Rosefield Energyfarm Ltd

Written Representation concerning Applicant's Application for a Development Consent Order

Interested Party: [redacted]

Summary & Conclusions

1 The need for renewable energy is accepted and it is understood that sites are needed to accommodate it. However, the site selection process adopted is flawed and has been subject to *post hoc* rationalisation. This has resulted in a design involving inefficient use of land and the need to install solar panels on north-facing slopes, unsuitable for such schemes.

2 The case for need has not been made. Assignment of Gate 1 status for the BESS element reflects the current status of the required storage capacity having been satisfied.

3 Site selection fails to comply with key requirements NPS EN-1.

4 Methodologies for assessing residual impacts of the development on a range of receptors lack transparency and require further explanation; some appear purely subjective.

5 The application fails to understand the importance of agriculture to local communities and to the wider implications for the national and local economies.

6 The impact of the development on agriculture has been grossly underestimated. In particular, the potential impact on an agricultural business and its sister biotech company has serious implications for the NHS and dependent pharmaceutical and biotech companies.

7 The impact on a skilled workforce allied to local agriculture has been underestimated.

8 The risk of flooding has been underestimated. Reliance on a modelling study from a planning application for another BESS development suggests undue confidence on a study that has not been independently audited.

9 The application does not address the potential impacts of extensive soil stripping on local hydrology.

10 The local PRoW network is the most valued and widely used recreational amenity for local residents and visitors. Proposed mitigation intended to minimise visual impacts by screening would of itself change the landscape and create limited, low value views.

11 The negative impact on the settings of conservation areas and individual heritage assets located in elevated positions (including views from and into those receptors) has not been afforded appropriate value.

12 Further archaeological investigations are required before a decision on risks to hidden heritage assets can be made with confidence.

13 The level of noise generated, both during construction and operation, has been underplayed. Impacts on non-human receptors and cumulative impacts with other developments have not been addressed.

14 Where ecological surveys have been undertaken, they are not always complete. A significant omission is failure to survey areas within the Order Limits, but outside Parcels 1, 1a, 2 and 3, means that there is no understanding of existing habitats in 30% of the Site and, hence, the scope to receive displaced species from developed areas. Extrapolation from surveyed areas to non-surveyed area is not an acceptable approach.

13 Of particular concern is the displacement of the county-level populations of ground-nesting birds, especially skylarks, and the impacts on rare species of bat.

14 Estimates of GHG emissions are incomplete. Emissions associated with the loss of energy due to round-trip inefficiencies in operation of the BESS have not been accounted for.

15 Analysis of the Applicant's plume study is incomplete in that it focusses only on toxic gases and their possible impacts on residential receptors. This should be expanded to include particulate emissions from a thermal runaway event and their impacts on livestock and wildlife in addition to human receptors.

16 The impact of construction traffic on the fabric of local roads and the well-being of other users has been underestimated. The methodology for determining residual impact is questioned.

17 The cumulative impacts with other schemes resulting from construction traffic have not been assessed.

18 Assessment of cumulative impacts with other infrastructure projects is too limited in scope and superficial in its execution. Scoping out the proposed replacement National Grid substation on which the Applicant's scheme depends is not supportable. A more detailed assessment of cumulative impacts, adopting a wider scope across all aspects of the proposed development, is requested.

19. I submit that, against a background of projected capacities for solar and BESS being satisfied, the residual impacts not addressed by the mitigation hierarchy in the Applicant's case and the substantial, exceptional circumstances are such that they are not outweighed by the claimed benefits of the scheme.

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Source documents referred to in this document can be provided for review.

1. Statement of Need and Site Selection

1.1 It is acknowledged that the Overarching National Policy Statement, EN-1 sets out the Government's conclusion that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure to meet the Clean Power 2030 Mission and net zero. This has prompted a large number of speculative applications for electrical infrastructure projects that seek to contribute to the net zero target. However, it has become apparent that the number of proposals for schemes far exceeds the estimated capacity for electricity generation and storage (NESO Connections Reform | National Energy System Operator). This has prompted a review which aims to prioritise projects that are both needed and are ready for development. It is my understanding that the Rosefield project has provisional Gate 2 status for the solar element (awaiting confirmation Q326) but Gate 1 status for the proposed battery energy storage scheme (BESS).

1.2 Policy Statement **EN-1** (2025; Para 3.3.63) states that, "*it is likely that the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy, in all but the most exceptional circumstances*."

1.3 I submit that, for the present case, the residual impacts not addressed by the mitigation hierarchy and the substantial, exceptional circumstances are such that they are not outweighed by the claimed benefits of the scheme.

1.4 In 2019 it was estimated that nearby Milton Keynes had approximately 300 ha of warehouse and industrial buildings. The area has expended dramatically since that time. This offers a huge opportunity for installation of solar panels without the need to occupy valuable agricultural land. What consideration has the Applicant given to such alternatives?

1.5 The Applicant has a stated connection date of 2031 (i.e. post the 2030 net zero target date) and it remains to be seen whether, assuming NESO confirms the scheme as included on the Gate 2 priority list, the provisional connection date is retained. In any event, connection is dependent on construction of a replacement National Grid substation, for which a planning application has yet to be submitted. Although the Applicant acknowledges this, it does not feature in many of the assessments that underpin the application. As such, the need for and the security and timing of connections to the transmission network for the solar and BESS elements remain uncertain.

1.6 Para. 4.1.7 of EN-1 states, "*This presumption [i.e. that the need case will outweigh the residual effects not capable of being addressed by application of the mitigation hierarchy], however,* ***does not apply to residual impacts which present an unacceptable risk to, or interference with, human health*** *and public safety, defence, or irreplaceable habitats.*"

1.7 In the following sections, I set out reasons why I consider that **exceptional circumstances** apply such that, were the scheme to be approved, there would be significant and serious impacts, nationally as well as locally, **including those to human health.**

1.8 Para. 4.3.15 of NPS EN-1 states that, "*Applicants are obliged to include in their ES, information about the reasonable alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the*

environmental, social and economic effects and including, where relevant, technical and commercial feasibility."

1.9 This is not the approach taken by the Applicant. Rather, selection of the development site was predicated on proximity to the East Claydon National Grid substation and the willingness of a single, principal landowner to provide land for development. Case history suggests that these are not, of themselves, sufficient grounds for acceptance of a site. No other site appears to have been considered and the rationale for choice of site appears to have been adopted retrospectively.

1.10 This approach has imposed significant constraints whereby the topology of the Site has necessitated locating solar panels in areas, such as north-facing slopes, that are less efficient in terms of land use and conversion of solar energy. National Policy EN-3 (Para. 2.10.11) recognises that topology plays an important apart in irradiance levels and, hence, efficiency of conversion of solar energy. The efficiency then determines the true carbon savings, a point not addressed by the Applicant.

1.11 The approach to site selection also brings it into conflict with areas of ecological importance, including SSIs. The potential negative impacts of the proposed development, of which there are many, do not appear to have influenced site selection. Rather, negative aspects have been minimised in a *post hoc* rationalisation of the scheme.

1.12 Para. 4.7 2 of **EN-1** states, "*Applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible."*

1.13 I submit that the proposed scheme is not compatible with this aspiration for reasons given in the following sections.

1.14 The case for battery storage as part of the proposed scheme is not made, as is reflected in the Gate 1 status for the BESS element.

2. Methodology

2.1 As a general point, the nature of methods adopted for determination of harm introduces a bias that tends to underestimate the level of impact. 'Professional judgement' is frequently used to arrive at a level of significance.

2.2 By way of example, assessment of impact of construction traffic (**APP-058**) adopts a four-point scale for Receptor Sensitivity (High, Medium, Low, Negligible; Table 15.8). Magnitude of Impact is assessed using the same scale (Table 15.10). Here, the analysis becomes highly subjective because the definition of points on the scale is based on phrases such as '*considered to be material'* and '*important but not likely to be material factors in decision making'*.

2.3 It is evident that the Applicant's consideration of materiality is likely to be very different from that of a cyclist, pedestrian or equestrian using what is currently a relatively quiet country lane. The Applicant's assessment of 'Significance' of effect is then based on a matrix table (Table 15.11) which is heavily influenced by the subjective view of Magnitude of Impact. This results in the impact of construction traffic on roads,

recognised as High sensitivity, being judged as Minor/Not Significant which a simple sense check would indicate is an implausible outcome.

2.4 The use of limited 3- or 4-point scales to assess impacts introduces a bias where there is too sharp a distinction between the extremes, where 'Moderate' magnitude tends to imply a small magnitude impact which, in turn, leads to underestimation of the true impact and its significance.

2.5 Too often, 'professional judgement' is used as the final arbiter in determining impacts of the development on a particular receptor. In reality, this is no more than a subjective opinion which, invariably, leans in favour of the Applicant. I would expect to find a more objective approach.

2.6 It would be helpful to have the Applicant's justification of the methods employed and their assessment of the adequacy of the scales used.

3. Agriculture and the Community

3.1 The Site defined by the Order Limits lies at the heart of a series of rural communities with strong interdependencies on agriculture. Agriculture has also shaped the landscape. In marked contrast to many areas of the country, small fields and extensive hedgerows are features of the local Landscape Character Areas. Many of the fields retain ridge and furrow profiles dating back to the Medieval period.

3.2 The Applicant has assessed the Site as principally Grade 3b (**APP-055**). Para. 12.10.10 states that "*As the land take is only temporary, the magnitude of impact for Grade 3b land take will also be minor. Therefore, the significance of the residual effect on Grade 3b land will be slight adverse and not significant*." I **disagree** with this statement.

3.3 The Applicant's assessment of the impact of the proposed development on agriculture in **APP-057** notes (Paras 14.5.48-50) that of 652.02 ha of land within the Order Limits are under agriculture, woodland blocks, etc.

3.4 It goes on to conclude that the impacts of permanent removal of 451 ha and temporary removal of 226 ha from agricultural use (a total 0f 677 ha; Para 14.8.17) amounts to loss of **0.65% of the county-wide** agricultural land. Based on the Applicant's own figures, a true measure of impact is calculated as 677/652.02 =**103.8% of the land currently under agriculture, woodland blocks etc. within the Order Limits**.

3.5 The duration of the 'temporary' land take would be in excess of four decades. The actual duration for land to be returned to agriculture is likely to be longer than that given the sensitivity of clay soils to compaction and damage to soil structure.

3.6 The residual effect is not limited to removal of land for agriculture in preference for industrial development; it is measured in terms of loss of livelihood for tenant farmers, loss of skills built up over generations, loss of food production, loss of pedigree herds and loss of habitats. For the individuals involved, it could be judged as effectively permanent.

3.7 Para. 12.10.11 (**APP-055**) states, "*As all the soils identified across the Site are either a fine loamy or clayey topsoil with clayey subsoils …. all soils within the Order Limits have a medium resilience to damage during handling and are therefore of medium sensitivity. The magnitude of impact for soil ecosystems will also be minor. Therefore,*

the significance of the residual effect on soil ecosystems will be slight adverse and not significant."

3.7 This is not a widely accepted view. Clay soils have high capacity to sequester organic carbon, thus providing an important carbon sink. This is also linked to their water-retaining capacity (*Prout et al., (2022). Changes in organic carbon to clay ratios in different soils and land uses in England and Wales over time. Nature: Scientific Reports; 12:5162).* Clay soils are particularly sensitive to compaction by heavy machinery and suffer damage when worked in wet conditions.

3.8 In a report to the Welsh Government (*ADAS (2023); The impact of solar photovoltaic (PV) sites on agricultural soils and land. Work Package Three: Review of Impacts*), the authors concluded that installation of solar panels resulted in:

- Overall loss of topsoil following soil stripping;
- Erosion of soil caused by rivulets from rainwater run-off from solar panels;
- Reduced sequestration of carbon;
- Reduced biomass beneath solar panels;
- Compaction from machinery.

3.9 In terms of reversibility, it was concluded that compacted ground takes 18-25 years to recover with the aid of agricultural machinery but 100-150 years unaided. Thus, restoration of the Site to productive agriculture may not be possible until 2100. Loss of topsoil may not be recoverable because its distribution across the site renders it difficult to identify.

3.10 Local farmers are skilled in the management of the predominantly clay soils and avoid working the land during much of the winter period when there is a high risk of compaction and damage to soil structure. The ADAS 2023 report suggests that the effective working period to avoid damage to clay soils is late April-early December. Has the Applicant factored this in to their estimate of the duration of the construction period?

3.11 The Applicant's grounds for claiming reversibility of effects on soil warrant further explanation.

3.12 The Applicant rejects comments in Relevant Representations that the proposed development would result in the industrialisation of the landscape. However, (e.g.) at Page 248 of PDA-006 the Applicant states, *"It is acknowledged that the character and appearance of the landscape within the Order Limits would therefore change from arable farmland to a utility-scale Solar PV development. The effect on landscape character would arise principally from a change in land cover; ostensibly the introduction of new Solar PV modules, Satellite and Main Collector Compounds, BESS, Rosefield Substation and ancillary infrastructure such as fencing and CCTV into fields which are currently in agricultural land use."*

3.13 A simple internet search for 'solar energy plant definition' yields the result, *A solar power plant is a large-scale**, industrial facility** that converts sunlight directly into electricity, usually to supply the utility grid.*'

3.14 The issue is not limited to the visual impacts of the scheme. Apart from permanently changing the landscape, eviction of tenant farmers to allow development to proceed deprives the area of skills developed over generations, as well as loss of food production.

3.15 Management of livestock is seriously compromised in an industrial setting. Exposure of livestock to noise, dust, movement of heavy plant, a workforce unfamiliar with the sensitivities of animals and inherent biosecurity risks, together with their displacement, especially during construction, would place unacceptable stress on animals and, hence, risk to the businesses dependent upon them.

3.16 The Applicant's approach to agricultural landholdings is as a commodity. There is little consideration of the importance of agriculture in the area or how it operates. **APP-130**, which lists commercial operations and businesses within the Community Study Area, makes no reference to any agricultural business.

3.17 The list at **APP-130** even fails to include Preston Farms which, together with its sister company TCS Biosciences Ltd, generate products that provide a unique, central and irreplaceable pillar to the NHS, pharmaceutical and biotech industries. Any interruption to this combined business, even on a temporary basis, would be catastrophic, putting at **serious risk** the prompt **diagnosis of bacterial and fungal infections in patients** across the health services as well as disrupting microbiological and cell culture-based research programmes in the pharmaceutical and biotech industries.

3.18 I return to the point at (1.5) above whereby EN-1 states, "*This presumption [i.e. that the need case will outweigh the residual effects not capable of being addressed by application of the mitigation hierarchy], however,* ***does not apply to residual impacts which present an unacceptable risk to, or interference with, human health*** *and public safety, defence, or irreplaceable habitats.*" I suggest that careful and correct analysis of the true impacts of the proposed development on businesses of critical importance to public health nationally, as well as the national and local economies, is central to the determination of this application.

3.19 Given the importance of agriculture and allied businesses in the area, it is surprising that impacts of the proposed scheme have not warranted more detailed analysis. Table 14.21 of **APP-057** assesses '*Areas of land in which the enterprise is wholly reliant on the spatial relationship of land to key agricultural infrastructure and access between land and key agricultural infrastructure is required on a frequent basis (daily)'* as **Very High Value/Sensitivity.** I **agree** with this assessment.

3.20 For Agricultural businesses and landholdings, Table 14.22 of **APP-057** assesses, '*Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements, e.g. direct acquisition and demolition of buildings and direct development of land to accommodate highway assets; and/or introduction (adverse) or removal (beneficial) of complete severance with no/full accessibility provision*' as **Major Magnitude** of Change. I would expect this to be the assessment made for the businesses affected within the Order Limits.

3.21 Table 14.23 of **APP-057** provides a matrix of significance criteria. For assessments of **Very High Value/Sensitivity** and **Major Magnitude** of Change, one would draw the conclusion from Table 14.23 that this would yield a Significance level of **Very Large**.

3.22 I **do not agree**, therefore, with the conclusion at Para. 14.10.6 that, '*based on the indicative likely change in employment and agricultural land during the construction phase, there is likely to be a* ***minor magnitude*** *of change on a* ***medium value (sensitivity) receptor*** *(the agricultural economy of Buckinghamshire) resulting in a direct, temporary (in some cases leading to permanent)* ***slight adverse (not significant)*** *effect.'*

3.23 I **agree** with the conclusion at Para. 14.10.10 that the value (sensitivity) of the agricultural land holdings as a receptor is **Very High** but disagree with the statement that and the **magnitude of change** expected at this operation is **Minor**. Therefore, I **disagree** with the comment that there is likely to be a temporary or permanent **Slight Adverse residual effect** on agricultural businesses and landholdings, which is considered to be **Not Significant**. On the contrary, the temporary and permanent residual effects would be **Major** and **Highly Significant.**

3.24 The socio-economic effects of the proposed scheme are presented in the DCO submission as positive, especially in terms of temporary employment during the construction period. However, this is likely to involve a largely peripatetic workforce. The consequences for local agriculture, tenant farmers and businesses **critically dependent** on agriculture do not appear to have been considered in appropriate detail or with the seriousness they deserve. Further, the cumulative impacts with other infrastructure projects are a major concern.

3.25 Proposals for grazing sheep alongside the solar panels is widely recognised as a barely viable option. The quality of grass is too low to support lambs, it is difficult to identify ailing animals and rounding them up is challenging. Grazing of cattle requires panels to be elevated and on strengthened supports, rendering them intrusive and expensive.

4. Flood Risk

4.1 The **Overarching National Policy Statement for Energy (EN-1) 2023** requires that a site-specific flood-risk assessment should be undertaken for energy projects of greater than one hectare, irrespective of the Environment Agency (EA) Flood Zone classification. In assessing flood risk, the application places heavy reliance on the EA Flood Zone designations, despite the fact that the EA has made clear that no modelling of the area has been undertaken and that documentation of historic flood events is wholly dependent on any reports they receive.

4.2 Whilst the areas designated as Flood Zones 2 and 3, especially those in Parcel 3 of the Site, are noted in the application, there does not appear to have been a detailed site analysis of local conditions and the actual risk. Local residents are familiar with frequent flood events across the area, many leaving parts of the PRoW network impassable and deep water at points on East Claydon Road, rendering it hazardous.

4.3 The EA made extensive comments on the Applicant's original submission on flood risk (**RR-081**).

4.4 The Applicant has submitted additional reports on flood risk assessment at **PDA-004** and **PDA-005**. Para. 2.7.4 of **PDA-004** indicates that a site visit occurred in May 2025, which was noted as being a particularly dry period. It would be helpful to know whether this was the only visit and to what extent the Applicant has undertaken surveys of ground conditions during the winter period when flooding and waterlogged areas are common.

4.5 The Applicant's additional approach to flood risk assessment includes adoption of results from a modelling study undertaken for the Statera BESS planning application (23/03875/APP) on a nearby site, rather than commissioning their own Site-wide study.

4.6 It would be helpful if the Applicant could clarify whether they have undertaken independent analyses of flood risk, based on the model adopted by Statera in support of Planning Application 23/03875/APP, or whether only the results of the Statera study have been used.

4.7 The EA's comments on the Statera planning application are pertinent here. The initial submission had relied on EA flood zones to determine flood risk. This was rejected by the EA as inadequate on at least two occasions. The Applicant subsequently commissioned a modelling study, the results of which were accepted by the EA but with the following caveats:

"Flood risk modelling undertaken by a third party has been used in support of this application and the Environment Agency has applied a risk based approach to the assessment of this model. In this instance a basic review has been carried out. The Environment Agency has not undertaken a full assessment of the fitness for purpose of the modelling and can accept no liability for any errors or inadequacies in the model."

4.8 *The EA goes on to say, "Please be aware that although we have raised no objection to this planning application on flood risk grounds, this should not be taken to mean that we consider the proposal to have passed the Sequential Test."* (**Letter dated 30 October 2024 from the Environment Agency to Buckinghamshire LPA; 23/03875/APP**).

4.9 I submit that it is important to understand to what extent the Applicant for the present DCO submission has undertaken a critique of the modelling study and why further analysis of the cumulative effects of the Statera BESS and National Grid substation developments have not been factored into their adoption of the model. The Statera study excludes the majority of the Rosefield Site and so extrapolation from a limited study (for which the EA made clear is at Statera's risk) would appear to be a high-risk approach. The flood risk analysis fails to recognise that local flooding in the area around Parcel 3 is the result of overtopping of the Claydon Brook and its tributaries which the Applicant's proposed surface water management proposals do not address.

4.10 It is noted that Para. 3.2.11 of **PDA-005** has been revised to say that the Statera (East Claydon BESS) modelling was undertaken for the 1 in 100 year plus ~~**11**~~ 30% [*sic*] climate change storm event, equivalent to the 2050s 'Upper~~**Higher**~~' [sic] scenario. This is incorrect. 11% was the figure adopted by Statera (see **2.4.1 Peak River Flow Allowances** in **23/03875/APP**; East Claydon Battery Energy Storage System: Flood Risk Assessment (Part 1); 24 September 2024). It should be noted also that, assuming a connection date for the Rosefield scheme in the early 2030s, a 40-year operational period takes it into the 2070s for which a 30% uplift should be applied. Indeed, Issue ID: EA07 of the EA's **RR-081** suggests that a higher central and upper climate change allowance for the **2080s** epoch should be considered.

4.11 The Applicant counters this point at Para. 3.2.15 with the suggestion that only the decommissioning phase would occur in the 2080s. It is assumed that the Applicant would continue to have responsibility for flood risk management until decommissioning is complete and the landholdings returned to their original owners, if that is the agreement.

4.12 Clarification of the Applicant's use of the Statera modelling approach would be helpful.

4.13 The Applicant's response to **RR-068** questioning the suitability of the proposed AIL access route being across Field SA56 in EA Flood Zone 3 (p572; **PDA-006)** is

superficial and fails to address the concerns expressed. It is also confusing in that it suggests that for routine maintenance, access into Parcel 3 would be via Orchard Way, which cannot be the case.

4.14 What steps has the Applicant taken to ensure the viability of the access route for AILs from East Claydon Road and what provision will be made to cross the Claydon Brook?

4.15 In response to concerns made in RRs regarding the impact of the proposed scheme on flood risk (p585; **PDA-006)**, the Applicant has stated, "*Any ancillary infrastructure would be provided with appropriate drainage measures, ensuring that post-development runoff rates and volumes do not exceed existing conditions. As such, the proposal would not increase flood risk on-site or elsewhere.*"

4.16 Given that existing run-off rates commonly lead to flooding, and that various aspects of the development will result in large areas of impermeable surfaces, what is the evidence that attenuation ponds will have sufficient storage capacity to prevent flooding during major storm events?

4.17 The Applicant's response at p584 of **PDA-006** to **RR-068**, which expressed concerns over the impact of soil stripping on run-off rates, states, "*The Proposed Development would not involve widespread soil stripping*." This is at variance with the statement at Para 12.8.5 of **APP-055** that**,** "*The construction process will involve soil stripping, excavation, and temporary storage of topsoil and subsoil."*

4.18 Soil stripping is planned across large areas, such as those for the scheme's substation (Fields E11 and E20) bordered by Flood Zones 2 & 3, and the BESS in Fields D8 and D9, where there are issues with water emergence and flooding of the road even during dry weather. Soil stripping will serve to reduce water absorption capacity and so is likely to increase flood risk.

4.19 It is noted at p70 of **PDA-004** that tests confirmed that infiltration is **not** a viable means of surface water drainage. Soil stripping would further reduce infiltration capacity.

4.20 It is suggested that the possible impacts of soil-stripping on flood risk need to be addressed in more detail by the Applicant.

4.21 Para. 3.8.2 of **PDA-004** indicates that where identified, existing land drains will be replaced or diverted. It is important to note that land drainage in the predominantly clay soils is managed by a matrix of mole drains and conventional land drains, plus open ditches. It is highly unlikely that mole drains would be identified and so they would be destroyed during construction works.

4.22 It would be helpful to know what steps the Applicant will take to identify and replace mole drains to ensure effective land drainage.

4.23 Para. 3.10.8 suggests that run-off rates will be limited to 4 $l.sec^{-1}$ and discharged into the Claydon Brook. The central, local issue underlying flood events is the over-topping of the Claydon Brook and its tributaries and so the suggestion of limiting run-off rates to current levels would not reduce the risk of flooding. Indeed, by directing outflows to focussed points of discharge into the brook is likely to exacerbate the situation at the point of discharge.

4.24 What detailed hydraulic studies have been undertaken to demonstrate how the proposed swales will contain run-off during a 1 in 30-year storm event without causing on-site or off-site flooding?

4.25 Para. 3.10.3 concludes that approximately 25.4 ha of solar panel installations would be at risk of flooding. This raises further questions as to whether the terms of the Sequential Test have been satisfied. Para. 4.2.1 goes on to say that, to ensure compliance with the Exception Test, it is necessary to raise the height of the panels by 1,800 mm in areas of fluvial risk (Works Plans **APP-009** (sheets 6 and 7) and in the Design Commitments **APP-039**). This suggests that the design constraints have been introduced as a result of a site selection process driven by the convenience of a tract of land available in single ownership. A consequence of this is the need to raise the height of the solar panels adds to their visual intrusiveness.

4.26 The same argument applies to the Substation, BESS, ITS, Independent Outdoor Equipment (transformer, switchgear and central inverters) and Collector Compounds which, as described at Para. 4.2.4, '*would be constructed on level platforms, once the land within the areas has undergone 'cut and fill'. These methods will both raise the vulnerable components above the current ground levels.'*

4.27 Para. 5.1.2 notes that Section 5.8.15 of NPS **EN-1** includes requirements for a flood risk assessment (FRA), should include:

'Consider how the ability of water to soak into the ground may change with development, along with how the proposed layout of the project may affect drainage systems.

Consider the effects of a range of flooding events including extreme events on people, property, the natural and historic environment and river and coastal processes;'

4.28 It goes on to say:

'Given the temporary nature of solar PV farms, sites should be configured or selected to avoid the need to impact on existing drainage systems and watercourses.'

4.29 The application focusses on the risk of flood to the scheme's own infrastructure. It leaves unanswered these key points from NPS EN-1, does not address possible impacts on receptors outside the Order Limits or on users of PRoWs within the Site boundaries or the cumulative impacts with other developments.

4.30 It would be helpful to have the Applicant's explanation of these points.

5. Residential and Recreational Amenity

5.1 Villages surrounding the proposed site are generally small with limited facilities. Some have one or more shops, a school, church, village hall and a bus service contributing to their infrastructure and amenities. Others have far more limited facilities. Botolph and East Claydon have, between them, a school, a church and village hall but no shop or bus service. They are served by a network of country lanes. Middle Claydon village has no facilities other than a specialist school.

5.2 A key amenity shared by the villages is the open landscape interspersed by areas of ancient woodland. Public Rights of Way (PRoWs) provide the principal recreational activity for the majority of residents. Longer distance links pass directly through the Site. These include:

- Bernwood Jubilee Way: a 61-mile walking and cycling route circling the former Royal Hunting Forest of Henry II. Sections 5 & 6 of the route (Claydons and

Claydon Woods; Quainton to Finemere Wood) lie within the Order Limits. It passes through or alongside **Parcels 1 and 2** of the Site.

- North Buckinghamshire Way: a 35-mile route from the Ridgeway (south of Great Kimble) to Wolverton. It passes through **Parcel 3** of the Site.
- Midshires Way: Approximately 230 miles long, it links Bledlow in Buckinghamshire to Stockport in Greater Manchester. It shares part of the route of the North Buckinghamshire Way and passes through **Parcel 3** of the Site.
- National Cycle Network (NCN) 51 'Varsity Way – Oxford to Cambridge'. This runs west-east to the north of the Site. However, the Claydons present a popular diversionary route to take advantage of the scenery.

5.3 The PRoWs are used extensively by walkers, cyclists and equestrians. They may be considered as the 'jewel in the crown' for local residents and visitors. They are valued for not only for their landscape value but they offer changing scenery, tranquillity, connection with a vast range of fauna (including many at-risk species) and flora as well as farm livestock. The sound of skylarks is a particular feature of the area.

5.4 The value of the PRoW network includes significant benefits to physical and mental health. This has been particularly important during periods of disruption such as lockdown during the Covid pandemic and following damage to the road network and loss of countryside associated with the HS2 and EWR projects.

5.5 The Applicant's approach to evaluation of the harm caused to the PRoW network has been undertaken on a 'silo' basis across a number of reports. As mentioned under Section 2 (Methodology), the use of scoring systems with 3- or 4-point scales introduces an automatic bias. The use of 'professional judgement' to determine significance of impact removes any sense of objectivity.

5.6 PRoWs are not experienced by their users in separate categories such as landscape, extent of view, sound, smells, wildlife, changing seasons, or elevation, nor are the experienced from a single viewpoint. Rather, it is a combination of many factors, experienced in a dynamic fashion as one progresses along the path. The ridge-top locations of the settlements and undulating topography means that the proposed development would be visible from many aspects.

Panels 1-3 above. Views from Sion Hill (ECL/4/1, ECL/5/1 [Midshires and North Buckinghamshire Way]) looking towards Granborough across Fields SA46, SA48-50 (cable routes), E23 (solar panels), E21 (solar panels and collector compound) and E11, E20 (solar and substation up to 15 m high).

5.7 By adopting this 'silo' approach to assessment of impact with individual elements presented in different reports, the Applicant has failed to identify the true scale of the effects on users of PRoWs.

5.8 By way of example, in one area, a wider view of the landscape may be lost because hedges have been allowed to grow to 4 m as 'mitigation' but out of keeping with the rest of the landscape. At another point, rows of solar panels may be clearly seen in the distance, transforming the landscape, or the path may pass between lines of security fencing with CCTV cameras, solar panels or a substation the dominant view beyond.

5.9 The result is PRoWs transformed from tranquil spaces that reveal new landscapes, the sound of birds and a sense of the changing seasons, into an incongruous, industrialised landscape.

5.10 I suggest that a more realistic assessment of the impact of the proposed scheme on the PRoW High sensitivity receptors would be to assess each one in turn, consider **all** factors that contribute to its current level of recreational amenity value (including how it relates to other PRoWs), and then arriving at a single determination of impact and its significance.

6. Heritage

6.1 The area around the proposed Site has a rich heritage. Seven settlements with existing conservation areas would be impacted by the development:

- Botolph Claydon
- Middle Claydon
- North Marston
- Oving
- Quainton
- Winslow

6.2 The boundaries defining Botolph Claydon have been subject to a recent review and a draft Conservation Area Appraisal and Management Plan is currently being evaluated by Buckinghamshire Council.

6.3 East Claydon does not currently have Conservation Area status. However, it has 11 Listed structures and additional non-designated heritage assets, including clear evidence of a former Medieval platform village (East Claydon earthworks East Claydon Medieval Earthworks - Buckinghamshire's Local Heritage List). A Conservation Area Appraisal and Management Plan has been drafted and this is also being evaluated by Buckinghamshire Council.

6.4 Copies of the draft Conservation Area documents can be made available for inspection.

6.5 The value of heritage assets lies not only in their intrinsic qualities but also in their settings. The Conservation Area of Botolph Claydon sits on a ridge with panoramic views across the valley below and to the Quainton Hills beyond. The elevated position means that views both from and into the Conservation make a substantial and important contribution to its value. The proposed solar energy installation would dominate those views. It would detract significantly from the settings of the Conservation Area overall and the large number of heritage assets embodied within it.

6.6 Examples of such views are provided in the panels below.

View north-west from Claydon Road towards Bernwood Farm (included in the Botolph Claydon Conservation Area review) across Fields D6, D44, D45 (designated for solar panels). Adjacent fields to the west (D7-D9) would have further solar panels plus the BESS.

Looking south from position indicated by the red spot (inset). Fields in view include D3-4, D7-9, D10-19, D26, D44-5 (Solar panels, BESS and Satellite Collector Compound).

View from the Mushroom Shelter (Non-designated Heritage Asset) towards Fields E23 (solar panels up to 4.5 m) and SA46-50 (cable connection corridor).

View towards the south from a point adjacent to Botolph Farmhouse (Grade II Listed) towards Fields D6-7, D44-5 (solar panels) and D8-9 (BESS). A similar view is experienced from the upper floors of Botolph House (Grade II* Listed).

6.7 I submit that the Applicant has placed insufficient weight on the nature and extent of the impact on the settings of heritage assets.

6.8 The archaeological surveys undertaken by the Applicant have helped to reinforce our understanding and the extent of hidden heritage assets across the area.

6.9 Together with the Applicant's findings at **APP-108**, archaeological investigations for other projects (23/03875/APP & 25/01297/APP) adjacent to the Site have provided evidence of extensive Iron Age, Roman and Medieval activity and settlements. These have been combined in the figure below.

Combined results of geophysical studies for Statkraft BESS, Rosefield solar and Statera BESS projects. White lines are unidentified archaeological profiles; yellow lines are probable ditches, possibly associated with former Roman Road. Profile top centre was identified as possible Iron Age/Roman ladder settlement. Red dot is believed to be to be site of a fire pit. (Redrawn from corresponding reports for planning applications). Not to scale.

Inset: Proposed route of Roman road (Margary 162).

6.10 The proposed route of a former Roman road passes (north-south) through the Site (Parcel 3). Circumstantial (geophysical) data provide some corroboration of this route (yellow lines on the figure below).

6.11 It will be noted also that Fields SA51-59 and E20-22 within the Order Limits have not been surveyed. These may hold key information about the location of the Roman road and other artifacts of heritage value. It is imperative, therefore, that these are subject to detailed archaeological investigation in advance any decision to proceed with a development programme.

7. Disturbance from Noise, Light and Dust

7.1 Para. 1.4.7 of **APP-034** concludes, "*Therefore, the Statement demonstrates that no statutory nuisance effects are considered likely to occur. The construction, operation (including maintenance), and decommissioning of the Proposed Development is not expected to cause a statutory nuisance."*

7.2 This is a further example where the Applicant's methodology leads to conclusions that are, at best, surprising. Whilst it may be a correct conclusion that there would be no *statutory* nuisance, the degree of disturbance, both during construction and operation requires further examination.

7.3 **APP-034** and **APP-138** refer to 'sensitive receptors' but, apart from some generic references to human and ecological receptors, watercourses and roads, there is no clarity as to the full range of receptors to be considered, (for example are farm livestock, bats or other wildlife included?), the extent of their susceptibility to noises of different types (volume, frequence, intermittent of constant, time of day).

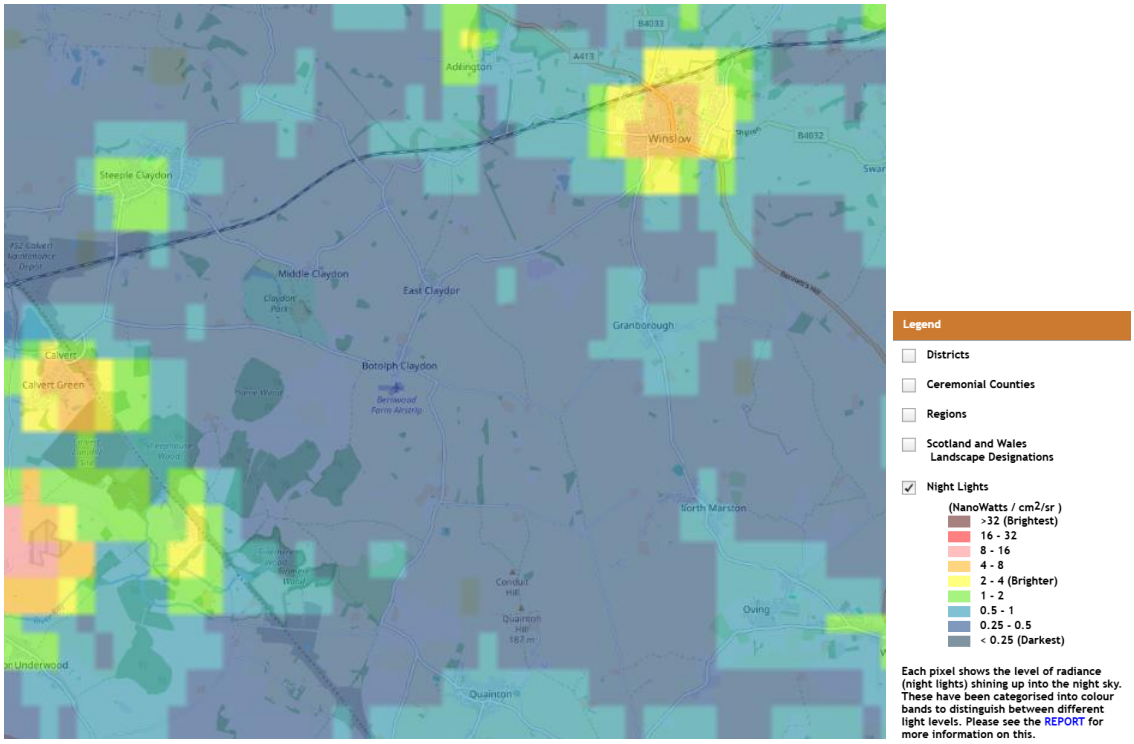
7.4 It would be helpful if the Applicant could provide greater clarity on these points.

7.5 Experience from works associated with the HS2 and EWR projects is that numerous activities, such as piling during construction, could be heard from some kilometres away. It is disingenuous to suggest that noise disturbance would not be a significant factor both within and outwith the Order Limits.

7.6 Inverters, transformers and cooling systems all generate noise at varying frequencies that are highly intrusive. During the operation phase, users of PRoWs as well as residents would be subject to significant levels of noise which would be highly disruptive in an area known for its tranquillity. The noise is also likely to affect both farm livestock plus other species, such as bats and owls, critically dependent on particular frequencies of sound for navigation and foraging.

7.7 A much-valued feature of the area is dark skies. This affords extensive views of stars and even, on occasion, the Northern Lights across the area defined by the Order Limits, as shown by the 'Dark Skies Map' at Fig. 1 below.

7.8 Although the Applicant assets that sympathetic lighting schemes would be adopted, the illuminated parts of the development would be in prominent positions, seen from the ridge-top settlements around the Site and dark skies would be lost



CPRE Dark Skies Map showing that the proposed development site benefits form the lowest level of light pollution. (England's Light Pollution and Dark Skies).

7.9 The cumulative impacts of the scheme with other infrastructure projects, potentially, are very considerable. This requires further evaluation.

8. Ecology

8.1 In their response to concerns expressed in **RR-068** and **RR-071** that by limiting ecology surveys to the principal development parcels (1, 1a, 2 & 3), statements of baseline status were incomplete, the Applicant responded at Page 427 of **PDA-006**, "*The cable routes have been subject to Ecological Appraisal and habitat survey as outlined in ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2] [APP-050]. It is correct that the only area where detailed species-specific survey work has not occurred is the cable route corridor as the impacts would be short-term and temporary, and sufficient detail has been gained from the extensive species-specific surveys on adjacent parcels of land to be able to robustly assess the potential effects of the cable route works. It is the Applicant's view that the survey data collected, some of it covering multiple survey years, is more than sufficient to inform the ecological assessment.*"

8.2 This appears internally contradictory. The cable routes appear to have been assessed through extrapolation from the surveys of the four parcels and so there is no real data to inform baseline conditions or, importantly, scope for displacement of species from the developed areas. 'Ecological appraisal' by extrapolation is not a robust approach.

8.3 The position is exacerbated by the paucity of data for Parcel 3 which means that there is no clear basis for making judgement about the entire eastern aspect of the Site

which includes the Claydon Brook and its tributaries. These provide important wildlife corridors.

8.4 This becomes particularly important when considering cumulative residual impacts with the Statera BESS and proposed replacement National Grid substation which would occupy adjacent parcels of land, all of which are aggregated around the Claydon Brook and its tributaries.

8.5 Further doubts over the robustness of statements on baseline status are raised by comparing wintering bird surveys conducted in 2021-2 and 2023-4 (Para. 5.6.2 **APP-097**) reproduced in the following table.

Wintering Bird Species	Count 2021-2	Count 2023-4
Fieldfare	149	742
Linnet	5	133
Meadow pipit	45	24
Skylark	45	187
Snipe (Parcel 1)	104	49
Yellowhammer	32	58

Note that between-year counts vary by 1.8- to 26-fold.

8.6 Whilst wintering bird populations don't automatically translate into breeding bird populations, the figures provide a measure of their importance. This reinforces the points in 8.1-3 above that an understanding of species densities across the entire Site is fundamental to defining the baseline populations and, hence, the potential impacts of the proposed development.

8.7 Para. 3.3.26 of **APP-142** proposes, "*The Proposed Development will provide open nesting habitat for ground nesting birds to compensate for habitat lost due to placement of Solar PV modules and improve habitat and carrying capacity for ground nesting birds. Skylark have been used a proxy for all ground nesting bird species to determine the minimum area required to mitigate for loss of ground nesting bird habitat.*

8.8 The Applicant's position on ground-nesting birds is a particular concern. A feature of the area is the large number of skylarks, heard and seen, when walking along PRoWs or the country lanes. The 2023-4 wintering bird survey found 187 individuals across the areas surveyed. The Breeding Bird Surveys (**APP-090** & **APP-098**) are not publicly available and so there is no basis on which to make judgements on the Applicant's assessment.

8.9 Para. 4.5.22 of **APP-142** states that 67 skylark territories were identified across an area of 473 ha. The number across the remaining 202 ha (30% of the total) not surveyed is unknown. The Applicant estimates that territories will be lost from 279 ha under solar panels and assumes that this equates to just 39 territories lost. No allowance appears to have been made for the areas occupied by the BESS, collector compounds and substation.

8.9 Para. 4.5.25 goes on to conclude that provision of 95 ha of flower-rich grassland will adequately compensate for the lost territories. It is not clear whether this will be provided in advance of works causing the displacement, nor is there any assessment of the likelihood of success in generating the flower-rich grassland.

8.10 Given that there is no estimate of the lost nesting sites for skylarks across the entire Site, or the number of sites nominally available in non-surveyed areas, there can be no certainty that the notional areas for replacement territories would be suitable in nature or adequate in number.

8.11 Failure to recognise the impact of developments in causing harm to skylark populations, their nesting sites and availability of foraging areas, has been a reason for refusal of previous appeals relating to BESS (e.g. **APP/W0345/W/22/3292341**) and solar installations (e.g. **APP/Y3940/W/22/3303606; APP/Y2815/W/22/3299965**).

8.12 The position regarding bats in the application is analogous to that for skylarks.

8.13 Para. 2.1.55 of **APP-142** notes that, "*On the basis of both the recorded bat activity, and survey work undertaken by HS2, the site is likely to support an assemblage of 13 bat species.*"

8.14 The area is host to significant populations of bats, including rare species such as Bechstein and barbastelle. Natural England (**RR-203**) has submitted an extensive critique of the survey data and the proposals to install electrical infrastructure in areas used by bats for foraging and for maternity sites.

8.15 The Applicant seems to take the view that hedges and field margins provide adequate foraging areas but this ignores the importance of grazed, open field areas for these species. Occupation of those areas with solar panels would seriously compromise key habitat areas for bats already under threat from other developments.

8.16 On Page 8 of **PDA-006** (impact on Bechstein bats), the Applicant notes that solar panels have been removed from various fields to minimise impacts on Bechstein bats. This includes Fields D27 and D30-D37. Given that it is accepted that installation of solar panels in these fields would be detrimental to Bechstein bats, what is the rationale for retaining solar panels in Fields D28 & D29, immediately adjacent to Runts Wood?

8.17 Again, cumulative impacts need to be considered. Surveys for the Statera BESS (23/03875/APP) and Statkraft BESS (25/01297/APP) have identified significant bat activity, particularly along the Claydon Brook and its tributaries and so the entire foraging and commuting corridor habitats need to be considered as a whole and on a cumulative basis.

8.18 What evidence does the Applicant have to give confidence that the combined effects of the proposed Rosefield substation and security fencing, together with the proposed Statera substation with its security fencing, plus the combined noise disturbance will not create an unacceptable barrier for bats foraging along the Claydon Brook corridor?

8.19 I submit that the Applicant should be required to undertake ecological surveys in those areas with the Order Limits for which no data have been obtained. This should then be assessed together with the residual impacts from the Statera BESS site, which also anticipates displacement of skylarks (23/03875/APP; Paragraph 5.1 ES Vol.3: Appendix 6 – Breeding bird survey) and the proposed site for the replacement National Grid substation (within the Order Limits and known to have skylark territories).

9. Greenhouse Gas (GHG) Emissions

9.1 Para.5.3.4 of NPS **EN-1** states that, "*All proposals for energy infrastructure projects should include a GHG assessment as part of their ES (See Section 4.3). This should include:*

- *A whole life GHG assessment showing construction, operational and decommissioning GHG impacts, including impacts from change of land use."*

9.2 It goes on to say:

- *"Where there are residual emissions, the level of emissions and the impact of those on national and international efforts to limit climate change, both alone and where relevant in combination with other developments at a regional or national level, or sector level, if sectoral targets are developed."*

9.3 In their planning application for a 500 MW BESS facility (23/03875/APP), Statera quoted a round-trip efficiency (difference between imported and exported electricity) of 85%. They estimated that energy losses amounted to 420 MWh per day. This is dumped into the atmosphere as heat energy. The Applicant has not factored this into their calculations (**APP-104**) and, indeed, has declined to address the point in **PDA-006** (Page 452).

9.4 Given the huge losses of energy as heat associated with the BESS installation and their associated **residual emissions**, I submit that the combined solar energy and BESS facility proposed should be considered as a **Combined Heat and Power** facility (**Section 4.8 of EN-1**) and that, were the Inspectorate minded to approve the scheme, there should be a condition that the waste heat energy is recycled in the interests of reducing GHG emissions.

9.5 Constraints imposed by the site selection process mean that the topography of the land will result in the solar panels operating at lower than optimum efficiency. Has this been factored into the Applicant's estimates of carbon saving?

9.6 It is not clear whether the GHG calculations are based on the original position of a 500 MW grid connection. If so, and the negotiations referred to at Para. 2.1.6 result in a reduction to 335 MW, then the calculations would need to be revised.

10. BESS – Need, Fire Safety and Energy Losses

10.1 Following the recent re-evaluation by NESO of need against the number of speculative applications to construct battery storage facilities, it has become clear that there is a large excess of proposals over projected capacity requirements (Connections Reform | National Energy System Operator).

10.2 The present project has been assigned Gate 1 status for the BESS element which indicates that it has low priority and may not be required.

10.3 A 500 MW BESS installation for a site adjacent to the existing East Claydon National Grid substation has recently received planning approval on appeal (Reference: APP/J0405/W/25/3360815). The proposed development would be located immediately adjacent to the proposed site for the Rosefield substation and so, were the solar element to be approved, it could receive connections from the solar energy plant.

10.4 It appears from the foregoing that the case for the BESS element of the present proposal is not made.

10.5 The Applicant asserts that the risk of a thermal runaway event is minimal. Whilst it may be relatively small, the probability of battery cell failure leading to such an event increases with the number of cells.

10.6 During the proposed lifetime of the installation, replacement of batteries will be required. The same applies to the nearby, approved Statera BESS facility, and so the cumulative risk of fire needs to be stated.

10.7 It is not clear what absolute storage capacity (MWh) is proposed for the BESS. A 500 MW facility (possibly reduced to 335 MW) BESS would be one of the largest of its kind in the UK, involving high energy storage density.

10.8 Three fires occurred at Li-ion battery sites in the UK in 2025 (Statera BESS development site in Thurrock (19/02/25); Rothienorman, Aberdeenshire (21/02/25) and Cirencester, Gloucestershire (28/03/25 - Large fire at Warrington Council-owned solar farm in Cirencester | Warrington Guardian)).

10.9 A major fire occurred in January 2025 at the Moss Landing site in California (Fire at world's largest battery facility is a clean energy setback | New Scientist; Heavy metals found in dust miles from Moss Landing battery fire – NBC Bay Area). Up to 80% of the batteries in this 1.2 GWh facility were destroyed. The incident required mass evacuations of the local population, health issues and concerns over toxicity to the land and livestock.

10.10 The Applicant's plume study (**APP-149**) suggests that the nearest receptor is 400 m distant from the BESS site. The focus appears to be on residents of properties, although it is accepted that users of PRoWs could be closer to the site.

10.11 No consideration appears to have been given to effects of a fire on livestock and wildlife. A thermal runaway event releases not only toxic gases but also harmful particulates. This can have serious consequences for animal as well as human health and is likely to be long-lasting as a result of ground and water pollution.

10.12 The proposed location for the BESS is a site close to a watercourse and so there is a high risk of pollution in the event of a fire.

11. Transport and Access

11.1 It is not clear why Three Points Lane from its junction with Calvert Road is included within the Order Limits (e.g. Sheet 3 of 8; **APP-010**). Does the Applicant intend using this for access from Calvert Road?

11.2 Accessing the Site via Calvert Road would imply vehicles travelling through villages which would be completely unacceptable and is contrary to the Applicant's assertions on avoidance of villages.

11.3 It would be helpful if the Applicant could clarify their intentions for Three Points Lane.

11.4 The Site is served by narrow country lanes lacking in footpaths and streetlighting. In recent years, local roads have suffered significant damage as a result of use by construction traffic for infrastructure projects, including HS2 and EWR.

11.5 Users of these local roads have been subject to road closures and damage to their vehicles as a consequence of the collapse of carriageways caused by HGV traffic.

11.6 Snake Lane became impassable as a result of damage caused by HGV traffic supporting HS2 works.

11.7 During the construction period, there would be an estimated increase of up to 141 2-way HGV movements per day along these roads together with more than 200 LGVs and other vehicles. This represents a highly significant impact on narrow, country lanes whose users include pedestrians, cyclists and equestrians.

11.8 These roads are subject to the national speed limit and there is little opportunity to leave the carriageway for safety.

11.9 The Applicant's methodology for assessing residual impact is flawed. Whilst I **agree** that local roads should be assessed as **High Sensitivity** receptors, estimation of Magnitude of impact in Table 15.10 of **APP-058** is based on the extent to which "*effects are material in the decision making process*." There is no explanation of what this means, nor how that is then translated into significance of residual effects. It appears entirely subjective.

11.10 Given the nature of the local roads and the Applicant's assignment of 'High' for receptor sensitivity, the conclusion in Table 15.15 that the residual impact is **Minor (Not Significant)** is difficult to rationalise and suggests that it is based more on opinion that an evidence base.

11.11 It would be helpful if the Inspectorate could seek clarification of the methodology used and its justification.

11.12 It is anticipated that, during construction, delivery of large items, such as transformers, would involve14 Abnormal Indivisible Loads (AILs). This number is described as '*very low*' on p21 of **APP-058**.

11.13 The proposed route for AILs through Winslow includes residential roads and requires removal of street furniture to accommodate the vehicles.

11.14 The loads would then travel along East Claydon Road, entering the development sites across Fields SA55-56. These lie within EA Flood Zone 3 and are frequently underwater. (NB This is also the planned access route for Statera construction traffic (23/03875/APP)).

11.15 The Applicant has not explained how AIL vehicles would traverse the field or cross the Claydon Brook.

12. Cumulative Impacts

12.1 National Policy Statement EN-1, Para. 4.1.5 requires that, "*In considering any proposed development, in particular when weighing its adverse impacts against its benefits, the Secretary of State should take into account:*

- *its potential adverse impacts, including on the environment, and including any long-term and **cumulative adverse impacts**, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts, following the mitigation hierarchy."*

12.2 Para 4.1.6 goes on to say, "*In this context, the Secretary of State should take into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels.*"

12.3 Para. 4.3.19 states that, "*The Secretary of State should consider how the accumulation of, and interrelationship between, effects might affect the environment, economy, or community as a whole, even though they may be acceptable when considered on an individual basis with mitigation measures in place."*

12.4 At Page 482 of **APP-006**, the Applicant states, "*A detailed cumulative effects assessment has been undertaken for the purposes of the Environmental Statement.*" I **disagree** with this statement. I submit that the requirements of EN-1 Paras 4.1.6 and 4.3.19 have not been met, from a local or national perspective.

12.5 At Para. 165 of **RR-026**, Buckinghamshire Council set out a list of local infrastructure projects for which it is particularly concerned about cumulative effects as follows:

a. Consented solar:

i. Tuckey Solar Farm (25MW) – consented and under construction.
ii. Fox Covert Solar Farm (22MW) – consented and construction completed.
iii. Padbury Brook Solar Farm (44MW) – consented following appeal.

b. Solar under consideration:

i. Calvert Solar Farm.
ii. Longbreach Solar Farm.
iii. East Claydon Greener Grid Park (500MW) – this scheme is proposed to also include energy storage.

c. BESS:

i. East Claydon BESS – consented following appeal.

d. Other significant development:

i. High Speed 2 – consented and currently under construction.
ii. East West Rail – consented and currently under construction.
iii. Grendon Prison – consented following appeal.
iv. National grid proposals to replace the substation at East Claydon – this is at an early stage but proposed to be to the west of the current location.
v. BESS – proposed to the north of East Claydon substation.

12.6 The Applicant has omitted most of these schemes in their analysis of cumulative effects. Importantly, although the Applicant acknowledges that the proposed development is dependent on a connection to the National Grid substation, and that no connection can be made until a replacement substation is constructed, no attempt has been made to assess cumulative impacts with that project.

12.7 The proposed National Grid substation, Statera BESS and Statkraft BESS (if approved) would all use a construction route coincident with that for the Rosefield AIL deliveries. These other schemes would also require AIL deliveries and so the total across the three projects would be of the order of 20 AIL journeys, all of which would pass through Winslow.

12.8 Although final connection dates remain to be confirmed, were all four projects to proceed, construction work could be anticipated to take place over the period 2028-33. This would be hugely disruptive but this has not been factored into the Applicant's analysis.

12.9 I submit that potential intra- and inter-project cumulative impacts should be assessed for each of the following elements:

- Disruption of a business of critical, national importance to the NHS, pharmaceutical and biotech industries;
- Loss of skilled, local workforce and the benefits of generations of experience;
- Loss of agriculture and allied businesses (local and national implications);
- Industrialisation of an area much valued for its open landscapes;
- Loss of residential and recreational amenity (including PRoWs);
- Loss of habitat for at-risk species (e.g. skylark, bats);
- Irreversible harm to the setting of important heritage assets;
- Irreversible harm to hidden heritage assets;
- Noise and light pollution;
- Increased flood risk;
- Risk of fire from multiple BESS installations;
- Disruption of traffic flows and increased risk to non-motorised users of local, rural roads;
- Multiple disruptions to residents and to traffic in Winslow associated with the movement of large numbers of AILs.

12.10 Across the documents in the Examination Library, residual impacts have been determined using a variety of methods, many of them subjective in nature, and considered in a narrow way. For example, taking the important issue of the PRoW network. This has the potential to be affected by changes in landscape, industrialisation, effects on habitats and wildlife, accessibility, noise, traffic hazards during construction, flooding, etc. The requirements of EN-1 Para. 4.3.19 should be adhered to.

12.11 To date, the various elements likely to be affected by the development have been considered largely in 'silos', but the reality is that they combine to create an intra-project, cumulative effect which, in terms of significance the residual impact to users of the PRoWs may be considerably greater than the sum of the individual elements.

12.12 Similarly, the visual impact of the development from a single viewpoint may be relatively small, but repeated contact with its various component parts when moving around on local roads or footpaths, it has a greater impact.

12.13 Having established the true extent of the intra-project impacts, it would be expected that these are combined with those from other local projects to determine the inter-project cumulative residual impacts.

12.14 I submit that a more thorough examination of the cumulative impacts of the project is warranted.