

This summary is based on the Preliminary Environmental Information Report (PEIR) for the proposed Kingsway Solar Farm. The report was prepared by Kingsway Solar Farm Limited, a subsidiary of Downing Renewable Developments. The purpose of this document, a Non-Technical Summary (NTS), is to provide a clear and concise overview of the project and its potential environmental effects for a wider audience.

The project, referred to as "the Scheme," is a solar electricity generating facility that, if approved, would be constructed, operated, and eventually decommissioned. The project requires a **Development Consent Order (DCO)** because of its scale and nature, as it is considered a **Nationally Significant Infrastructure Project (NSIP)**. The PEIR presents the preliminary findings of an **Environmental Impact Assessment (EIA)** and is being used to inform a six-week statutory consultation period.

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## Scheme Location and Components

The proposed site is located approximately 10.5 km southeast of Cambridge city center and is situated within the administrative boundaries of East Cambridgeshire District Council and South Cambridgeshire District Council. The entire site covers about 2,683 hectares and includes three main "Developable Areas," two "Inter-Array Connection Corridors," and one "Grid Connection Corridor".

- **Developable Areas:** These are three land parcels (A, B, and C) totaling about 1,246 hectares that would host the solar panels, a **Battery Energy Storage System (BESS)**, and on-site substations.
  - **Area A - West:** 213 hectares.
  - **Area B - Central:** 490 hectares.
  - **Area C - East:** 543 hectares.
- **Inter-Array Connection Corridors:** Two corridors are required to link the developable areas. Connection 1 links Area A and Area B, covering 277 hectares, while Connection 2 links two parcels within Area C, spanning 35 hectares. Both overhead lines and underground cables are being considered for this connection.
- **Grid Connection Corridor:** This corridor would house a 400 kV **overhead line (OHL)** connecting the northern part of Developable Area B to the planned Burwell South Substation. The line would use steel lattice pylons that are typically 50 meters tall but could be as high as 65 meters where they cross the A14. The corridor covers an area of approximately 1,116 hectares.

The scheme is designed to generate enough energy to power around 175,000 homes.

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## Alternatives Considered

The project has been guided by an iterative design process that has considered alternative technologies and locations, as well as stakeholder feedback.

- **Solar Technology:** Solar PV was chosen as the most suitable technology due to the site's high solar irradiance and favorable topography. Other technologies, such as wind, nuclear, and hydrogen, were considered but discounted. For example, wind power would require more land and could cause noise and shadow flicker effects on

nearby residents, and nuclear and hydrogen technologies were not considered viable for this location.

- **Site Selection:** The location was selected based on its proximity to the existing Burwell to Pelham 400kV OHL, high solar irradiance, favorable topography, and access to the A11 and A14 road networks.
- **Grid Connection Corridor:** Two options for the Grid Connection Corridor were initially identified. The eastern corridor was selected as the preferred option because it would have less impact on important ecological and historic sites and would have a better setback from residences compared to the western corridor.

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## Summary of Potential Significant Effects

The PEIR presents a preliminary assessment of potential significant effects on a range of environmental topics. The assessment is based on a precautionary approach, meaning it assumes a reasonable worst-case scenario where there is uncertainty.

### Biodiversity

The site is primarily agricultural land, but it contains habitats that support species like badgers, bats, and great crested newts. The Grid Connection Corridor intersects the Devil's Dyke **Site of Special Scientific Interest (SSSI)**, and Inter-Array Connection Corridor 1 intersects the Fleam Dyke SSSI.

- **Potential Significant Effects:** The assessment found potential for significant adverse residual effects on great crested newts during construction, and on bats and ground-nesting birds during operation. There is also a potential for significant cumulative effects from other nearby projects on birds at risk of colliding with the OHL and on ground-nesting birds.
- **Mitigation:** The design will prioritize retaining and enhancing existing habitats like hedgerows and woodlands. An ecologist would be appointed to oversee pre-construction surveys and habitat protection measures.

### Landscape and Visual Amenity

The landscape is characterized by flat, gently undulating farmland with hedgerows and small woodlands. No part of the site is within a statutorily designated landscape.

- **Potential Significant Effects:** The scheme is anticipated to have significant adverse effects on the landscape during construction, operation, and decommissioning. There is also potential for significant adverse visual effects on people using the public rights of way network and on residents and road users in various locations.
- **Mitigation:** Mitigation measures include keeping solar panels and equipment at a sufficient distance from homes, retaining existing vegetation, and using native trees and shrubs for screening.

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### Cultural Heritage

**Archaeology:** The site contains known archaeological assets, including a Bronze Age bowl barrow and other probable prehistoric and Romano-British settlements. The Grid Connection Corridor contains three scheduled monuments, including Devil's Dyke.

- **Potential Significant Effects:** Construction has the potential to cause significant adverse effects on archaeological assets through ground disturbance.
- **Mitigation:** The design aims to avoid areas with known archaeological remains. An Archaeological Management Strategy (AMS) will be implemented to guide further investigation and preservation.

**Built Heritage:** There are 6 designated heritage assets within the site, including listed buildings and scheduled monuments. There are also 129 listed buildings and six conservation areas within the study area that could be affected by the scheme.

- **Potential Significant Effects:** The operational phase could cause significant adverse effects on the setting of two heritage assets: Weston Colville Hall and St Mary's Church, Church End.
- **Mitigation:** The scheme has been designed to avoid physical impacts on heritage assets, and a minimum 10-meter offset from designated assets will be maintained.

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## Traffic and Transport

Traffic movements during construction are expected to be the greatest and are the focus of the assessment. The A11 and A14 are the main access routes.

- **Potential Significant Effects:** The assessment found that short-term, temporary significant adverse effects may occur on 16 local road links due to an increase in **Heavy Goods Vehicle (HGV)** movements during construction and decommissioning.
- **Mitigation:** An **Outline Construction Traffic Management Plan (Outline CTMP)** will be developed to manage HGV routes, control delivery times, and reduce traffic impacts on local roads and settlements.

## Noise and Vibration

The main existing noise sources are the A11, A14, and the Cambridge to Newmarket railway line.

- **Potential Significant Effects:** On-site construction has the potential for temporary noise impacts, but they are not considered likely to be significant. However, there is a potential for significant operational noise effects on 17 properties located within 200 meters of the proposed OHL alignment.
- **Mitigation:** The main sources of operational noise, such as the BESS and substations, have been located at least 300 meters from the nearest noise-sensitive receptors. An **Outline Construction Environmental Management Plan (Outline CEMP)** will include measures to control noise and vibration, such as restrictions on working hours and the use of noise reduction measures.

## Other Environmental Topics

- **Soils and Agriculture:** The majority of the land is agricultural, with a significant portion classified as **Best and Most Versatile (BMV)** quality. The effects on BMV land are considered significant because the land may not be used for agricultural purposes during the scheme's operation. However, this impact is temporary, as the land will be returned to agricultural use after decommissioning.
- **Glint and Glare:** A detailed assessment has not yet been completed, but it is assumed that any potential significant impacts from glint and glare on ground-based receptors can be adequately mitigated through vegetation screening.
- **Water Resources:** The majority of the site is at a low risk of flooding, but some areas near watercourses are at medium to high risk. An outline Drainage Strategy and a Flood Risk Assessment will be provided to ensure there is no increase in flood risk. It is predicted that there will be no significant effects on flood risk or water quality.
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- **Climate Change:** The scheme is expected to have a beneficial effect on climate change by avoiding a significant amount of **Greenhouse Gas (GHG)** emissions that would have been generated by fossil fuels. The risk to the scheme from climate change, such as heatwaves or flooding, is considered minor due to the use of flood-resilient and durable materials.