-ion" to describe the battery technology and the Applicant's calculation of the required land area, Mr Griffiths reiterated that the Applicant's CA case is based on current market-standard designs. He explained that the design parameters, including physical dimensions, are set out in the design documents and are constrained by the grid connection agreement of 740MW. The land take has been calculated using these baseline assumptions, which are referenced in the **Outline Battery Fire Safety Management Plan [REP1-059]**. While the plan allows for future design flexibility, it is supported by secured documents within the DCO, including **Works Plans [REP2-007]** and **Outline Design Parameters [REP2-022]**.

d) Whether having regard to section 122(3) of the PA2008 there is a compelling case in the public interest for the land to be acquired compulsorily and the public benefit would outweigh the private loss? In this respect the applicant will be invited to explain how they have conducted the balance between public benefit and private loss

Mr. Griffiths confirmed that in short, the answer to the question is yes, and noted the **Planning Statement [APP-168],** the **Statement of Need [REP2-047]**, and sections 6.1, 6.2 and 7.3 of the **Statement of Reasons [REP2-011]** set out benefits of the Proposed Development, being:

- to help meet the urgent need for new energy infrastructure in the UK, providing enhanced energy security and supporting the UK Government's priorities in relation to economic development and security of supply;
- to deliver additional renewable energy capacity, supporting the Government's climate change commitments, carbon budgets and the path to the net zero legal commitment;
- without the Proposed Development, a significant and vital opportunity to develop a large-scale low carbon generation scheme will be passed over, increasing materially the risk that future carbon budgets and net zero 2050 will not be achieved;
- as a result the Proposed Development complies with NPSs EN-1, EN-3 and the drafts of EN-1 and EN-3;
- in addition to meeting the urgent need for secure low carbon energy infrastructure, the Applicant in the Planning Statement notes that the Proposed Development will deliver other benefits such as:
  - New habitat creation
  - Permissive paths, linking existing routes and creating new routes
  - BNG, a minimum of 10%;
  - Socio-economics – an average of 554 full time jobs over the two year construction phase and 15 full time operational staff.

#	Agenda item	Written summary of Applicant's oral submissions

		Mr. Griffiths noted that the majority of the site is under option (with only two landowners remaining) and the private loss is predominantly limited to the cable corridor. Whilst Mr Griffiths acknowledged that there would be a private loss by those persons whose land or interests in land are compulsory acquired (the majority of which is likely to relate to the cable corridor) and that the Proposed Development may result in some adverse effects to the environment and local community, these individually or collectively would not outweigh the important nationally significant benefits of contributing towards the urgent national need for secure low carbon energy infrastructure. In addition, Mr Griffiths noted that compensation is available for that loss. In summary, there is a compelling case in the public interest for the power to compulsory acquire land and rights over land (together with the imposition of restrictions) to be included in the Order.
		
		The ExA raised points regarding the Applicant's claim that maintaining access to public rights of way during construction constituted a public benefit. Mr Griffiths confirmed that the mitigation measures proposed during construction are intended to avoid closure of public rights of way, which would otherwise be the simplest approach for facilitating the works. Following further discussion, Mr Griffiths reiterated that the Applicant is committing to maintaining access to public rights of way during construction and it is for the ExA to determine the weight to give this in the planning balance. The public benefits are those outlined at 4.3.1 of the **Planning Statement [APP-168]**.
		
		With respect to biodiversity net gain ("**BNG**"), the ExA referenced the latest **dDCO [REP2-009]**, which commits to delivering BNG significantly above the statutory minimum of 10%. The ExA sought clarification on whether achieving this level of BNG required the use of more land than would otherwise be necessary, since BNG is not currently a statutory requirement for nationally significant infrastructure projects. Mr Griffiths, speaking on behalf of the Applicant, acknowledged the tension between meeting CA tests and responding to statutory consultees to deliver enhanced environmental outcomes. He explained that the land take had been calculated based on a combination of mitigation and BNG measures.
		
		Post hearing note: The Applicant took an action to provide further details of the land take for mitigation vs BNG **(Action point 2)**. The Applicant's ecologist, Dr Alan Kirby, responded to this point during Issue Specific Hearing 2. That response is summarised in the written summary from that hearing and also reproduced here for ease of reference:
		
		Dr Kirby for the Applicant clarified that:
		• No land within the Order Limits is designated solely for BNG.
		• Areas used for mitigation and compensation (e.g. for displaced skylarks) also deliver BNG, adding additional ecological value.
		• This integrated approach avoids duplication and ensures multifunctional use of land for both mitigation and enhancement.
		
		The ExA queried whether greater weight should be given to benefits for sensitive species. Dr Kirby responded that:
		• The Ecological Impact Assessment identifies significant beneficial effects for a range of species.
		• The scheme has been designed to support local conservation priorities from the outset, including:
		  ○ Beetle banks, hedgerow management, and temporary scrapes
		  ○ Habitats for red-listed birds such as turtle dove, grey partridge, and corn bunting

#	Agenda item	Written summary of Applicant's oral submissions
		○ Enhanced conditions for water vole through ditch management and mink control Dr Kirby confirmed that while some species (e.g. skylark) may be displaced, targeted mitigation ensures continued breeding opportunities nearby, with an overall positive effect for Biodiversity **(ii) The applicant will be invited to explain how the dDCO demonstrates a commitment to and delivery of the whole project and how this is secured.** The ExA acknowledged that this issue had already been addressed in the Applicant's written responses to earlier questions, which confirmed that the assurance of delivery is not embedded in the DCO itself but is instead driven by a commercial imperative. Mr Griffiths confirmed that this is the case and the Applicant will not be exercising its option agreements unless and until it is going to commence construction of the Proposed Development – as soon as the leases are drawn down, there are financial obligations from the Applicant to the landowners. Mr Griffiths further noted that this approach had been accepted by the Secretary of State in previous decisions, including the Little Crow Solar Park Order 2022, where the commercial imperative was recognised as a valid basis for demonstrating project delivery.
3	**Whether there is a reasonable prospect of the requisite funds becoming available**	The ExA invited the Applicant to clarify its position in relation to the availability of funding for the Proposed Development, in accordance with paragraph 9 of the Compulsory Acquisition Guidance. The ExA noted that while the Funding Statement **[REP2-013]** had been revised at Deadline 2, section 2.3 had not been updated and did not appear to commit to the requirements set out in the guidance. Paragraph 2.3.1 refers to an intention to fund the project, but this had not been formally agreed. The ExA requested clarity on the Applicant's position. On behalf of the Applicant, Mr Griffiths confirmed that the Applicant has the financial resources to develop the project, as evidenced by the accounts submitted with the Funding Statement. He explained that the precise funding mechanism cannot be confirmed at this stage, as a Final Investment Decision (FID) is typically made following the grant of consent. This is standard practice for infrastructure projects. However, the Applicant's accounts demonstrate sufficient financial strength to fund the project independently. In addition, Article 46 of the **draft DCO [REP2-009]** provides that the Applicant may not exercise any compulsory acquisition powers until financial security has been approved by the Secretary of State, in an amount sufficient to cover compensation liabilities. This provides a second layer of assurance. The ExA queried whether Article 46 alone meets the test set out in the guidance, noting that it does not confirm how the Applicant will meet its obligations within the required timeframe. The ExA also noted that the Funding Statement indicates the FID will be made post-DCO, and that funding will be provided in accordance with a shareholders agreement.

#	Agenda item	Written summary of Applicant's oral submissions
		Mr Griffiths confirmed that the shareholders agreement has been entered into between the two relevant companies, and agreed to update the Funding Statement to reflect this. **Post hearing note**: The Funding Statement has been updated as requested and this is provided at Deadline 3. **(Action Point 3)** The ExA also asked whether decommissioning costs were included in the projected cost of the project. Mr Griffiths clarified that the Funding Statement relates only to compulsory acquisition, and that decommissioning was addressed at the previous Issue Specific Hearing. The ExA referred to Requirement 20 of Schedule 2 of the draft DCO and queried how this deals with decommissioning. Mr Griffiths explained that Requirement 20(2) limits the operational life of the project to 60 years and triggers decommissioning obligations either at that point or earlier if notified under Requirement 20(2). Requirement 20(6) further requires the implementation of a Decommissioning Environmental Management Plan, which must be approved by the relevant planning authority and carried out in full. The ExA then returned to the Funding Statement and noted typographical errors in the response to question ExQ9.0.2 in **Applicant Response to ExAs 1st Written Questions [REP2-084]**. Mr Griffiths confirmed that the sentence referred to should be read as "However, in this event the proposed development ~~tis~~ is backed by an organisation with ~~string~~ strong balance sheets and diverse ~~divers~~ funding sources that would enable additional capital to be raised". Finally, the ExA asked whether recent press reports concerning Ørsted had any bearing on the Applicant's ability to fund the scheme. The Applicant confirmed that these reports do not alter the position set out in the Funding Statement or the evidence presented at the hearing.
4	**Whether the purposes of the proposed compulsory acquisition are legitimate and would justify interfering with the human rights of those with interest in the land affected**	The ExA sought clarity on what regard has been had to the European Convention on Human Rights ("**ECHR**"), and Article 1 of the first protocol. Mr Griffiths explained that the Applicant acknowledges in the **Statement of Reasons [REP2-011]** that the DCO has the potential to engage a number of the articles of the ECHR as brought into UK law by the Human Rights Act 1988 but submits that such interference with individuals' rights would be lawful, necessary, proportionate and justified in the public interest. Article 1 of the First Protocol to the ECHR protects the rights to peaceful enjoyment of possessions and provides that no one can be deprived of their possessions except in the public interest. As outlined above, the Applicant has sought to minimise the amount of land over which it requires powers of compulsory acquisition. The Applicant considers that there would be very significant public benefits arising from the grant of the Order. The benefits are only realised if the Order is accompanied by the grant of powers of compulsory acquisition, and the purpose for which the land is sought (to build and operate the Proposed Development) is legitimate. The Applicant has concluded on balance that the significant public benefits outweigh the effects upon persons who own property within the Order Land.

#	Agenda item	Written summary of Applicant's oral submissions
		Article 6 entitles those affected by CA powers sought for the project to a fair and public hearing of their objections. The provision of this CA Hearing enables any Affected Person who wishes to be heard to be heard fully, fairly and in public. Mr Griffiths stated that the Proposed Development has been subject to extensive consultation pre-submission, through written responses and during hearings. He argued that the ExA and the SoS are equipped to weigh the public interest of the scheme against any interference with individual rights, and that the Applicant has sought to ensure that affected persons are treated fairly throughout the process. In response to comments made by Ms Gemma Newell, representing J.G. Pears Group, about the Applicant's ability to assess the impact on her client's land given that the extent of land subject to acquisition of rights may be subject to change, Mr Griffiths explained that the project is inherently iterative, particularly in relation to the grid connection and substation promoted by National Grid. He confirmed that the Applicant is actively reviewing the extent of land required for rights acquisition in light of updated information and is seeking to reduce the affected area where possible, while still enabling delivery of the scheme. This is being done in response to concerns raised by J.G. Pears. Mr Griffiths clarified that the assessment was based on a worst-case scenario, with a broader land take initially considered. The rights sought relate to a cable corridor for underground infrastructure, and the Applicant has assessed the impact as a permanent easement of approximately 10 metres in width. As more precise information becomes available, the Applicant is considering amendments to the dDCO to reflect a narrower corridor and reduce the scope of compulsory acquisition. Mr Griffiths confirmed that human rights considerations and the Equalities Act have been taken into account throughout the design of the scheme.
5	**Consideration of duties under the Equality Act 2010 and obligations under the Public Sector Equality Duty**	The ExA invited the Applicant to provide an update on its compliance with duties under Section 149 of the Equality Act 2010, and to identify where its approach is set out in the submitted evidence. On behalf of the Applicant, Mr Griffiths clarified that Section 149 places a duty on public authorities—and on persons exercising public functions—to have due regard to equality considerations. While the Applicant is not a public authority and does not consider itself to be exercising public functions in this context, it acknowledged that the duty applies to the ExA in conducting the examination and to the SoS in determining the application. Nonetheless, the Applicant confirmed that it has taken reasonable steps to ensure that all individuals engaged with during the development of the application and the proposals for compulsory acquisition and temporary possession were treated equally and without discrimination. This included a range of communication methods to identify and consult with affected land interests, such as letters, emails, phone calls, in-person events, site notices, local deposit locations, and information on the project website. Hard copy materials were made available upon request, and consultation materials were offered in alternative formats—though no such requests were received.

#	Agenda item	Written summary of Applicant's oral submissions
		The Applicant also undertook specific outreach to seldom-heard groups, including targeted letters to community organisations. Where affected persons self-disclosed protected characteristics in relevant representations, the Applicant sought to mitigate potential effects, as described in its response to ExQ1 Q9.0.12 in **Applicant Response to ExAs 1st Written Questions [REP2-084]**. This approach is documented in Section 6 of the Consultation Report [APP-151], which outlines the Applicant's efforts to engage inclusively and equitably. Mr Griffiths reiterated that, regardless of whether the Section 149 duty formally applies to the Applicant, the evidence submitted demonstrates that equality considerations have been appropriately addressed. In response to a follow-up question, Mr Griffiths noted that the Applicant would need to confirm whether the duty would apply post-consent if the Applicant were to become a statutory undertaker. However, he emphasised that the evidence already provided enables the Examining Authority to report on how equality considerations have been met in the context of the examination and the wider application process. **Post hearing note:** The Applicant confirms that it is not subject to the Public Sector Equalities Duty (PSED) under section 149 of the Equality Act 2010. This is because the Applicant is not exercising a public function under section 149(2). 'Public function' here has the same meaning as in the Human Rights Act 1998 (s150(5) of Equality Act). There is extensive case law on this under the Human Rights Act, and it is summarised by the Equality and Human Rights Commission in its PSED technical guidance (updated 14 April 2023) (see A.11 of Annex A of the technical guidance). In summary, the key features of the Applicant against it being subject to the PSED are: • The Applicant is not publicly funded nor does it have a strong reliance on public funding. • It is not exercising powers of a public nature directly assigned to it by legislation. • It is not acting in the place of central or local government. • It is not providing a public service. **(Action point 4)**
6	**Sections 127 and 138 of the PA2008 – the acquisition of statutory undertaker's land and the extinguishment of rights and removal of apparatus of**	The ExA sought to deal with these points under Part 2 of the agenda.

#	Agenda item	Written summary of Applicant's oral submissions
	statutory undertakers	
7	**Section 135 of the PA2008 - Crown Land**	The Applicant provided an update on the current position regarding Crown land interests under section 135 of the Planning Act 2008. Mr Griffiths, speaking on behalf of the Applicant, confirmed that in relation to Plot 04-009, the Applicant continues to engage with The Crown Estate (TCE) in relation to the negotiation of terms for the permanent rights identified as being required by the Applicant since 13 February 2024. TCE has confirmed to the Applicant's agents that they would engage in relation to the voluntary agreement and s.135 consent once the Application had been submitted. Heads of Terms were issued to TCE by the Applicant on 22 July 2025. The Applicant has now received engagement from TCE stating GIS Checks are being undertaking and a response will be received in the next 2 – 3 weeks. The Applicant is optimistic that negotiations regarding voluntary agreements will progress swiftly and anticipates that these agreements will be concluded within the next three months. In relation to plots 15-012, 15-019, 15-020, and 15-021, Mr Griffiths explained that these parcels of land are subject to potential rights or restrictive covenants held by the Secretary of State for Transport. The Applicant has engaged with the Department for Transport, which has now instructed its internal legal team and surveyor to review the relevant deeds in collaboration with the Applicant. These discussions are ongoing and aim to determine whether consent under section 135 is required. The restrictive covenant in question is historic, and its current legal effect is being assessed. Mr Griffiths further clarified that the Department for Transport holds a right of access over certain plots, originally granted in the 1970s, to facilitate the removal of a bridge. Although the bridge has not been removed in the intervening years, the right of access remains in place. The Applicant is working with the Department to ensure that this right can be accommodated, should it still be required. Additionally, plot 15-012 is subject to a restrictive covenant that allows for the potential reopening of a railway. The Applicant confirmed that the cable associated with the Proposed Development can be buried at sufficient depth to allow for coexistence with any future railway use. Discussions are ongoing regarding the design and necessary consents to facilitate this. Finally, Mr Griffiths noted that there are technical complexities in identifying the correct beneficiary of the rights and covenants, given the age of the deeds. As a precaution, the Applicant has assumed a Crown land interest and is actively working with the Department for Transport to clarify the position. Mr Griffiths emphasised that engagement with the Department has been positive and constructive.
8	**Section 132 of the PA2008 – Common Land**	Mr. Griffiths noted that Section 10.2 of the **Statement of Reasons [REP2-011]** sets out the Applicant's position regarding Common Land. The parts of the Order Land which are Common Land form Sparrow Lane (plots 08-06, 08-08, and 08-010).

#	Agenda item	Written summary of Applicant's oral submissions
		No works are proposed which will permanently affect the use of the Common Land or its physical appearance. No permanent above ground infrastructure for the Proposed Development will be constructed on the Common Land as this part of the Proposed Development relates to the underground cable route to the National Grid sub-station. Although there may be temporary interference with the use of the Common Land within the Order Limits during the construction period, the Proposed Development will look to ensure access throughout. As stated at paragraph 10.2.7 of the Statement of Reasons, given the nature of the rights and the fact there will be no above ground infrastructure, it is concluded that the Secretary of State can be satisfied that the land when burdened will be no less advantageous than it was before and as such the exception in section 132(3) of the Planning Act 2008 applies. The Applicant's appointed agents have consulted the Commons Register held by Nottinghamshire County Council. The Commons Register does not list any registered commoners holding any rights of common over the parts of the Order Land that have been identified as Common Land. The Applicant therefore considers that the exception in section 132(3) of the Planning Act 2008 applies and Special Parliamentary Procedure would not need to be exercised.
9	**Representations from parties who may be affected by the compulsory acquisition provisions in the draft DCO**	**The ExA will hear oral representations from:** **(a) Affected persons (APs) who have notified a wish to make oral representations at this CAH.** **• J G Pears Group** Ms Newell, on behalf of JG Pears Group, set out the Group's concerns regarding the scope and impact of the CA powers sought by the Applicant, including that the inclusion of such a large area for CA represents an excessive use of powers. Mr Griffiths, on behalf of the Applicant, responded by referencing paragraph 4.11.8 of NPS EN-1, which acknowledges that separate applications may be submitted for the generating station and the grid connection infrastructure. He explained that this reflects the situation in the present case, where National Grid is responsible for the substation and the Applicant is promoting the generating station. Mr Griffiths also noted there is a legal duty on National Grid to provide a connection at High Marnham under the Grid Connection Agreement. However, the Applicant is responsible for delivering the cable connection from the generating station to the substation. The National Grid substation is expected to be located near the existing infrastructure, but its precise location has not yet been confirmed by National Grid. Due to this uncertainty about the location of the National Grid substation, the Applicant has adopted a precautionary approach when submitting the Application, including a land area that ensures flexibility and certainty in delivering the grid connection. Since submission, the Applicant has gained greater clarity on the likely location of the National Grid substation and is actively reviewing the land requirements with a view to reducing the extent of land subject to CA.

#	Agenda item	Written summary of Applicant's oral submissions
		Mr Griffiths confirmed that the cable corridor will involve a working width of approximately 50 metres under temporary possession powers, with a permanent easement of around 10 metres. In response to a suggestion of prematurity, Mr Griffiths reiterated that national policy permits separate applications and that National Grid has confirmed its intention to submit the substation application in Q4 of this year. National Grid has also indicated that it does not foresee any impediment to securing consent. Mr Griffiths emphasised the compelling public interest in delivering the 740MW renewable energy project, which aligns with national policy objectives, contributes to the UK's carbon reduction targets, and constitutes critical national infrastructure. He argued that the ability to secure the necessary land rights is essential to delivering the scheme and its associated public benefits. While Mr Griffiths acknowledged the concerns raised by J.G. Pears, he maintained that retaining a degree of flexibility is necessary at this stage. Nonetheless, Mr Griffiths committed to reducing the land area where possible and to providing greater clarity on the extent of permanent and temporary land use in future iterations of the DCO. ***Connection agreement and substation timeline*** The ExA sought clarification regarding the timeframe within which National Grid is obligated to connect the Applicant under the terms of the connection agreement. Mr Griffiths confirmed that the connection must be made by 2029. The ExA noted that the SoS is expected to make a decision on the DCO application by mid-2026, and that the application for the planning application for the National Grid substation is anticipated to be submitted in Q4 2025. Assuming a smooth process, a decision from the relevant local planning authority could be expected by April 2026. ***Revision of land plans and cable corridor extent*** The ExA queried whether the Applicant intends to revise the **Land Plans [REP2-006]** to reduce the extent of land covered, in light of the evolving understanding of the substation's location. Mr Griffiths responded that the Applicant is actively reviewing the **Land Plans [REP2-006]** and considering whether assumptions can be made to reduce the area, acknowledging that the precise location of the substation remains unknown. Mr Griffiths confirmed the Applicant is prepared to take some risk in reducing the land area, but cannot yet confirm the extent of any reduction. Mr Griffiths further clarified that even once the substation application is submitted, flexibility must be retained until consent is granted. **Post hearing note:** As indicated in the CAH1, the Applicant has considered what further clarity it can provide in the draft DCO in relation to the permanent rights needed over the J G Pears Group land. The Applicant has considered whether the Land Plans could be amended in order to reduce the overall area of "blue land", however, given the uncertainty as to the location of the National Grid High Marnham Substation and the bay of the substation into which the Proposed Development's grid connection would need to connect, the Applicant is not able to further reduce the area of land, as it needs to maintain the required flexibility as set out in the CAH1. The

#	Agenda item	Written summary of Applicant's oral submissions
		Applicant is however able to specify a maximum corridor width for permanent rights for the cable, and the draft DCO has been amended at Deadline 3 to reflect that rights are sought for a corridor of width up to 20 metres. The permanent width required may be slightly less than 20 metres, however, that width has been chosen to ensure the Applicant can provide the commitment at this time. For complete clarity, It is noted that the temporary construction working width needed would be wider than the 20 metre corridor. **(Action Point 5)** ***Access constraints and indicative substation location*** The ExA noted that the only feasible point of access for the cable corridor appears to be from the northwest corner of the site, due to physical constraints such as the railway forming the northern boundary and a gap in the Order Limits at the northeast corner. Mr Daniel Boyd, on behalf of the Applicant, acknowledged this observation and confirmed that access is planned from the western edge of the blue land, via the highway and bridge. The ExA questioned the inclusion of the entire blue land area given the limited access points and the indicative location of the substation. Mr Griffiths reiterated that the substation location remains indicative and that the final red line boundary for National Grid's application is not yet known. ***Engagement and negotiation history*** Mr Griffiths, on behalf of the Applicant, responded to comments made by Ms Newell regarding the timeline of engagement with J.G. Pears. He stated that initial contact was made in July 2021, coinciding with the introduction of the One Earth project. Meetings between the parties took place throughout the remainder of 2021, with further engagement continuing in 2022, 2023, and into 2024. Mr Griffiths disputed the suggestion that discussions only commenced recently, asserting that the parties have been in dialogue over a sustained period. Mr Boyd acknowledged that only one formal commercial offer has been made to J.G. Pears to date. Following the rejection of that offer, J.G. Pears requested that a non-disclosure agreement (NDA) be entered into prior to further negotiations. He confirmed that the NDA terms have been broadly agreed and are expected to be signed by the end of the current week, after which commercial discussions will resume. Ms Newell confirmed that she was aware of the NDA's imminent signing and did not dispute the Applicant's position on that matter. ***Scope of CA powers*** In response to further comments made by Ms Newell regarding the extent of land currently identified for CA, Mr Griffiths reiterated the policy position that allows for separate applications for the generating station and the grid connection infrastructure. He emphasised that the One Earth project is classified as critical national priority infrastructure and carries significant weight under the National Policy Statement. Mr Griffiths argued that there is a compelling public interest case for the delivery of the 740MW renewable energy scheme, and that the ability to connect the generating station to the substation is essential. While the Applicant is reviewing the extent of the land required, he

#	Agenda item	Written summary of Applicant's oral submissions
		maintained that the public interest in delivering the project must be weighed against the potential for future development by J.G. Pears, which has not yet been formally proposed. Mr Griffiths concluded that, regardless of the final extent of the blue land, the case for CA remains justified in order to secure delivery of nationally significant infrastructure. **(a) Any section 102 or Category 31 persons wishing to make oral representations** Mr Griffiths provided an update on the separate discussions with Mrs and Mr Scott, as recorded above. ***Permissive path provision*** Mr Griffiths addressed the provision of permissive paths within the Application, responding to an earlier point in the hearing with respect to the benefits of the Proposed Development. A total of 6.1km of permissive paths are proposed, extending around the Order Limits. These paths are not existing public rights of way and are not currently accessible to the public. In locations where the highway lacks a footpath, the Applicant proposes to create new permissive paths on land adjacent to the highway. This will enable safe pedestrian access and facilitate circular walking routes without requiring pedestrians to walk on the highway itself. Mr Griffiths clarified that these paths are not part of the highway network but are new permissive routes being provided as part of the Proposed Development. ***Representation by Mr Craig Walker*** Mr Walker raised concerns regarding a private water pipe not listed in the Book of Reference. Mr Griffiths acknowledged that Mr Walker had been treated as a statutory consultee and that all relevant notices under section 42 and 56 had been issued. However, he committed to reviewing the Book of Reference to determine whether Mr Walker's interest should be formally recorded. If an omission is identified, the Book of Reference will be updated accordingly. **Post hearing note:** The Applicant's land referencing consultants have reviewed the relevant documents pertaining to the water pipe and can confirm that there is an agreement in place in relation to the flow of water and maintenance of the pipe dating back to 1958. An initial review undertaken as part of the due diligence exercise informing section 42 consultation and the Book of Reference concluded that this agreement did not confer any legal interest in land upon Mr Walker. Upon further detailed review, the Applicant can confirm that Mr Walker will be added to plots 14-010, 14-011, 14-012 and 15-014 in respect of an apparatus interest and rights of access. The owner of Moor Farm Barn will also be added to all of these plots with the exception of 15-014 which is located 'downstream' of the property. Although the Applicant does not believe that Mr Walker is the beneficiary of a formal easement over the aforementioned plots, a cautionary approach has been taken on the basis of the evidence available and legal doctrine. The aforementioned updates to the Book of Reference will be submitted at Deadline 4.

#	Agenda item	Written summary of Applicant's oral submissions
		Notwithstanding the above, the Applicant can confirm that Mr Walker and the owner of Moor Farm Barn have previously received all of the statutory notifications issued by the Applicant including section 48 and section 56 notices and so this update to the Book of Reference does not introduce any new affected persons to the examination process. **(Action point 8)** Mr Griffiths also clarified that the water pipe would have protection under the protective provisions included in Schedule 14, Part 1 of the dDCO, which provides protections for utility undertakers but which has been amended to also capture owners of private apparatus. The definition of "apparatus" under this schedule includes pipes owned by private individuals, meaning Mr. Walker's pipe would be afforded protection under the DCO. This includes provisions for replacement or safeguarding of the pipe in the event of any disturbance.
10	**Representations from statutory undertakers and updates on progress on protective provisions**	Mr Griffiths provided an update on the progress of protective provisions as follows. **The Canal and River Trust**: section 127 and 138 are engaged. However, the Applicant has now **agreed** protective provisions with this party for their benefit which are included in Schedule 15 of the latest version of the draft DCO as submitted at Deadline 2. On the basis of the protective provisions in place, the ExA and SoS can conclude that no serious detriment could be caused to the undertaking of this statutory undertaker. The Applicant considers that section 138 is 'passed' as rights and, where necessary, removal and replacement of their apparatus is required to ensure construction of the Scheme is able to be delivered and in any event is subject to the application of Protective Provisions in place. **Anglian Water Services, Environment Agency, Exolum, Northern Powergrid, Network Rail, National Grid Electricity Distribution and National Grid Electricity Transmission**: Section 127 and 138 are engaged. The Applicant remains in active negotiation with these parties as to bespoke protective provisions. Based on the current status of negotiations, the Applicant considers the protective provisions with each of these parties will be able to be reached by the end of Examination and will update the ExA in due course. Once agreed, the SoS can conclude that no serious detriment could be caused to the respective undertakings and Section 127 will be passed, as will Section 138 – the removal and replacement of their apparatus or right is required to ensure construction of the Scheme is able to be delivered. Mr Griffiths emphasised that, even in the absence of bespoke provisions, the general Protective Provisions already included in the draft DCO provide sufficient safeguards. These provisions ensure that statutory undertakers are duly protected in the event that their apparatus is affected. **EON UK Plc**: No objection has been received from these parties and as such section 127 is not engaged. Section 138 is engaged as their apparatus may be affected by the Proposed Scheme, however they benefit from the protections in Part 1 of Schedule 14 to the Order and so the power in s 138 will be subject to the PPs. The Applicant has requested if EON require bespoke protective provisions, however they have declined to enter into discussions. **EUNetworks Fibers UK and Openreach**: Section 127 is not engaged as they are not statutory undertakers. Section 138 is engaged as they hold relevant rights in accordance with the electronic communications code in respect of removal and/or replacement of their apparatus within the Scheme to enable construction. Protective provisions are included within Schedule 14, Part 2 of the Order to manage

#	Agenda item	Written summary of Applicant's oral submissions
		such impacts on their apparatus and so section 138 is satisfied. EUNetworks Fibers UK and Openreach have not engaged with the Applicant. **Trent Valley Drainage Board**: While the Scheme falls within its respective area of responsibility, sections 127 and 138 are not engaged as it is not a statutory undertaker as defined for those sections. However, the Applicant has included protective provisions at Schedule 14, Part 3 and is awaiting comments on these provisions from the Trent Valley Internal Drainage Board. These protective provisions provide appropriate controls in respect of the drainage interests held by these IDBs. Standard protective provisions have also been included for the benefit of Severn Trent and the Applicant is seeking confirmation that bespoke protective provisions will be required. **Post hearing note:** The Applicant was asked to provide an update on any unresolved issues with statutory undertakers under sections 127 or 138 of the Planning Act 2008 at the final deadline of the Examination. The Applicant is confident that all matters with statutory undertakers will be resolved prior to the final deadline of the Examination, but should it become apparent that they will not, the Applicant will provide an update on the implications of this at Deadline 8. The Applicant will continue to provide progress updates on these matters at each Deadline as part of updates to the Land Rights and Negotiations Tracker **(Action Point 9)**.
11	**The ExA will seek clarification on the position set out in the Land and Rights Negotiations Tracker [REP1-016]**	***Farhill Farming Limited and Strawson – option agreement status*** The Applicant confirmed that when the land now owned by Farhill Farming Ltd changed ownership, it was sold subject to the option, so the option remains on the land. That's the same position for Strawson and Farhill Farming Ltd. ***P&L Farming Partnership – negotiation status*** Ms Jenny Bennett, on behalf of the Applicant, clarified that P&L Farming Partnership has signed heads of terms and is currently progressing commercial negotiations in relation to the option agreement. Discussions are ongoing and are making good progress. ***New parties identified – Armstrong Solar, Clean Electricity Limited and Enso Green Holdings Ltd*** Mr Griffiths explained that a further round of due diligence via the Land Registry revealed unilateral notices registered against certain titles, indicating potential option agreements held by Armstrong Solar, Clean Electricity Ltd, and Enso Green Holdings Ltd. These parties were therefore added to the Book of Reference and the Land Rights Tracker for completeness. Mr Griffiths confirmed that these additional options do not conflict with the Applicant's own option agreement. The landowner has obligations under the Applicant's option agreement not to grant conflicting rights. However, as the Land Registry titles are extensive, it is possible that other options exist over different parts of the same title. The Applicant's option applies only to a defined portion of the title, and no conflict is anticipated. **Post hearing note:** Following further review, the Applicant has clarified that Armstrong Solar and Clean Electricity were already included in the Book of Reference prior to the additional due diligence exercised submitted at D1. The recent update identified changes to the registered addresses of these parties, which were subsequently reflected in the documentation. Their inclusion in the Land and Rights

#	Agenda item	Written summary of Applicant's oral submissions
		Tracker was therefore not a result of newly identified interests, but rather an administrative update to ensure accuracy and consistency across records. ***Network Rail Infrastructure – Protective provisions and side agreement*** The Examining Authority requested an update on Network Rail's representation (REP1-113), which sought protective provisions and a private agreement. Mr Griffiths confirmed that discussions with Network Rail are ongoing regarding both the protective provisions and the side agreement. Mr Griffiths expressed the Applicant's intention to conclude these negotiations prior to the end of the examination and committed to including the agreed protective provisions within the dDCO.

Appendix 1: Action Point 1

The Applicant took an action to provide a technical note summarising the oral statement made at this hearing, including calculating the efficiency of different battery types vs the amount of land that is required for them. The Applicant was asked to include how the derogation response details on generation totals relate to the BESS and solar panel relationship and the grid discharge.

The BESS area is impacted by several key aspects including but not limited to:

- Technology of equipment used
- The capacity and storage duration
- The fire safety and equipment spacing considerations
- The calculations of degradation of the batteries over time
- Reactive power capability

The below is a summary of each of these items and how it relates to the BESS area land sizing.

Technology

BESS technology is changing rapidly in several aspects, including improvements in fire safety and energy density. The BESS area identified for the Proposed Development is based on current generation of BESS technology at the time of submission of the DCO Application. The basis for this was lithium-Ion with current generation being based on Lithium Ion Phosphate (LFP), the advantages of which, in terms of fire safety, are outlined in the **Outline Battery Safety Management Plan (OBSMP) [REP1-059]**. The OBSMP also refers to the option of using "a similarly stable chemistry, with alternatives considered during procurement if deemed more suitable". This is due to the continually evolving technology landscape and as such the Applicant cannot commit to a specific technology prior to procurement activities and detailed design. The Applicant remains committed to maintaining the highest safety standards and that commitment is evidenced in the OBSMP.

Capacity

In terms of capacity the design in the west is based on 500MW capacity and 2000MWh storage, in the east 370MW capacity and 1480MWh storage, however up to a maximum of 740MW total as that is the grid connection limitation. The current layouts provide some flexibility in the location in terms of east or west due to the geographic constraints of locating all of the BESS in one location.

Equipment Spacing

The OBSMP also outlines the proposed battery equipment spacing between containers, in compliance with the latest issue of NFCC Grid Scale Battery Energy Storage System planning – Guidance for FRS (2022) which is 6m spacing. The standards may change in the future, however it is understood that this distance is unlikely to increase, making this spacing a worst-case assumption.

Degradation and Reactive Power Capability

BESS inevitably experience degradation over time, which reduces both their usable capacity and efficiency. This degradation arises primarily from two mechanisms:

- calendar ageing, which is the gradual loss of capacity due to chemical side reactions occurring regardless of use; and

- cycle ageing, which results from repeated charging and discharging. The rate of degradation is influenced by factors such as depth of discharge, operating temperature, charge/discharge rates, and the total number of cycles.

To account for degradation, BESS projects are typically designed with some level of oversizing at the outset. This ensures that even as capacity declines, the system can continue to meet its contracted performance obligations over the project life, this oversizing will also allow for the BESS to support the ongoing solar deployment by maximising the impact of the solar generation, as it will allow for the scheme to continue generation during times of grid curtailment. Additionally, it allows for periods of lower cost generation to be stored and dispatched when demand and cost is higher. This assists with the mitigation of more expensive forms of generation from being used to meet peaks in demand.

Reactive Power Capability

The UK Grid Code requires that BESS not only deliver their contracted active power but also provide reactive power support for voltage control. To achieve this, the inverter must have sufficient headroom to supply reactive power while simultaneously operating at the full active power limit set by the connection agreement. If the equipment were rated only to the level of the connection agreement, it would be unable to meet these reactive power obligations.

For this reason, the Applicant has allowed for the BESS to be sized with an apparent power rating slightly above the agreed active power export capacity. This ensures compliance with Grid Code requirements while maintaining the ability to fully utilise the connection agreement. In practical terms, the system is intentionally slightly oversized relative to the active power limit, not to increase export capability, but to guarantee that both active and reactive power requirements can be met simultaneously.

Solar panel relationship

The proposed BESS is intended to share the same grid connection as the co-located solar generating station. Given that both assets utilise a common point of connection, it is logical and efficient to size the BESS in proportion to the solar array in order to maximise the utilisation of the available grid capacity.

By aligning the scale of the BESS with the solar installation, the Proposed Development can ensure that export capacity generated by the solar PV is used more consistently across varying operating conditions. During periods of high solar output, the BESS can absorb surplus generation that would otherwise be curtailed, while at times of low solar output it can discharge stored energy to maintain stable export levels. This complementary relationship between the two technologies enhances the efficiency of the shared grid connection, reduces curtailment risk, and supports the wider objective of optimising limited grid infrastructure. Optimising the grid capacity is one way to meet government targets for clean energy without increasing consumer cost as much as possible.

Summary

The current sizing is seen as the current worst-case scenario for space. It allows for some flexibility in technology, geographic location (up to maximum of 740MW), equipment spacings based on latest fire safety guidance, consideration for degradation and reactive capability. If the space required for the BESS is reduced at detailed design, then the Works Plans allow for the areas to also be developed with solar areas instead as this would allow for the most effective use of the land within the Order Limits.

The spacing and maximum equipment sizes will be secured in the **Outline Design Parameters [REP2-022]** and/or the **Height Parameter Plan found in Site Layout Plans [APP-016]**.

one earth
solar farm

Contact

Name

Email

Number