Written Evidence: Impact of National Grid's Proposed Sea Link Construction on Bat Populations at Minster Marshes

Submitted by:
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1. Introduction and Context

As a local resident and environmental scientist, I have examined the ecological implications of the National Grid's proposed Sea Link project with particular reference to its impact on bats within and around **Minster Marshes**, Kent.
My academic background and ongoing postgraduate study in Environmental Management have focused on the relationship between anthropogenic disturbance, ecosystem structure, and the chemical and biological processes that underpin ecological stability.

Bats are legally protected under the **Conservation of Habitats and Species Regulations 2017** and serve as indicators of healthy, functioning ecosystems. Any activity that fragments their feeding or commuting routes risks destabilising the ecological balance of this sensitive landscape.

2. Species Presence and Local Importance

Anecdotal records, local observations, and video evidence confirm the regular presence of **Common Pipistrelle (*Pipistrellus pipistrellus*)** and **Daubenton's bat (*Myotis daubentonii*)** at Minster Marshes. Within the wider area, up to **16 bat species** have been recorded and are likely to utilise the site for foraging and navigation.
The **Kent Night-time Bat Walkover and Static Detector Reports (6.4.3.2.L Parts 1–3)** submitted by the National Grid identify consistent bat activity along the **Minster Stream corridor** and adjoining **hedgerow and treeline networks** , the same landscape elements earmarked for construction access and infrastructure placement.

These wetland margins, hedges, and shelterbelts form essential **linear flight corridors** linking the **Pegwell Bay SSSI** with inland foraging zones. Their loss or degradation would create ecological "breaks" across a currently continuous and dark corridor landscape.

3. Habitat Disturbance and Fragmentation

The **Arboricultural Impact Assessment (6.10, Parts 1–2)** records **758 tree features** within the Kent Order Limits and predicts **Root Protection Area (RPA) incursions** into **nine hedgerows**, **two woodlands**, and over **sixty individual or grouped trees**.

Even though few trees are scheduled for complete removal, **partial canopy loss, pruning and soil compaction** within these RPAs will diminish the ecological quality of the remaining vegetation.

Species such as *Pipistrellus*, *Myotis* and *Plecotus* depend on dense linear vegetation to navigate and to avoid predation. Thinning, trimming and lighting along these corridors

will expose bats to wind, illumination, and open gaps they may refuse to cross, effectively **fragmenting habitat continuity**.

4. Lighting, Noise and Behavioural Disturbance

Construction activity and the operation of the converter station will introduce **artificial light**, **vehicle movement**, and **acoustic disturbance** into an area that is presently dark and tranquil.
Illuminance levels exceeding even **1 lux** can displace light-sensitive species, while prolonged noise and vibration can disrupt feeding patterns and roost use.

The project documentation provides no enforceable **"dark-corridor strategy"** to maintain natural night conditions along key flight paths between Minster Stream, the surrounding drainage ditches, and adjacent hedgerows.

5. Ecological Cascades and Food-Web Effects

Beyond the direct disturbance to roosting and commuting bats, the proposed clearance of trees, scrub, and marsh vegetation will trigger **trophic cascade effects** throughout the local ecosystem.

Vegetation removed for access roads, haul routes, and the converter footprint forms the basis of **primary production**, the plant growth that supports invertebrate populations. Reduced floral diversity and canopy cover will lower the abundance of nocturnal flying insects such as *Chironomidae*, *Ephemeroptera* and *Lepidoptera*, which constitute the main diet of bats.

A decline in invertebrate biomass will not only reduce prey availability for bats but will also impact insectivorous birds, amphibians, and other higher trophic levels, further destabilising the food web of the marshes and adjacent SSSI habitats.

6. Policy and Legal Non-Compliance

The proposed works appear inconsistent with:

- **EN-1 (National Policy Statement for Energy)** §5.4.32 and §5.4.53, which require the full mitigation of impacts on irreplaceable habitats and prohibit their deterioration unless exceptional reasons exist.
- **NPPF (2024)** §193 (c), which directs refusal of developments leading to the loss or deterioration of irreplaceable habitats, including veteran trees and ancient hedgerows, without a demonstrably adequate compensation strategy.
- The **Habitats Regulations 2017**, which protect all bat species against disturbance and loss of habitat connectivity.

These policy failures demonstrate that the proposed development, as currently designed, cannot meet statutory ecological safeguards.

7. Wider Landscape Connectivity

Minster Marshes form a natural ecological corridor linking **Pegwell Bay**, **Minster Stream**, and the **Sandwich Bay to Hacklinge Marshes SSSI**.
The construction footprint, lighting, and increased traffic would sever this linkage, reducing ecological resilience across the wider wetland network — contrary to the **Thanet District Local Plan (Policy SP27)** commitment to protect and enhance green infrastructure connectivity.

8. Conclusion

The cumulative evidence, including National Grid's own surveys, shows that Minster Marshes support a diverse and active bat population whose survival depends on the very habitats targeted for alteration.

The combination of **hedgerow fragmentation**, **RPA incursions**, **lighting and noise disturbance**, and **loss of primary production** will undermine food resources and habitat continuity not only for bats but for the broader marshland ecosystem.

Given the **statutory protections** afforded to bats and the irreplaceable character of Minster Marshes, it is submitted that the precautionary principle must apply.
The Examining Authority should require that either the development be **re-sited or fundamentally redesigned**, or that comprehensive and enforceable ecological safeguards, including **dark corridors**, **no-dig construction zones**, and **habitat restoration plans**, be implemented prior to any approval.

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