GREEN HILL
SOLAR FARM

Green Hill Solar Farm

EN010170

The Applicant's Cover Letter for Responses to the Secretary of State's First Request for Information

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The Infrastructure Planning (Examination Procedure) Rules 2010

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Secretary of State for Energy Security and Net Zero
Department for Energy Security and Net Zero
3-8 Whitehall Place
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24th August 2026

Dear Secretary of State,

Green Hill Solar Farm – Submissions to the Secretary of State Application Ref: EN010170

This letter sets out the documents which are submitted by Green Hill Solar Farm Limited ('the Applicant') in response to the first Request for Information ('DEC') dated 10 August 2026 made by the Secretary of State for Energy Security and Net Zero ('the SoS').

Submitted Documents

Note: For revised documents, clean and tracked changes versions of each are submitted when appropriate

Ref or plan/ drawing number	Document Title
Draft Development Consent Order	
DEC/GH3.1_G	Draft Development Consent Order (Revision G)
Other Documents	
DEC/GH7.2_E	Outline Operational Environmental Management Plan (Revision E)
DEC/GH7.6_B	Outline Soil Management Plan (Revision B)
DEC/GH7.17_D	Concept Design Parameters and Principles (Revision D)
Examination Submissions	
DEC/GH8.1.10_F	Schedule of Changes to the Development Consent Order (Revision F)
DEC/GH8.1.54	The Applicant's Cover Letter for Responses to the Secretary of State's First Request for Information

Response to Request for Information

The Applicant's response to the matters set out in paragraphs 3-6 of DEC are as follows:

Habitats Regulations Assessment

3. Paragraph 7.2.99 of the Applicant's shadow Habitats Regulation Assessment [REP5-079] states that the measures detailed within Method Statement 13 of the outline Ecological Protection and Mitigation Strategy [REP7-017] will be followed in order to rule out an adverse effect of the Upper Nene Valley Gravel Pits Special Protection Area and the Upper Nene Valley Ramsar Site from operational disturbance. The Applicant is requested to update the outline Operational Environment Management Plan [REP6-043] to appropriately secure this mitigation, specifically for impacts during the operational phase, and to provide a copy of this to the Secretary of State.

In Response to the SoS's request set out in paragraph 3, the Applicant has updated the Outline Operational Environmental Management Plan **[DEC/GH7.2_E]** to include the measures stated in the Habitats Regulation Assessment **[REP5-079]** for measures within Method Statement 13 of the outline Ecological Protection and Mitigation Strategy **[REP7-017]** to be followed in order to rule out an adverse effect of the Upper Nene Valley Gravel Pits Special Protection Area and the Upper Nene Valley Ramsar Site from operational disturbance.

4. Natural England and the Environment Agency are invited to confirm that the Applicant's proposed mitigation in the outline Battery Storage Safety Management Plan [REP5-075] fully addresses their concerns regarding the waterborne pollution impact pathway to the Upper Nene Valley Gravel Pits Special Protection Area and the Upper Nene Valley Ramsar Site.

The Applicant understand that Natural England and the Environment Agency will respond individually to the SoS. The Applicant has made contact with both parties who have advised that their positions have not changed since examination. They are both in agreement with the Applicant and have confirmed that the outline Battery Storage Safety Management Plan **[REP5-075]** fully addresses their concerns regarding the waterborne pollution impact pathway to the Upper Nene Valley Gravel Pits Special Protection Area and the Upper Nene Valley Ramsar Site.

Use of Best and Most Versatile Agricultural Land

5. The Applicant is requested to provide further justification for concluding that approximately 4.3ha of land under the substation and BESS can be satisfactorily restored to its former Agricultural Land Classification ("ALC") Grade following 60 years under concrete hard standings.

This response:

(i) describes the works in section 1;

(ii) describes the principles and details of soil stripping and storage in section 2;

(iii) describes restoration practices in section 3; and

(iv) comments on the specific question in section 4.

The intention is that the BESS and substation areas will be restored to agricultural use following decommissioning, through the implementation of appropriate mitigation measures throughout all phases of the Scheme. The key principles which are further discussed throughout this response include:

1. Stripping of soils during the construction phase;
2. Stockpiling of soils during the construction phase;
3. Maintenance of soils during the operational phase;
4. Restoration of soils during the decommissioning phase; and
5. Aftercare.

In all areas where concrete plinths or foundations, or permeable stone surfacing, are proposed, the topsoil and, where required, subsoil will be stripped and stored appropriately for use in the restoration of these areas, details of which have been outlined within the response below.

1. The Works

The extent of the works defined by Work Nos. 2 (energy storage facility) and 3 (onsite substations) is set out in Schedule 1 of the **draft Development Consent Order (DCO) [DEC/GH3.1_G]**. The spatial extent of the substations and Battery Energy Storage System (BESS) is shown on the **Works Plans [REP6-003]** under Work Nos. 2 and 3, which are secured by Article 3 of the **draft DCO [DEC/GH3.1_G]**.

Work No. 2 (an energy storage facility)

As set out in the draft DCO, Work No. 2(b) comprises:

"a structure protecting the battery energy storage cells comprised in Work No. 2(a) and ancillary equipment, being either one container or multiple containers joined to each other, mounted on foundations or piling".

The foundation arrangements are also described in the **Concept Design Parameters and Principles [DEC/GH7.17_D]** under Table 2 of Section 2.2.

"The BESS containers will be mounted on foundations that are likely to be concrete although, alternative foundation solutions such as metal pile or ground screw pile may be used depending on ground conditions.

A reinforced concrete base foundation would be a maximum depth of 1.0 m. Alternatively, if a piling solution is required, piles to a maximum depth of 12.0 m would be used".

Work No. 3 (works in connection with onsite substations)

Under Work No. 3, foundations are identified under paragraph vii of Work Nos. 3A, 3B and 3C. Further details of the foundation arrangements are provided in the **Concept Design Parameters and Principles [DEC/GH7.17_D]** which state the following under Table 3 of Section 2.3:

"Onsite infrastructure will be mounted on a concrete base or monolith plinth to a maximum depth of 1.0 m. If a piling solution is required, piles to a maximum depth of 12.0 m would be used."

The assessment therefore adopts these parameters as the worst-case foundation depths. The actual foundation design may vary depending on ground conditions and detailed design requirements.

It should be noted that, where concrete foundations are used, it is not anticipated that the whole extent of the relevant Work No. area would be surfaced in concrete as can be seen below in **Figures 1A and 1B. Figure 1A** shows an example BESS in Suffolk where the units are supported on concrete pads surrounded by gravelled areas whereas **Figure 1B** shows an example BESS in Scotland where the units are supported on concrete slabs surrounded by an area of gravel.

Figure 1A: Photograph of Operating BESS in Suffolk

Figure 1B: Photograph of Operating BESS in Scotland

2. Principles and Details of Soil Stripping and Stockpiling

Soil Stripping

The key principles for successful restoration across the Sites will be to strip and store the topsoil and, where required, subsoil, and to protect and maintain this resource for reinstatement such that the soils can be restored to their previous condition and the land to its previous Agricultural Land Classification (ALC) grade.

During the construction phase the topsoil and, where required, subsoil will be stripped and stored under suitable conditions, with topsoil and subsoil stored in separate stockpiles. The principles for appropriate soil stripping and stockpiling is detailed within sections 5.4 and 5.5 of the **Outline Soil Management Plan (OSMP) [DEC/GH7.6_B].**

Soil stripping, handling, storage and reinstatement procedures will conform with the relevant guidance such as the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites[1] and the Good Practice Guide for Handling Soils in Mineral Workings[2] or any subsequent revision.

As outlined in Section 5.2 of the **OSMP**, a Soil Scientist will be appointed to provide training to relevant personnel involved in soil handling and management activities on the identification of topsoil, subsoil and soil types, and the undertaking of soil plasticity assessments. The Soil Scientist will also conduct site-specific toolbox talks on soil stripping and storage and will monitor and audit soil handling activities.

The detailed Agricultural Land Classification survey has recorded topsoil and subsoil thicknesses and soil characteristics across the Sites, as set out in the **Agricultural Land Classification Technical Report [APP-172]** which will inform detailed Soil Management Plan (SMP). The exact depths of topsoil and subsoil and soil types to be stripped and stockpiled separately will be defined in the detailed SMP.

Soils will be handled when in a dry and friable state, or on the assumption they have passed the tests for soil plasticity assessment for soil handling suitability, as set out in the **OSMP [DEC/GH7.6_B]**. All soil handling works will be controlled by a detailed SMP, secured by Requirement 19 in Schedule 2 of the **draft DCO [DEC/GH3.1_G]**.

Topsoil and subsoil stripping across different soil types (textural groups) will be undertaken to ensure the clean separation of these resources. **Figure 2** is an extract from the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. A similar approach will be followed for the stripping of subsoil.

[1] Department for Environment, Food and Rural Affairs (DEFRA) (2009). Construction Code of Practice for the Sustainable Use of Soils on Construction Sites

[2] Institute of Quarrying (2021). Good Practice Guide for Handling Soils in Mineral Workings

Figure 2: Excerpt from the Construction Code of Practice – Topsoil Stripping[3]

Method

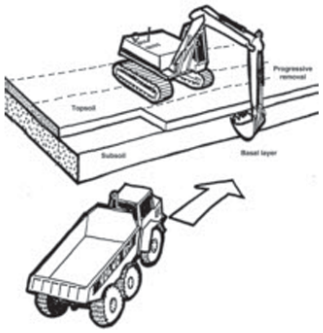
Remove surface vegetation by blading off, by scarification and raking, or kill off by application of a suitable non-residual herbicide applied not less than two weeks before stripping commences.

The method illustrated below is the preferred method for minimising damage to topsoil. It shows the transport vehicle running on the basal layer under subsoil as subsoil is also to be stripped. If only topsoil is to be stripped, the vehicle would run on the subsoil layer.

Stripping should be undertaken by the excavator standing on the surface of the topsoil, digging the topsoil to its maximum depth and loading into site or off-site transport vehicles.

Alternative stripping methods that can be shown to afford the same degree of soil protection are acceptable.

An archaeological watching brief might have to be accommodated during topsoil stripping.



Stockpiling

Topsoil, subsoil and different soil types (textural groups) within both the topsoil and subsoil will be stored separately, in managed bunds, as described in the Defra Construction Code of Practice. Soil will be placed into long-term storage (stockpiles) only when in a non-plastic state. As described in the Defra Construction Code of Practice, wet soils would be allowed to dry before being placed in long-term storage stockpiles, see **Figure 3**.

The stockpile will be managed to stop the establishment and growth of woody vegetation, and the specification and management of these bunds will be set out in the detailed Landscape Ecological Management Plan which is secured by requirement 7 in Schedule 2 of the **draft DCO [DEC/GH3.1_G]**. An example of long-term solar farm soil bund is shown in **Figure 4** below.

[3] Department for Environment, Food and Rural Affairs (DEFRA) (2009). Section 5.2 Topsoil Stripping. Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

Figure 3: Excerpt from the Construction Code of Practice – Soil Stockpiling[4]

Soil stockpiling

Soil should be stored in an area of the site where it can be left undisturbed and will not interfere with site operations. Ground to be used for storing the topsoil should be cleared of vegetation and any waste arising from the development (e.g. building rubble and fill materials). Topsoil should first be stripped from any land to be used for storing subsoil.

Method 1 – Dry non-plastic soils

The soil is loose-tipped in heaps from a dump truck (a), starting at the furthest point in the storage area and working back toward the access point. When the entire storage area has been filled with heaps, a tracked machine (excavator or dozer) levels them (b) and firms the surface in order for a second layer of heaps to be tipped. This sequence is repeated (c & d) until the stockpile reaches its planned height. To help shed rainwater and prevent ponding and infiltration a tracked machine compacts and re-grades the sides and top of the stockpile (e) to form a smooth gradient.

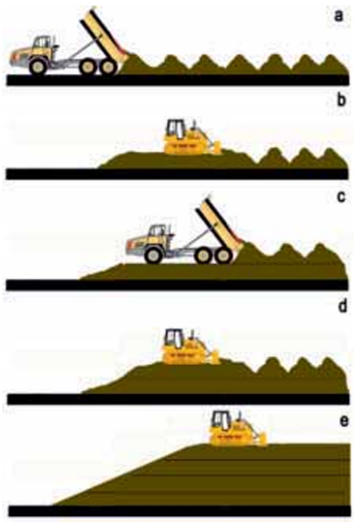


Figure 4: Example of Long-term Soil Bund

Soil stored in managed bunds can be stored long-term while remaining viable and suitable for subsequent restoration. Soil handling will conform to published guidance, including the Good Practice Guide for Handling Soils in Mineral Workings which, whilst now accepted as guidance covering any soil handling during construction, has been based on the requirement to set out how soil which has been stripped and stored long-term on mineral sites can be successfully restored to agricultural use.

[4] Department for Environment, Food and Rural Affairs (DEFRA) (2009). Section 5.4 Soil Stockpiling. Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

As such, UK guidance and restoration practice, particularly from mineral workings, landfill restoration and other major infrastructure projects (such as High Speed 2), supports the principle that agricultural soils can be stripped, separately stored, replaced and restored to agricultural use where soil resources are properly characterised, handled under suitable moisture conditions, protected from compaction and contamination, reinstated in the correct sequence, and subject to aftercare. These are the principles which have underpinned the development of the mitigation strategy and **OSMP [DEC/GH7.6_B]** for this Scheme.

The soil microbial activity near the centre of a bund will reduce whilst in storage but is expected to recover on restoration. To minimise the extent of changes to the soil during storage, stockpiles will be kept as low as practicable, with maximum stockpile heights set out in the detailed SMP.

Published research on stockpiled topsoil supports this precautionary approach. Studies of stockpiled sandy topsoil[5] used in restoration have shown that some beneficial soil biota, including arbuscular mycorrhizal fungi, can remain present or begin to re-establish in soils stored for up to 10 years, although some microbial groups may be adversely affected by storage duration. Research on longer-term and deeper soil stockpiles from mine[6] sites has shown that stockpiling can cause depth-related changes in redox conditions, organic matter dynamics and microbial communities, but that a mitigation approach such as proposed for this Scheme, namely separate stripping and storage of soil resources, low and managed bunds, control of compaction and anaerobic conditions, reinstatement in the correct sequence, reconditioning and aftercare can enable soil functions to recover following restoration.

As set out in the **OSMP [DEC/GH7.6_B]**, reinstatement will include a period of reconditioning to restore a structured, uncompacted and well-aerated soil profile. A period of aftercare will also be implemented, including checks and monitoring to confirm that the soils are recovering following placement.

3. Principles of Restoration

The principle of restoration is to replace the stripped topsoil and, where removed, subsoil in the locations from which they were stripped, recreating soil layers of the same thickness and in the same order, so that the soils are restored to their previous condition and the land to its previous ALC grade. Soil reinstatement will be undertaken when the soils are in a suitable condition for handling, i.e. when they are dry and friable. Principles of soil reinstatement are outlined within Section 5.6 of the **OSMP [DEC/GH7.6_B]**.

A detailed SMP will be required during decommissioning to reflect weather, soil and land conditions at the time, to ensure the Sites returned to their original use and condition as far as practicable. The approach to soil management during the decommissioning phase is outlined in Section 5.9 of the **OSMP [DEC/GH7.6_B]**.

[5]Birnbaum et al. (2017), Topsoil Stockpiling in Restoration: Impact of Storage Time on Plant Growth and Symbiotic Soil Biota. Ecological Restoration, **35** (3) 237-245
[6] Fischer et al. (2022), Impacts from Topsoil Stockpile Height on Soil Geochemical Properties in Two Mining Operations in British Columbia: Implications for Restoration Practices. Mining **2** (2) 315-239

Prior to any reinstatement, the quantity and characteristics of available soils should be assessed, and the soil profiles being reinstated will be designed to ensure the soils to be restored to their previous conditions and land to be restored to their previous ALC grades.

Once all infrastructure has been removed, where subsoil has been stripped, this will be replaced and the area levelled. Prior to subsoil placement, the underlying surface will be assessed to determine the level of compaction and/or anaerobism and to identify whether ripping is required to break up and aerate the surface; this will include the assessment of whether the addition of coarser material, such as sand, would assist in addressing any identified compaction issues.

Where subsoil has not been stripped, this will also be assessed to determine whether ripping or cultivation is required before topsoil placement. Loosening and placement of subsoil layers will be undertaken in phases such that, once loosened, any tracking over is minimised to avoid the layers becoming recompacted.

Topsoil will then be replaced to its original thickness. An extract from the *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites* illustrating this approach is provided at **Figure 5**.

The Subgrade 3a soil will have been stored separately from the Subgrade 3b soil and will be restored to the appropriate area from which it was stripped.

As already noted, the **OSMP [DEC/GH7.6_B]** (Section 5.7) includes a requirement for an aftercare period, recognising that following soil replacement there will be a period of settlement and a requirement to allow natural processes, including root growth, soil faunal and microbial activity, wetting and drying, and freeze-thaw, to fully operate again to re-establish a healthy and resilient soil. Remediation will be implemented where necessary. Aftercare measures will focus on identifying and rectifying issues such as compaction, poor drainage, inadequate soil depths, or nutrient imbalance deficiencies/imbalances.

It is likely that a grass crop will be the most suitable form of management during the first two to three years while the soils recover. However, this will depend on the conditions at the time of restoration and will be specified in the aftercare plan.

Figure 5: Excerpt from the Construction Code of Practice - Restoring Soils[7]

Loose-tipping method

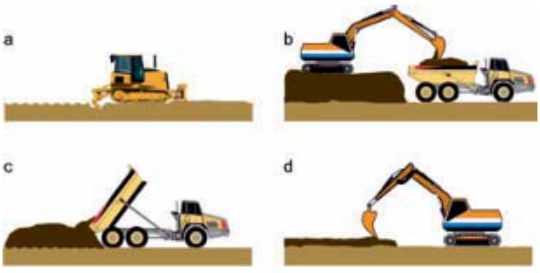
This method entails working to a strip system (the width of the strip determined by the reach of the excavator), and replacing soil sequentially across the soiling area. The receiving ground, whether a basal layer or compacted subsoil is first loosened with a wing-tine ripper.

A hydraulic excavator, fitted with a toothed-bucket to avoid excessive smearing, should be used to load the soil materials from the source area or stockpile into a dump truck which then discharges them onto the receiving surface. An excavator stands next to the newly dropped soil and spreads this to the required thickness. If there is to be more than one soil layer (i.e. if both topsoil and subsoil are being replaced) then the whole length of the strip is restored with subsoil before the process is repeated with topsoil. The topsoil is lifted onto the subsoil without the excavator travelling on the newly placed subsoil. Only when the strip has been completed is the next one started.

If soil is cloddy in structure, the excavator bucket can be used to break up the clods. Large stones can be removed during the operation.

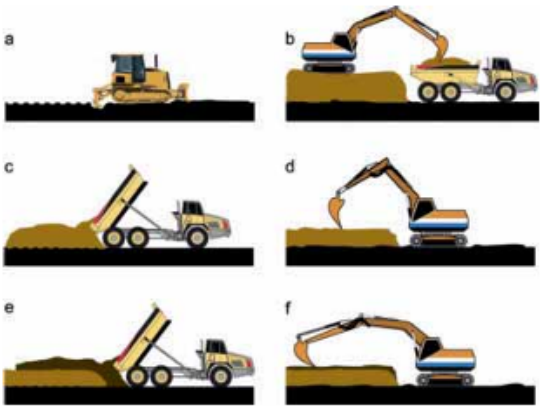
Modified versions of the loose-tipping method, for use when both subsoil and topsoil are to be placed, include spreading the subsoil as described above but then spreading the topsoil layer out using a low ground pressure dozer. Providing that soil conditions are suitably dry and dozer movements are minimised, this can gently consolidate the placed soil without causing over-compaction.

The loose-tipping method (topsoil spreading only)



a) loosening the subsoil of the receiving ground
b) loading of topsoil from stockpile
c) backtipping topsoil onto loosened subsoil
d) levelling topsoil

The loose-tipping method (topsoil and subsoil spreading)



a) loosening the substrate of the receiving ground
b) loading of subsoil from stockpile
c) backtipping subsoil onto loosened substrate
d) levelling subsoil
e) backtipping topsoil
f) spreading topsoil over subsoil using excavator working on substrate

4. Response to the Question Raised by the Secretary of State

Restoration of agricultural land where topsoil and, where required, subsoil have been stripped and stockpiled to its previous ALC grade is intended to be achieved through the measures set out in the detailed SMP, which will be based on the **OSMP [DEC/GH7.6_B]**. This includes appropriate soil stripping, storage, handling and reinstatement practices, together with an appropriate aftercare period.

[7] Department for Environment, Food and Rural Affairs (DEFRA) (2009). Section 6.1 Soil Placement. Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

The approach aligns with good practice guidance (developed in part to guide restoration of soils in long-term storage on mine and mineral sites) and focuses on the careful stripping and storing of soils during the construction phase, maintenance of the stored material during the operational phase, restoration when conditions are right (in particular that the soils are dry and friable) and implementing a period of aftercare to ensure restoration is successful. Whilst it is recognised (based on published research) that some soil characteristics will change during long-term storage, the proposed measures will ensure these can be reversed through the implementation of restoration and aftercare measures.

Based on the implementation of these measures, it will be possible to restore soil characteristics and land grades satisfactorily. An aftercare period will be implemented following return of the land to allow natural processes to occur across the restored land and to ensure the re-establishment of healthy and resilient soil.

Protective Provisions

6. The Applicant and National Grid Electricity Transmission Plc are requested to provide updates regarding whether protective provisions have been agreed. If agreement has not been reached, provide the reasons why, and when agreement is expected to be reached.

The Applicant and National Grid Electricity Transmission Plc (NGET) are close to agreement on the form of protective provisions. The Applicant has included within the **draft DCO [DEC/GH3.1_G]** revised protective provisions for NGET. These are agreed, save for the definition of "acceptable insurance".

The Applicant and NGET have been unable to agree the amount of insurance that must be maintained during the 'use' of the Scheme. It is the Applicant's position that £20 million of insurance is the appropriate level of insurance for use of the Scheme, increasing to £50 million when any maintenance works are carried out, whilst NGET is seeking £50 million to be maintained during all periods.

The protective provisions require that acceptable insurance is in place in relation to any of the "authorised works" (being the authorised development as set out in Schedule 1 to the draft DCO, and any works approved under the protective provisions), to the extent that they are specified works. A specified work is one that is within 15 metres of NGET apparatus, may in any way adversely affect any NGET apparatus, or is referred to in a guidance note on the avoidance of danger from overhead lines.

The Scheme includes a number of specified works where underground cabling crosses NGET overhead lines, and where the grid connection cable enters the Grendon Substation. The Applicant understands that the request for £50 million of insurance to be maintained during the 'use' of the Scheme relates to the proximity of the BESS (Work No. 2) and the 400kV substation (Work No. 3A) to Grendon Substation.

The locations within which Work Nos. 2 and 3A may be constructed are laid out within the **Works Plans [REP6-003]**. The edge of these Work Nos. is a minimum of 47.5 metres from the fenceline of Grendon Substation. This is significantly beyond the 15 metre radius for which any work will be a specified work, meaning it will only be a specified work if it could adversely affect NGET's apparatus.

Paragraph 4.1.18 of the outline **Battery Safety Storage Management Plan [REP5-075]** confirms that emergency response plans must define a potential debris impact radius of 100 feet (30.5 metres); previous BESS incidents show a 25 metre maximum radius to be typical.

A detailed Battery Safety Storage Management Plan must be approved by the relevant planning authority in consultation with the Northamptonshire Fire and Rescue Service and the Environment Agency prior to the construction of Work No. 2. This is secured by Requirement 6 in Schedule 2 to the draft DCO.

The distance between the BESS and NGET's Grendon Substation avoids the risk of adversely affecting the Grendon Substation. The Applicant understands that the requirement for the higher level of £50 million of insurance to be maintained during use is on the basis that the BESS and 400kV substation will, through their use, pose a risk to NGET's infrastructure.

As set out above, the distance and the implementation of a detailed Battery Storage Safety Management Plan ensure that the BESS and substation do not pose an ongoing risk to NGET's infrastructure during their use.

The drafting of the protective provisions is such that the insurance must be in place where there is *any* use of a specified work. As noted above, the grid connection cable would therefore trigger the requirement for insurance. However, the Applicant understands that the requirement for £50 million of insurance during use is solely related to concerns around the proximity of the BESS and substation, and not the use of the grid connection cable. As set out above, appropriate distance has been incorporated into the design of the Scheme to avoid impacts to NGET's infrastructure from the BESS and substation.

The Applicant therefore considers that a requirement for £20 million of insurance to be in place during use, increasing to £50 million during any maintenance, is appropriate and proportionate to the interaction between the Scheme and NGET's apparatus which is primarily in relation to underground cables.

Changes to the draft Development Consent Order

The Applicant has provided an updated version of the draft Development Consent Order. The changes consist of corrections and clarifications, as well as an additional modification of existing legislation in direct response to comments made by Natural England in respect of another DCO Examination. The changes are explained in full in the Schedule of Changes to the **draft DCO [DEC/GH3.1_G].**

The Applicant considers that the above, and supporting submissions, satisfactorily provide the additional information as requested by the SoS in their letter of 10 August 2026.

Please do not hesitate to contact us using the details provided below if you have any questions.

Yours sincerely,

[redacted]

[redacted]
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