

Application by Green Hill Solar Limited (“the Applicant”) for an Order granting Development Consent for the proposed Green Hill Solar Farm (“the Green Hill Solar Farm Project”) ALL INTERESTED PARTIES – INVITATION TO COMMENT

Letter dated 10th August 2026 where the Secretary of State asked the below Interested Parties to confirm their concerns indicated below had been fully addressed.

Habitats Regulations Assessment

‘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’

In the Statement of Common Ground between the Applicant and the Environment Agency **(see Issue ID: HYD-09) [REP7-036]**, the EA requested the inclusion of several additional safety measures in respect of attempting to prevent any waterborne pollution impact pathway to the Upper Nene Valley Gravel Pits Special Protection Area and the Nene Valley Ramsar Site. These were namely, the inclusion of an impermeable liner, automatic and manually operated shut-off valves to isolate drainage, procedures for gravel cleaning and removal, and the removal of batteries where necessary. The Environment Agency also insisted in being a named consultee in relation to the approval of the Battery Storage Safety Management Plan under **Requirement 6** of the Draft Development Consent Order **[REP7-005]**.

As a result, the Environment Agency has stated in their response that they are satisfied that in the event of a fire, there would not be a pollution impact pathway generated.

This is a disappointing and unsatisfactory response from the EA given the enormous International significance of the SPA and RAMSAR sites and the potential devastating ecological consequences should the proposed mitigation prove inadequate.

It also completely overlooks the **airborne** aspect of water pollution impact pathway in the event of a fire in the BESS.

The Applicant relies heavily on **automated and manual isolation valves** designed to seal the BESS compound during an emergency. This is not fool proof. Real-world evidence from local flooding as recently as 2024, establishes that heavy rainfall in the Nene Valley creates highly turbid, sediment-rich, and debris-laden runoff from surrounding agricultural land.

(Photographic evidence has previously been submitted by STOP Green Hill Solar and Grendon Parish Council to this effect). This silt-heavy surge causes mechanical blinding (clogging). A continuous wash of mud and vegetative debris passing through the site's drainage channels has a high probability of physically obstructing or jamming automated gate valves. If a valve fails to form an airtight seal due to debris blockage, thousands of

gallons of toxic firewater (containing hydrofluoric acid and chemical residues) will escape straight into Grendon Brook and the Ramsar wetland network.

The Environment Agency also mandated the inclusion of **an impermeable liner** in order to capture any contaminated waters, and prevent them passing into the water courses or soaking into the aquifer only **3m to 9m** below the site, and which is connected directly to the surrounding waterways.

The Applicants cover letter response **ref DEC/GH8.1.54** shows scant or no regard for this consideration (the impermeable liner) as the Applicant went into great detail to explain that the BESS units might be sited on concrete plinths 1.0m thick, or indeed, may well be on metal piles driven **12m** into the ground.

In response to the SOS letter dated August 10, 2026, re BMV soil restoration which asked; *'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.'*

The Applicant responded in their cover letter **ref DEC/GH8.1.54**

Work No. 2 (an energy storage facility) "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 (substations) "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."

Clearly, the option of piling to a maximum depth of 12.0 metres would;

- a) negate the efficacy of the impermeable liner as it would be penetrated and
- b) Compromise the Aquifer lying underneath the entire site, only **3m to 9m** below the surface, therefore allowing potential toxic contamination into the **Internationally Protected Waterways**.

Unmitigated Airborne Pollution

The Applicant has completely failed to sufficiently account for airborne pathways of toxic chemical dispersion potentially contaminating the SPA and RAMSAR waterways.

In the event of a fire, the current OBSSMP states the NFRS are expected to employ a defensive strategy i.e. only boundary cooling should be employed for cooling of adjacent BESS or associated supporting equipment, for a 4 hour period. It does not model what would happen if there was a **concurrent event** such as the floods of 2024, nor does it adequately model the toxic plume that will continue to be expelled into the atmosphere as the fire continues to burn out, possibly several days later.

The applicant's modelling evaluates gaseous dispersion (such as Hydrogen Fluoride and Carbon Monoxide) in isolation, treating the atmosphere purely as a transient medium. It completely fails to account for the generation, aerial transport, and subsequent deposition of heavy metal nano-particles resulting from a thermal runaway event.

Please refer to the representation from Professor Peter James Dobson, OBE, BSc, PhD, MA, Emeritus Professor of Oxford University and former Strategic Advisor on Nanotechnology to the UK Research Council.

A world-renowned pioneer in Nanoparticles and Atmospheric Diffusion

Who clearly stated in his representation; **ref EN010170-000792-SGHS.BESS.1**

*'The BESS is close to the River Nene and to wetlands and SSSI, the Ramsar site and SPA sites downstream and noxious fumes could contaminate the surrounding farmlands and nesting sites of passing flocks. This is a very environmentally sensitive area and in the event of a fire, the firewater must be contained properly and disposed of safely after removal of contaminants. "Fluorinated compounds in the **fumes and the firewater** are toxic – even in small amounts – and have a long lifetime in the environment, which could last for decades." **The Applicant does not seem to appreciate the gravity of such issues and the planning authority and the Government need to be aware of this.'***

Further Empirical evidence from the [Moss Landing BESS fire](#) in January 2025, in California, established that grid-scale battery failures generate massive smoke plumes heavily laden with sub-micron nano-particles of heavy metals, including nickel, manganese, and cobalt. At Moss Landing, this resulted in nano particles of heavy metals raining down onto nearby wetlands via atmospheric deposition, **bypassing all proposed physical ground containment**. Scientific studies of the disaster mapped roughly 25 metric tons of heavy metal particulate matter spread across approximately 1.2 square kilometres of wetlands, up to **2 miles away**. This learning, together with Professor Dobson's further examples, well documented, have inexplicably not been incorporated into the DCO.

Should a battery fire occur, as the proposed site at Grendon rests within a low-lying, damp river valley prone to high humidity and precipitation, these airborne heavy metals will very probably undergo wet deposition, washing directly into Grendon Brook, local agricultural drainage ditches, and the open waters of the Upper Nene Valley Gravel Pits Special Protection Area (SPA) and RAMSAR site.

Once deposited, these transition metals bind to aquatic sediments, threatening the entire aquatic food web, directly endangering the protected avian species for which the SPA was designated. **Under the Conservation of Habitats and Species Regulations 2017.**

If '**reasonable scientific doubt**' remains regarding adverse impacts on a **European Protected Site**, which it clearly does, (because the applicant has failed to provide a quantitative particle-size distribution emission inventory or an airborne heavy metal deposition model), at the very least, we would ask the Secretary of State to **defer determination** and demand a comprehensive Particulate Deposition and Ecological Bioaccumulation Assessment before this application can be legally considered and to seek further world leading expert guidance from Professor Dobson.

The guarantees of "zero waterborne pollution" The Applicant claims are theoretical abstractions built on "perfect world" engineering models. They fall apart when exposed to Grendon's demonstrated flood history, complex hydrogeology, and the airborne realities of a BESS fire event in extremely close proximity to the Nene waterways.

Given the irreversible, catastrophic ecological consequences of a toxic chemical release into an Internationally Protected Ramsar site and shallow aquifer, the **Precautionary Principle** must apply. Because **absolute containment cannot be guaranteed**.

Referring to the letter from the Secretary of State dated 28th August, 2026

Battery Storage Safety Management Plan

‘NGET’s response [C1-005] to the Secretary of State’s letter dated 10 August 2026 raised concerns about fire risks arising from Work No 2. NGET requested that Requirement 6 of the draft Development Consent Order to be amended to require NGET to approve the battery storage safety management plan. NGET is requested to provide its preferred drafting of requirement 6 and to highlight any precedents in previously consented orders.

The Applicant is requested to provide justification why it considers NGET should not be part of the approval process for the battery storage safety management plan, including any precedents in previously consented orders.’

The Applicant has responded in their cover letter **DEC/GH8.1.55** that due to the ‘*strict safety measures built into the design of individual BESS units, with the layout and exact unit safety requirements informed by large scale fire testing. The measures in the OBSSMP ensure that there is **no credible risk** to NGET’s assets from the BESS in the areas of Work No. 2 near to Grendon Sub-station.*’

Under no circumstances can that claim be justified **at this stage**. Not least because, there are **NO specific design details** in the OBSSMP, **no details as to the battery technology**, **no detailed plume study** of heavy metal nano particles and **no details of the amount of energy storage capacity in MWh**. i.e. the amount of energy to be stored.

This is **essential information** needed to assess what the consequences of a failure could be. Simply put, the more energy stored, the bigger the potential failure. It is also paramount that the level of energy stored will determine whether **Hazardous Substances Consent (HSC)** will be required for transportation, installation and operation of the BESS.

NPS EN-1, Section 4.12 makes it clear that the Developer should consult with the relevant authorities **during** the consenting stage **NOT post consent**.

Against this backdrop it is completely understandable and necessary that NGET should seek an amendment to **Requirement 6** in the DCO in order to be consulted in the final BSSMP.

Whilst the Applicant rather dismissively states

‘NGET is the statutory undertaker for electricity transmission assets, and it would not be expected to possess any relevant expertise in relation to BESS and BESS safety. The consultation feedback that NGET could provide would be very limited in scope and unlikely to be relevant.’

The Applicant chooses to avoid the central point:

In the same way the Applicant recognises that;

‘The Environment Agency are able to provide expert advice on whether the design of the BESS meets its requirements to ensure that, in the event of a fire, wider contamination of the environment would not occur.’

Clearly, the extremely close proximity of Grendon BESS to the sub-station is unusual, maybe unprecedented and unequivocally, NGET as the statutory undertaker for electricity assets

would also need to ensure that the final BSSMP would meet its requirements in order that, in the event of a fire, NGET assets, on-site personnel and the transmission of electricity to the wider population was not disrupted or endangered and that a potential cumulative disaster may be avoided.

The Applicant has **no firm connection agreement** for the proposed BESS other than a gate 1 ATV, and **absolute containment cannot be guaranteed** at this stage, for the reasons stated. The Applicants 'desk research' hasn't even remodelled the empirical evidence from the recent exceptional floods of 2024, rather they have relied on EA data from 2013.

Alongside the above, given that the consequences of toxic chemicals entering the proximate Internationally Protected waterways could be catastrophic, together with the failure to address HSC, means critical fire and pollution hazards have **not been subjected to site-specific worst-case modelling**.

Leaving these statutory hazardous substance details to be resolved post-consent bypasses proper examination and **violates EN-1 policy**.

Under these circumstances, I urge the Secretary of State to give **great weight** to these arguments and **exercise the Precautionary Principle**. At the very least, the decision on the DCO should be deferred until the Applicant re-submits more current and accurate information re the BESS which will aid a better judgement to be made by all.

Cllr Martin Howell

RR [REDACTED]