

The Great Grid Upgrade

Norwich to Tilbury

Environmental Implications of Change – Essex 1

February 2025

nationalgrid

AENC-ARC-CNS-REP-0012

Contents

1.	Environmental Implications of Change – Essex 1	1
1.1	Introduction	1
1.2	Environmental Implications of Change	3
1.3	Conclusion	5



1. Environmental Implications of Change – Essex 1

1.1 Introduction
















- 1.1.1 This Environmental Implications of Change document should be read alongside the associated Essex 1 targeted consultation leaflet.
- 1.1.2 Image 1 presents the Statutory Consultation design and the proposed change together with key environmental constraints using the key below.

Key







Proposed land use

-  Draft order limits
-  Statutory undertaker works

Proposed project design details

-  New lattice pylon
-  Gantry
-  Full line tension gantry
-  New overhead line
-  Lower height pylons
-  New underground cable swathe centreline
-  New underground cable construction swathe
-  Cable sealing end compound boundary
-  Substation boundary
-  New underground cable trenchless crossing
-  Permanent access route including visibility splays (substations and cable sealing end compound)
-  Existing DNO lattice pylon - to be dismantled
-  Existing DNO lattice pylon - to be modified
-  Existing DNO overhead line - to be dismantled
-  Existing DNO overhead line - to be modified

Temporary works

-  Site access, crossover points and visibility splays
-  Haul roads
-  Haul roads for underground cable, cable sealing end compounds and substation works
-  Crossing protection work area
-  Construction compound
-  Construction laydown area

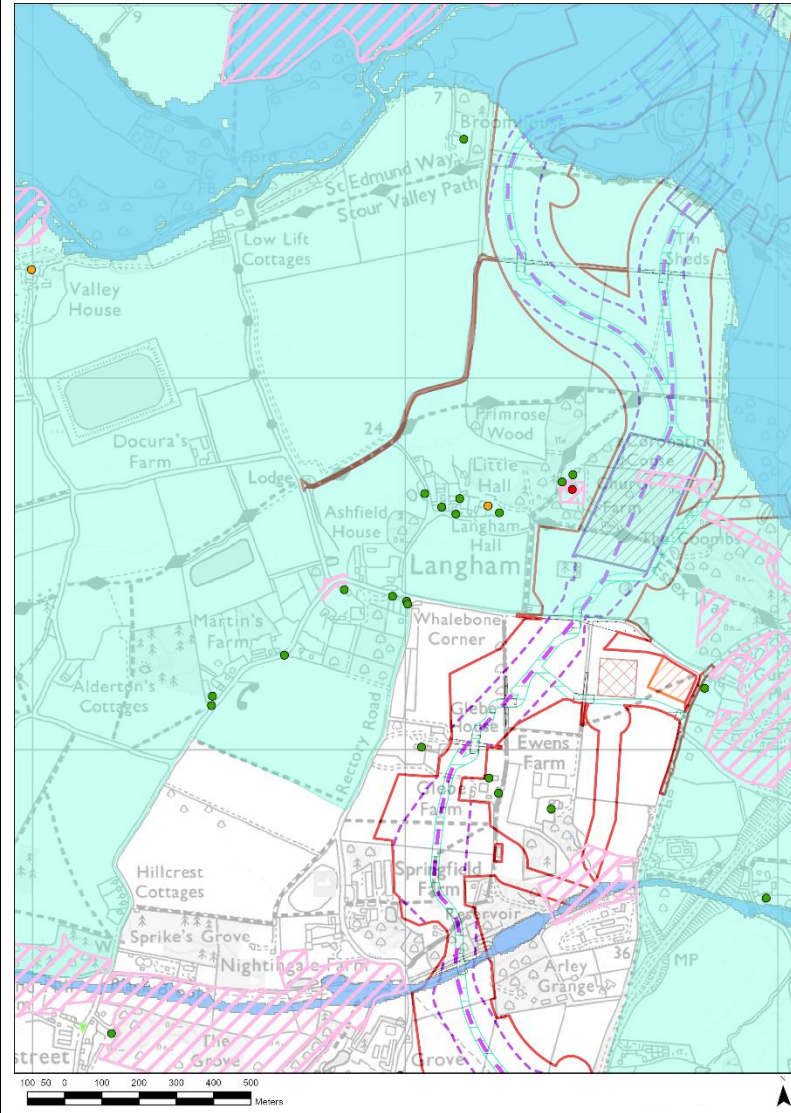
Environmental constraints

Listed Buildings

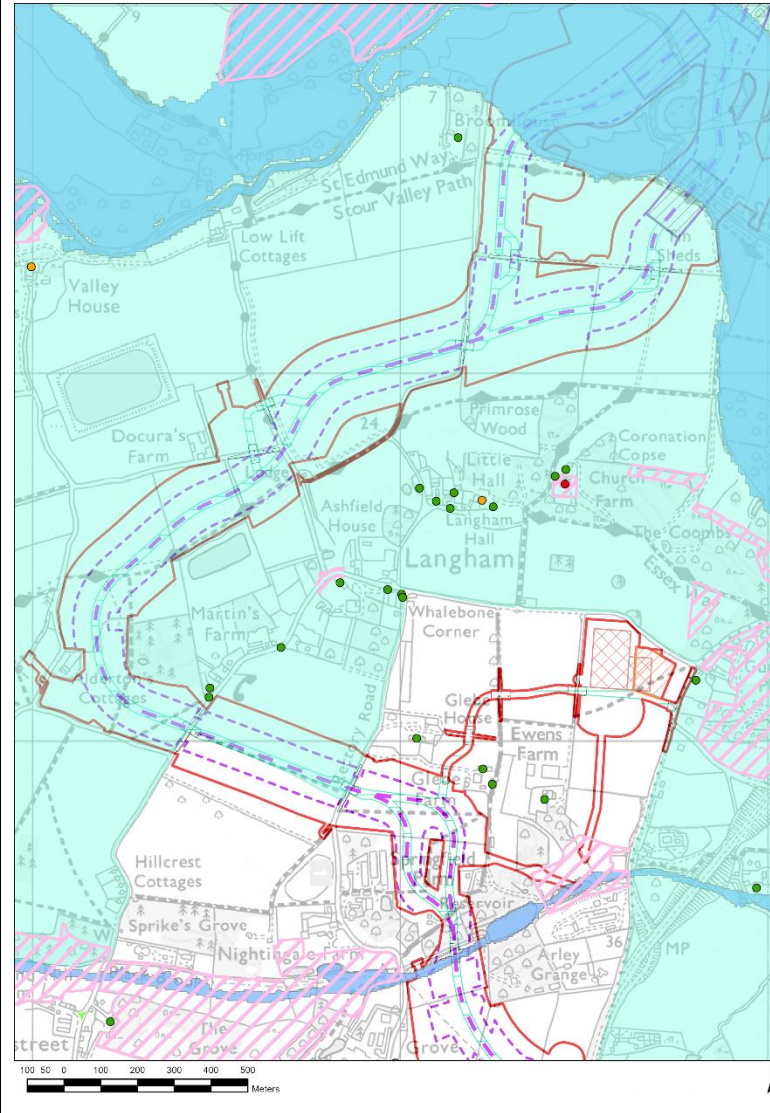
-  Grade I
-  Grade II
-  Grade II*
-  Local Nature Reserves
-  Scheduled Monument
-  Conservation Areas
-  Special Areas of Conservation
-  Sites of Special Scientific Interest
-  County / Local Wildlife Sites
-  Registered Parks and Gardens
-  Countryside and Rights of Way Open Access Land
-  National Landscape (an Area of Outstanding Natural beauty)
-  Ancient Woodland
-  Flood Zone 3

Image 1: Proposed Change

Statutory Consultation Design:



Proposed Change:



1.2 Environmental Implications of Change

- 1.2.1 We have reviewed the proposed change set out in the consultation information leaflet and its likely environmental implications against the preliminary assessment reported in the Preliminary Environmental Information Report (PEIR) published as part of our summer 2024 statutory consultation. We have undertaken this review against each of the technical topics covered by the PEIR, with respect to this location within the Project, including: agriculture and soils; air quality; ecology and biodiversity; contaminated land, geology and hydrogeology; health and wellbeing; historic environment; hydrology, land drainage and flood risk; landscape and visual; noise and vibration; socio-economics, recreation and tourism; and traffic and transport. We have applied the same methodologies and principles set out in the PEIR based on the information available and recognising that the Project is the subject of ongoing consultation and environmental surveys.
- 1.2.2 For information on the environmental implications of a change following our review, National Grid has produced an ‘Environmental Implications of Change document’ (EIC), like this one, with location reference to the specific area where the proposed change is located.
- 1.2.3 The table below outlines the environmental implications of a change which is proposed as a result of feedback received during statutory consultation in 2024. The information provided here is proportionate and appropriate information on the environmental implications when looked at both in local context and in the context of the project as a whole.

Environmental Topic	Comments / observations / identified environmental implications of the proposed change when compared to the preliminary assessment presented in the PEIR
Agriculture and Soils	The proposed change would increase the length of underground cabling and therefore would increase the potential for soil damage through increased disturbance. Indicative mapping shows Grade 2 ‘Provisional Agricultural Land Classification’ and soil types for the proposed change whereas the design presented at statutory consultation covered Grade 3 ‘Provisional Agricultural Land Classification’. However, there would be no change to the type or significance of agriculture and soil effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Air Quality	There would be no change to the type or significance of air quality effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Ecology and Biodiversity	The proposed change would avoid the potential effects on ecology features associated with St Mary’s Wood. A barbastelle maternity bat roost has also been identified within the St Mary’s wood, which would be affected through levels of construction disturbance under the design presented at statutory consultation. The proposed change would avoid effects on this Annex II bat species roost. Overall, although benefits to the proposed change, there would be no change to the type or significance of ecology and biodiversity effects as a

Environmental Topic	Comments / observations / identified environmental implications of the proposed change when compared to the preliminary assessment presented in the PEIR
	result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Contaminated Land, Geology and Hydrogeology	The proposed change would locate underground cabling through a Source Protection Zone 2. This risk could likely be mitigated with appropriate Hydrogeological Risk Assessment as the aquifer is protected by a thickness of low permeability materials. The proposed route change is longer than the design presented at statutory consultation meaning there is an increased risk of a potential effect to groundwater. However, there would be no change to the type or significance of contaminated land, geology and hydrogeology effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Health and Wellbeing	There would be no change to the type or significance of health and wellbeing effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Historic Environment	The proposed change would reduce construction phase impacts through change to setting at the grade I listed Church of St Mary when compared to the design presented at statutory consultation. However, there would be no change to the type or significance of historic environment effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Hydrology, Land Drainage and Flood Risk	There would be no change to the type or significance of hydrology, land drainage and flood risk effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Landscape and Visual	The proposed change would alleviate the pinch point between Glebe Farm and Glebe House and would remove effects on vegetation along a driveway and within Langham Hall Estate. However, there would be no change to the type or significance of landscape and visual effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Noise and Vibration	There would be no change to the type or significance of noise and vibration effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Socio-economics, Recreation and Tourism	The proposed change would avoid parts of the Langham Hall Estate (recreation and tourism asset) which could avoid disruption during construction. However, there would be no change to the type or significance of socio-economics, recreation and tourism effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.
Traffic and Transport	There would be no change to the type or significance of traffic and transport effects as a result of the proposed change, when compared to the design and PEIR presented at statutory consultation.

1.3 Conclusion

- 1.3.1 The proposed change would not materially change the conclusions that were reported within the PEIR (National Grid, 2024) which was published for statutory consultation. The PEIR can be viewed [here](#).
- 1.3.2 If the proposed change is taken forwards, the baseline information (and environmental surveys) and assessment associated with this change would be provided in the Environmental Statement (ES).

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