



Chelmsford City Council Cabinet

9th July 2024

Norwich to Tilbury Powerline Proposals – Statutory Consultation Response

Report by:

Cabinet Member for a Greener Chelmsford

Officer Contact:

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Purpose

To seek approval on the City Council's consultation response to the Norwich to Tilbury Nationally Significant Infrastructure Project (NSIP) statutory consultation which has been extended until 26th July 2024, and to approve the necessary Officer delegations for the Council's future involvement in the forthcoming Independent Examination.

Options

- 1a Cabinet agrees the proposed consultation response attached at Appendix 1
- 1b Cabinet recommends amendments to the proposed consultation response attached at Appendix 1 and agrees for the amended consultation to be issued to National Grid under delegated powers.

2a Cabinet delegates to the Director of Sustainable Communities, in consultation with the Cabinet Member for a Greener Chelmsford, the Council's future involvement in the forthcoming Independent Examination.

2b Cabinet does not delegate to the Director of Sustainable Communities, in consultation with the Cabinet Member for a Greener Chelmsford, the Council's future involvement in the forthcoming Independent Examination.

Preferred option and reasons

Option 1a – to agree the proposed consultation response attached at Appendix 1.

Option 2a – to agree delegating to the Director of Sustainable Communities, in consultation with the Cabinet Member for a Greener Chelmsford, future involvement in the forthcoming Independent Examination. This is to ensure that tight Examination deadlines are not missed and that the City Council is fully represented during this period.

Recommendations

That the Cabinet approve the consultation response attached at Appendix 1 and that this can be sent to National Grid before the 26th July 2024.

That the Cabinet delegates to the Director of Sustainable Communities, in consultation with the Cabinet Member for a Greener Chelmsford, the Council's future involvement in the forthcoming Independent Examination.

1. Introduction

1.1. The Norwich to Tilbury project is proposed by National Grid to provide a new link on the transmission system by upgrading and reinforcing the electricity transmission system in East Anglia between Norwich and Tilbury. The project will require the construction of new pylons and overhead cables and will include approximately 159km of new overhead lines and 25km of underground cabling between Norwich to Tilbury. The proposed route will run through the administrative boundaries of Chelmsford.

1.2. The proposal is a "Nationally Significant Infrastructure Project" (NSIP). National Grid will need to apply for a Development Consent Order (DCO), which will be submitted to, and examined by the Planning Inspectorate on behalf of the Secretary of State. Chelmsford City Council (CCC) is a consultee in this process and the Secretary of State will make the final decision on the DCO based on the Planning Inspectorate's recommendations.

- 1.3. An NSIP is effectively a large scale and all-encompassing planning application, other local examples are the A12 widening scheme and the Longfield Solar Farm.

2. Background

- 2.1. National Grid held a non-statutory consultation between 21 April 2022 and 16 June 2022. This was followed by a second non-statutory consultation held between 27 June 2023 and 21 August 2023.
- 2.2. The Council's consultation response is attached at Appendix 1, within the consultation response it refers to the Council's previous consultation response in September 2023, this previous response is a background paper to this report and can be viewed at this link [Previous Consultation Responses](#)
- 2.3. The City Council's representations on the second non-statutory consultation stated that the Council continues to strongly object to the proposal as the project was still considered to be premature and not all the potential alternative options had been fully explored and assessed. The City Council also raised serious concerns about the heritage and landscape impact of the proposed powerline alignment and design which it considered had not been fully assessed and therefore the draft preferred alignment was premature.

3. Summary of Consultation Response

- 3.1 Whilst the need for clean energy transmission is understood, it is proposed that the City Council maintains an objection in principle to the use of onshore pylons and power lines. This objection is because insufficient evidence has been provided to show that the powerlines are needed by 2030 and that the accelerated programme of consultation has taken the project outside of the scope for Holistic Network Design (HND) as part of the Offshore Transmission Network Review (OTNR). The preferred strategic option for Norwich to Tilbury remains an integrated offshore technology that minimises onshore transmission infrastructure and does not include overhead lines and pylons.
- 3.2 Notwithstanding the overall objection in principle, the City Council provides comments on the proposed alignment and raises concerns over the harmful landscape impacts, potential for harm to residential amenity and in particular the harm to designated heritage assets along the route.
- 3.3 There is significant concern regarding the impacts on designated and non-designated heritage assets at Little Waltham and Great Waltham, where the route passes between the two historic villages.

3.4 There is also significant concern that the archaeological remains of an Iron Age and later settlement at Ash Tree Corner at Little Waltham extends beyond the designated scheduled monument area. This area, extending into the order limits, may be of national significance and therefore further work is needed to determine the extent of the archaeology.

3.5 Insufficient effort has been provided to mitigate the impact of the Project (particularly on heritage assets) and insufficient information has been provided to be able to properly assess the likely impacts of the Project and mitigation proposed.

4. Conclusions

4.1 The City Council maintains its objection in principle on the Norwich to Tilbury project on the basis of the following three grounds:

- i. That insufficient evidence has been provided in the 2024 statutory consultation documents to be certain about how much additional electricity transmission capacity is required in the southeast, and by what date, to fully demonstrate that an onshore solution is required by 2030.
- ii. Object to National Grid undertaking an accelerated programme of consultation to meet an uncertain 2030 date prior to the conclusion of the Offshore Coordination Support Scheme (OCSS) and proper consideration of the ESO East Anglia Study Report (March 2024)
- iii. The presence of overhead lines and 45-50m high pylons will be visually harmful and would result in unnecessary harm to heritage, landscape, ecology and residential amenity across the Chelmsford area.

4.2 It is recommended that Cabinet agrees the consultation response attached at Appendix 1. The response incorporates the advice from specialists at Essex County Council and Place Services.

List of appendices:

Appendix 1 – Norwich to Tilbury Powerline Project Statutory Consultation Response from Chelmsford City Council

Background papers:

National Policy Statement for energy EN-1

National Policy Statement for electricity networks infrastructure EN-5

The National Planning Policy Framework 2023
The Chelmsford Local Plan 2020
Previous Consultation Responses <https://www.chelmsford.gov.uk/planning-and-building-control/developments-and-improvements-in-chelmsford/new-electricity-power-lines-norwich-to-tilbury/>

Corporate Implications

Legal/Constitutional:

The consultation response falls to cabinet for approval. The delegated power referred to in recommendation 1 b can be found in the officer scheme of delegation in the Council's constitution at paragraph 3.4.7.25. This empowers the Director of Sustainable Communities to respond to government consultation relating to Nationally Significant Infrastructure proposals.

Financial:

N/A

Potential impact on climate change and the environment:

Whilst the need for clean energy transmission is understood, the City Council's preferred strategic option for Norwich to Tilbury remains an integrated offshore technology that minimises onshore transmission infrastructure and does not include overhead lines and pylons.

Contribution toward achieving a net zero carbon position by 2030:

The preferred strategic option for Norwich to Tilbury remains an integrated offshore technology that minimises onshore transmission infrastructure and does not include overhead lines and pylons. The City Council recognises that this option would need to be delivered at pace and without risk to national net zero, renewable energy and decarbonisation targets, and energy security.

Personnel:

N/A

Risk Management:

N/A

Equality and Diversity:

N/A

Health and Safety:

N/A

Digital:

N/A

Other:

N/A

Consultees:

Chelmsford City Council Planning Policy Team
Chelmsford City Council Development Management Team
Essex County Council
Place Services

Relevant Policies and Strategies:

Chelmsford Local Plan 2013-2036, 2020



**Norwich to Tilbury Powerline Project
Statutory Consultation June 2024**

Response from Chelmsford City Council

The City Council continues to object in principle. The Norwich to Tilbury project should be part of an integrated offshore scheme that does not include overhead lines and pylons.

1. Overall summary response

- 1.1. Whilst the need for clean energy transmission is understood, Chelmsford City Council (CCC) maintains an objection in principle to the use of onshore pylons and power lines. This objection is because insufficient evidence has been provided to show that the lines are needed by 2030 and that the accelerated programme of consultation has taken the project outside of the scope for Holistic Network Design (HND) as part of the Offshore Transmission Network Review (OTNR). The preferred strategic option for Norwich to Tilbury remains an integrated offshore technology that minimises onshore transmission infrastructure and does not include overhead lines and pylons.
- 1.2. Notwithstanding the overall objection in principle, CCC provides comments on the proposed alignment and raises concerns over the harmful landscape impacts, potential for harm to residential amenity and in particular the harm to designated heritage assets along the route.
- 1.3. There is significant concern regarding the impacts on designated and non-designated heritage assets at Little Waltham and Great Waltham, where the route passes between the two historic villages.
- 1.4. There is also significant concern that the archaeological remains of an Iron Age and later settlement at Ash Tree Corner at Little Waltham extends beyond the designated scheduled monument area. This area, extending into the order limits, may be of national significance and therefore further work is needed to determine the extent of the archaeology.
- 1.5. Insufficient effort has been provided to mitigate the impact of the Project (particularly on heritage assets) and insufficient information has been provided to be able to properly assess the likely impacts of the Project and mitigation proposed.

2. Context

- 2.1. This consultation follows two previous non-statutory consultations, which were held by National Grid Electricity Transmission Ltd (NG) between 21 April 2022 -16 June 2022 and 27 June 2023 - 21 August 2023. Following consideration by the CCC Policy Board, detailed responses were submitted to NG outlining strong objections in principle to the Project for an overhead powerline scheme. The second consultation response in particular raised serious concerns about the heritage and landscape impact of the proposed powerline alignment and design. It was CCC's position that this had not been fully assessed and therefore the draft preferred alignment was premature.
- 2.2. For completeness the most recent consultation response from CCC (September 2023) is attached at Annex A of this response.
- 2.3. This consultation is based on the following consultation documents:
 - Project background document
 - Preliminary Environmental Information Report (PEIR)
 - Design Development Report (2024)
 - Strategic Options Backcheck and Review (2024)
 - Non Statutory Consultation Feedback Report (2023)
 - Construction Access Plans
 - Draft Outline Construction Traffic Management Plan
 - Consultation Plans
 - Environmental Constraints Plan
 - Typical drawings for instance showing haul road typical cross section and typical junction visibility splay
- 2.4. CCC area is shown in Section F and a small area of Section G of the consultation plans.

3. National Planning Policy Context

- 3.1. The Project is to be assessed against relevant National Planning Policy Statements (NPS)
 - National Policy Statement for energy EN-1
 - National Policy Statement for electricity networks infrastructure EN-5
- 3.2. The National Planning Policy Framework and The Chelmsford Local Plan will also be material considerations to the Development Consent Order application.

4. Principle of proposal and Onshore Route

- 4.1. CCC declared a Climate and Ecological Emergency in 2019. CCC supports the transition towards a low or zero carbon economy to address the impact of climate

change and improve sustainability. This includes renewable energy production where this can be appropriately located and suitably mitigated.

- 4.2. CCC also recognises the rapidly growing need for electricity as the climate emergency requires us to help support the replacement of fossil fuels such as oil and gas as soon as possible. However, this does not mean that all proposals which may assist in reducing climate change should be approved at any cost.
- 4.3. The City Council maintains its objection in principle on the Norwich to Tilbury project on the basis of the following three grounds:
 - i. That insufficient evidence has been provided in the 2024 statutory consultation documents to be certain about how much additional electricity transmission capacity is required in the southeast, and by what date, to fully demonstrate that an onshore solution is required by 2030.
 - ii. Object to NG undertaking an accelerated programme of consultation to meet an uncertain 2030 date prior to the conclusion of the Offshore Coordination Support Scheme (OCSS) and proper consideration of the ESO East Anglia Study Report (March 2024)
 - iii. The presence of overhead lines and 45-50m high pylons will be visually harmful and would result in unnecessary harm to heritage, landscape, ecology and residential amenity across the Chelmsford area.
- 4.4. Within the last set of consultation documents, NG provided information on strategic options testing with the inclusion of a Strategic Options Backcheck and Review Document (June 2023) and Design Development Report (June 2023). Both of these documents have been updated but remain materially unchanged from the 2023 iteration and continue to conclude that the current overhead line onshore proposal must be progressed.
- 4.5. Since the last round of consultation there have been two reports published which consider alternative strategic options, namely the East Anglia Transmission Network Reinforcement Report by Hiorns Smart Energy Networks (2023) (The Hiorns Report) and the Electricity System Operator East Anglia Network Study (March 2024) (The ESO Report).
- 4.6. The Hiorns report was commissioned in 2023 jointly by Essex, Suffolk and Norfolk County Council's. The report reviewed the need and timing for additional capacity out of the East Anglia region against the Electricity Systems Operators (ESO) contracted generation. It also considered the need against a range of credible generation scenarios to assess the robustness of the need case.
- 4.7. The ESO report was carried out by the Electricity Systems Operator (ESO). The ESO carries out several roles on behalf of the electricity industry, including making formal offers to applicants requesting connection to the National Electricity Transmission System. The report sought to independently assess the different ways the electricity being generated could be transported, once it has landed, to where it is needed.

- 4.8. The Hiorns Report acknowledges that if all the generation which is presently contracted proceeds in accordance with its contracted dates, then there is a requirement for additional transmission capacity identified and that the proposed solution provides the most economical. The Hiorns Report did not, however, support National Grid's programme delivery date of 2030 and argued that that the need for additional transmission capacity would more likely be closer to 2035 and that National Grid could delay progressing the Project for at least five years.
- 4.9. The City Council is therefore concerned that NG have proceeded with statutory consultation on a strategic proposal and 2024 preferred route for Norwich to Tilbury prior to any meaningful outcome from the Offshore Coordination Support Scheme (OCSS). Because the Norwich to Tilbury proposals are included within the Government's Accelerated Strategic Transmission Investment programme (ASTI) for delivery by 2030, it appears that this will take it out of scope for Holistic Network Design (HND) as part of the Offshore Transmission Network Review (OTNR). The OTNR was launched by the government in 2020 and concluded in May 2023. It reviewed the way that the offshore transmission network is designed and delivered. A core outcome on the OTNR is the HND. The Holistic Network Design (HND) was published by the Electricity System Operator (ESO) in July 2022 and focuses on moving offshore wind connections from a radial (point-to-point) approach for individual projects, to a more coordinated one which considers future projects and the sharing of infrastructure
- 4.10. The City Council wishes to reiterate that its preferred strategic option for Norwich to Tilbury remains an integrated offshore technology that minimises onshore transmission infrastructure and does not include overhead lines and pylons. The City Council recognises that this option would need to be delivered at pace and without risk to national net zero, renewable energy and decarbonisation targets, and energy security.

5. Changes from the previous non-statutory consultation

- 5.1. The alterations to the previous alignment are relatively minor. These are set out within the Design Development Report. For the Chelmsford Area the changes are as follows:
- Where the alignment crosses the 132kV overhead line at Fuller Street it is proposed to replace the 132kV overhead line with underground cabling in order to prevent a cumulative effect of overhead lines.
 - Minor adjustment to the crossing of the A131 by moving the powerlines and pylons TB132 and TB133 slightly further south
 - To the west of Broomfield the 2023 draft alignment has been straightened between TB148 and TB155
 - Minor adjustments to the positioning of TB160 to TB164 (west of Cow Watering Lane, Writtle) to move the line out of a flood zone and to increase the distance to the nearest residential properties

- Minor pylon position adjustments at Edney Common but the same alignment as the 2023 consultation

- Minor realignment to move TB189 - TB197 (near Buttsbury, Stock) slightly further east to reduce an oversail of Remus animal rescue establishment and avoid the placement of pylons within flood risk areas.

5.2. The minor changes above are welcomed but do not make any significant difference to the overall powerline route from the 2023 alignment.

5.3. It is particularly disappointing that the route still proposes to traverse the sensitive area between the villages of Great Waltham and Little Waltham, where the route passes between the two Conservation Areas, close to the Langleys Registered Park and Garden and within the setting of the grade I listed house Langleys, near to the Ash Tree Corner Scheduled Monument, the Church of St Mary and St Lawrence (grade I) and 65 grade II listed and 2 grade II* buildings within 1km.

5.4. This is the only location on the entire 184km route where permanent significant impacts are identified affecting any Conservation Area or Registered Parks and Gardens. A different alignment should be chosen, or alternative mitigation in the form of cabling should be used for this section. The current proposal to continue with the 2023 alignment at this point of the route does not appear to align with the Holford Rule 2.

6. Rural Area, Green Belt and Green Wedge

6.1. The route enters the City Council area from the northeast, south of Great Leighs, into and through land allocated as the Rural Area in the Chelmsford Local Plan. It runs adjacent to land allocated as Green Wedge north of Chelmsford with access routes extending into the Green Wedge. The route leaves the Rural Area, to the southwest of Chelmsford and enters land designated as Green Belt in the Chelmsford Local Plan. The Green Belt forms part of London's Metropolitan Green Belt.

6.2. The proposed route crosses many roads and public rights of way including the northwestern edge of the Centenary Circle and the Essex Way and would be visible in long, medium and short distance views.

Green Belt

6.3. The pylons would be 45-50m high and do not fall within the exceptions as set out in paragraphs 54 and 55 of the NPPF or within exceptions set out in the relevant policies in the Chelmsford Local Plan. The pylons would therefore be inappropriate development in the Green Belt.

6.4. Paragraph 156 of the NPPF, agrees that elements of many renewable energy projects, such as this project to transfer energy from wind farms across the country, will comprise inappropriate development. In such cases, developers will need to demonstrate very special circumstances if projects are to proceed, which may

include the wider environmental benefits associated with increased production of energy from renewable energy sources.

- 6.5. This approach is supplemented by the NPS. Paragraph 5.11.36 of NPS EN-1 states that when located in the Green Belt, energy infrastructure projects may comprise 'inappropriate development' and inappropriate development is by definition harmful to the Green Belt with references to the NPPF.
- 6.6. Paragraph 5.11.37 states that very special circumstances are not defined in national planning policy as it is for the individual decision maker to assess each case on its merits and give relevant circumstances their due weight. However, it does state that substantial weight is given to any harm to the Green Belt when considering any application for such development, while taking account, in relation to renewable and linear infrastructure, of the extent to which its physical characteristics are such that it has limited or no impact on the fundamental purposes of the Green Belt designation. Very special circumstances may include the wider environmental benefits associated with increased production of energy from renewables and other low carbon sources.
- 6.7. This matter is covered in the Non-Statutory Consultation Feedback Report (2023). In summary this states:
- To connect to Tilbury it is necessary to route through the Metropolitan Green Belt
 - Electricity networks are an established feature in our landscapes taking energy across open countryside to towns and cities where it is needed, hence many numerous electricity transmissions connections crossing Green Belts
 - Many of the connections are by way of overhead lines, and by their nature, within Green Belt due to need to transport energy around the country and avoid the need to avoid the most built up areas around towns and cities
 - Do not conflict with Green Belt purposes and preserve openness
 - Little physical change to the land they pass through and leave majority of the land beneath free from development and open
 - A planning statement will be submitted with the Development Consent Order application which will assess the impacts of the proposal on the Green Belt.
- 6.8. Concerns are raised to whether the principle objection can be overcome to justify the need for the route on shore, and hence through Chelmsford and the Metropolitan Green Belt.
- 6.9. The visual impact upon the landscape will be considered below.
- 6.10. If routing through the Metropolitan Green Belt, at present there is insufficient information to fully consider the very special circumstances and the balance between the impacts and benefits of the scheme. Therefore, CCC welcome the submission of a planning statement with the Development Consent Order application. CCC would expect this statement to assess the impacts of the Project on the Green Belt, setting out clear benefits of the Project, and provide appropriate weight to each element to demonstrate whether very special circumstances exist to outweigh the harm to the Green Belt.

Green Wedge

- 6.11. The Green Wedge is a unique designation in Chelmsford and has a multi-functional role providing opportunities for cycling and walking as well as being a wildlife corridor.
- 6.12. NPS ENV-1 in paragraph 5.11.40 concerns green wedges, and states that they do not convey the same level of permanence of a Green Belt and should be reviewed by the local authority as part of the development plan review process.
- 6.13. The Development Plan for Chelmsford is currently being reviewed, with consultation currently underway on the preferred options. There is no change to the position of the Green Wedge in relation to the Project.
- 6.14. Local Plan Policy DM7 states that new buildings and structures will be granted where the development does not conflict with the purposes of the Green Wedge and is for essential infrastructure which supports potential utility infrastructure where the Green Wedge location is appropriate and the benefits of which override the impact on the designation.
- 6.15. The Project would undertake minor works within the Green Wedge, with the provision of access roads. These roads would be for a temporary period for the duration of the construction, and in some cases provide a route for future maintenance. The haul roads would be made of granular sub-base or capping as set out in drawing, 'Typical cross sections of haul roads'. It is unclear whether these access roads into the Green Wedge would be of similar construction. Nevertheless, the roads used for construction only are intended to be returned to their previous state once no longer required, and CCC would request that the surface is considered carefully given its position in the Green Wedge.
- 6.16. The routes to be retained for maintenance have not been specified. CCC request this information to be provided with the Development Consent Order, so that the impact of these permanent routes on the Green Wedge can be considered and request that these are constructed in manner to contribute to providing opportunities for walking and cycling.

Rural Area

- 6.17. The impact upon the intrinsic character and beauty of the Rural Area will be considered below under Landscape and Visual.

7. Historic Buildings and Landscapes

- 7.1. The scheme through the Chelmsford section is not noticeably different from the previous options, so many of the comments from the previous non statutory consultations still apply. It still does not appear that the preferred option route is fully justified and the options to mitigate are too easily discounted.
- 7.2. The inclusion of heritage assessment work within the supporting evidence is welcomed. This seems somewhat overdue given the advanced nature of the

scheme alignment prior to the assessment work being undertaken. All relevant designated heritage assets within the 2km and 3km zones are identified.

- 7.3. Non designated heritage assets have not been adequately considered in the assessment work to date. Given Chelmsford's rich historic environment and the fact that there was no listing resurvey, there are potentially many non designated heritage assets of low-moderate value, which should be identified and the impacts on their settings fully considered. Likewise, locally listed buildings, protected lanes, designed and historic landscapes and other buildings and features of sufficient interest to be considered as non designated heritage assets should also fully inform assessment work.
- 7.4. The pylon route will be a massive intrusion of industrial scale features, which will impact considerably on the historic environment. The assessment work identifies permanent significant impacts on the setting of the grade I listed Langleys, Langleys grade II Registered Park and Garden and Great Waltham and Little Waltham Conservation Area's. This is the only location on the entire 184km route where permanent significant impacts are identified affecting any Conservation Area or Registered Parks and Gardens.
- 7.5. The most sensitive area on the route is that between the villages of Great Waltham and Little Waltham, where the route passes between the two Conservation Areas, close to the Langleys Registered Park and Garden and within the setting of the grade I listed house Langleys, the Ash Tree Corner Scheduled Monument, the Church of St Mary and St Lawrence (grade I) and 65 grade II listed and 2 grade II* buildings within 1km, also numerous non designated heritage assets including pillboxes associated with the GHQ defence line and various vernacular buildings. Most of these heritage assets have a rural setting which contributes to their significance. This harm would irreversibly destroy the unique and irreplaceable historic environment.
- 7.6. No mitigation or compensation measures are proposed in this sensitive area. Whilst it is acknowledged there are existing mature tree belts which will give some screening in summer, the impact will still be considerable, it is therefore essential that adequate mitigation is provided. National Grid's position that mitigation measures are not possible is unconvincing. There is a compelling case to find an alternative route, underground or use T-pylons for this section. Additional mitigation options should also be fully explored, including landscaping and heritage compensation measures. Whilst the Design Development Report refers to reduced heights east of Langleys, no further details are provided, making this aspect unclear.
- 7.7. There are also areas with permanent significant impacts near to the Church of St Mary, Stock (listed grade II*), Coptfold Hall, Margaretting (grade II listed barn and non designated landscape and buildings), southeast of Great Leighs at Goodmans Lane (group of grade II buildings), east of Writtle at Newney Hall and Sturgeons House (both grade II), and south of Writtle near to Southwoods Farm (group of grade II buildings). Again, no mitigation is proposed, but is essential.
- 7.8. Mitigation generally should ensure that land take is sufficient to allow for a range of mitigation options, for instance landscaping - potentially from closing up gaps in hedges to large scale woodland planting where necessary. Where harm is

unavoidable heritage compensatory measures should also be delivered, for instance repair of listed buildings and/or associated built and landscape features to offset harm to setting. This would be essential at Langleys, where there are a number of structures and features within the Registered Park and Garden, as well as the outbuildings and the house, which could have funded repairs to offset the acknowledged harm to the setting.

- 7.9. Little Waltham and Great Waltham are both picturesque villages with high quality vernacular historic buildings set within rural landscapes. The route comes to within c.155m and c.45m of the Conservation Areas respectively. The assessment acknowledges significant permanent harm to their settings' but provides no mitigation measures. Non-significant impacts are also identified to many listed buildings within the setting which should be considered cumulatively. These impact form part of an area of high heritage sensitivity, along with Langleys and other designated and non designated heritage assets referred to below.
- 7.10. Volume III of the Technical Appendices of the PEIR provides a detailed heritage assessment of the all the heritage assets within the routing corridor. Comments are set out below on the assessment.
- 7.11. Chelmsford Council have adopted local lists, known as the 'Register of Buildings of Local Value' for some parishes along the proposed preferred route – Broomfield, Chignal, Mashbury and Writtle. Further details can be found at: [Historic and important local buildings \(chelmsford.gov.uk\)](https://www.chelmsford.gov.uk/heritage). These buildings and structures should be included within the assessment as non designated heritage assets, their value and the impact of the proposals assessed, with mitigation proposed as necessary.
- 7.12. In addition to those buildings on the local list, other non designated built heritage assets within the 250m zone should also be identified and assessed within the report. This is particularly important where the local list does not currently cover relevant parishes – Great Leighs, Great Waltham, Little Waltham, Stock, Margaretting and Roxwell parishes.
- 7.13. Protected Lanes should also be identified within the evidence base, assessed and impacts mitigated. They should be considered as non designated heritage assets. The proposed route crosses or passes close to a number of Protected Lanes, including:
 - Boreham Road, Great Leighs
 - Goodmans Lane, Great Leighs
 - Paulk Haul Lane, Little Waltham
 - Scurvey Hall Lane, Great Waltham
 - Larks Lane, Great Waltham
 - Broads Green, Great Waltham
 - Newney Green, Writtle
 - Nathans Lane, Highwood
 - Ivy Barns Lane, Margaretting
- 7.14. Coptfold Hall has a designed landscaped originating from the eighteenth and nineteenth centuries, including woodlands, gardens and historic buildings. It is included on the Essex Gardens Trust Register of Designed Landscapes and should

be considered as a non designated heritage assets in accordance with Chelmsford Local Plan Policy DM14. The proposed route passes directly through the landscape and at present its heritage value is not acknowledged. The site should be assessed, the impacts considered and mitigated.

- 7.15. Pleshey Castle Scheduled Monument (also designated as a Conservation Area and including one grade I listed building, one grade II* and 25 grade II listed buildings) lies outside the 3km zone, but was previously identified due to the potential for impacts on the wider setting. The viewpoint included within the landscape assessment from the adjacent public footpath is not adequate and a viewpoint should be taken from the top of the castle motte. These heritage assets should therefore be identified and assessed within the evidence base.
- 7.16. Langley House is grade I listed and lies within a grade II Registered Park and Garden. The house has major phases from c.1620 and c.1720 and has exceptionally fine interiors and architectural interest, together with ancillary buildings and landscape features. Given the exceptional level of architectural and historic interest the site has and its continued occupation as a single house within a parkland setting consideration should be given to judging it as being of very high heritage value.
- 7.17. A group of WWII pillboxes and archaeological remains of WWII defensive features forming part of the GHQ defence line are adjacent the proposed route between Little Waltham and Great Waltham. The assessment identifies these as being of low value and the former anti-tank ditch of medium value. Their setting is not assessed, only their historic interest. It is considered the group value, intervisibility and overlapping lines of fire, together with the rural setting contribute to the setting of the and significance of the features. The close proximity of the proposed route will impact on their setting.
- 7.18. In some cases the report notes outbuildings to listed buildings as being non designated heritage assets. Where outbuildings/farm buildings meet the tests to be curtilage buildings, they should be referred to as so, as this acknowledges a higher level of significance and protection, than being non designated.
- 7.19. The following non designated heritage assets are recommended for inclusion within the study. It is not intended to be an exhaustive list, but identifies from the key non designated buildings within the 250m zone:

Great Leighs

- The Old Rectory, Boreham Road. Early nineteenth century gault brick former rectory. Low-Medium heritage value.
- Bishops Hall Cottage, early C20. Low heritage value
- Valentines, Boreham Road. Early-mid nineteenth century timber framed cottage. Low heritage value.
- 1 and 2 Lowleys Cottages, Goodmans Lane. Late C19 farmworkers cottages. Low heritage value.
- Chatham Hall Lodge, Braintree Road. C18/C19 Cottage. Low-Medium heritage value.

- Little Stonage Farm, Scurvy Hall Lane. C18/19 farmhouse. Low-Medium heritage value
- Auxiliary Unit Operational Base, south of Goodmans Lane. WWII. Low-medium heritage value.

Little Waltham

- Albion House, Braintree Road. C17 timber framed house. Medium heritage value
- Cresseners, Chatham Hall Lane. Early C20 cottage. Low heritage value.
- Little Waltham Church of England Primary School and School House, 146 The Street, Little Waltham. Mid C19 school and school masters' house. Low heritage value.
- The Cottage, 144 The Street, Little Waltham. C19 house. Low heritage value.
- 126 The Street, Little Waltham. C18/C18 thatched cottage. Low heritage value.
- 98 The Street, Little Waltham. Late C19 house. Low heritage value.
- 82 The Street, Little Waltham. C19 house. Low heritage value.
- 45-47 The Street, Little Waltham. C19 cottages. Low heritage value.
- Sparrow Hawks, Main Road, Little Waltham. C19 farmhouse. Low heritage value.

Great Waltham

- Pond Cottage, Chelmsford Road, Minow End. C19 cottage. Low heritage value.
- Lake View Cottages, Chelmsford Road. C19 Cottages. Low heritage value.
- Park Cottages, Chelmsford Road. Early C20 Cottages. Low heritage value.
- Rose Cottages, Chelmsford Road. C19 cottages. Low heritage value.
- Little Bakers, Chelmsford Road. C18 Cottage. Medium heritage value.
- Windmill House, Chelmsford Road. C19 former pub. Low heritage value.
- Corner Cottage and Meadow View, Chelmsford Road. C19 cottages. Low heritage value.
- 1 and 2 Poplar Cottages, Chelmsford Road. Late C19 cottages. Low heritage value.
- The Red House, Larks Lane. Early C20 house. Low heritage value.
- Primrose Cottage, Larks Lane. Early C19 cottage. Low heritage value.
- Plum Tree Cottage, Larks Lane. Mid C19 cottage. Low heritage value.
- Yellow Cottage, Larks Lane. Early C19 cottage. Low heritage value.
- 1-2 and 3-4 Rose Cottage, Broads Green. C19 cottage. Low heritage value.
- Lilac, Mead, Cosy and Kelmscott Cottages, Broads Green. Mid-C19 cottage. Low heritage value.

- Willow Cottage, Margarett Woods Road. C16 origins. Low-Medium heritage value.

Broomfield

- Scravels Farmhouse. C17 origins. Local list. Medium heritage value.

Chignal

- Woodhall Farm, Woodhall Road. C18 or earlier. Local list. Farmhouse and Barn. Low-Medium heritage value.
- Beaumont Oates, Woodhill road. C19 farm buildings. Low heritage value.
- Brittons Hall Farm, Mashbury Road. C18 farmhouse. Local list. Low heritage value.
- The Three Horse Shoes (formerly). C18 pub. Local list. Low heritage value.
- The Old Rectory, Mashbury Road. 1834. Local list. Low-Medium heritage value.
- 1-3 Pit Cottages, Mashbury Road. Mid-C19. Local list. Low heritage value.
- K6 Telephone Kiosk, The Green/Mashbury Road. Local list. Low heritage value.
- Pengy Mill. C17 origins. Local list. Medium heritage value.

Writtle

- Sturgeons Farm, C19 farm buildings. Local list. Low heritage value.
- Montpelier's Farm, Margarett Road. Local List. C16/17. Medium heritage value.
- Gable Cottages, Margarett Road. Local list. 1840. Low heritage value.
- Ropers Farm, Margarett Road. Local list. C18/C19. Low heritage value.
- Lee Farm, Highwood Road. Local list. C18. Low heritage value.

Roxwell

- The Hare Roxwell, Roxwell Road. C17/C18 pub. Medium heritage value.
- 1-4 Batemans Cottages, Roxwell Road. Mid C19 Cottages. Low heritage value.

Margarett

- Copfold Hall Landscape. Essex Gardens Trust site – to be considered as a landscape non designated heritage asset.
- Copfold Farmhouse, Writtle Road. C19 farmhouse. Low heritage value.
- Furze Hill, Ivy Barns Lane. C19 country house now hotel. Low heritage value.

- Margaretting Primary School, Pennys Lane. 1864. Low heritage value.
- Handley Green Farm and Cottages. C18/C19. Low-Medium heritage value.
- The Old Vicarage, Church Lane. Early C19 and C18. Low heritage value.
- Ivy Cottages, Canterbury's Cottage and Canterbury's Lodge. C19 cottages. Low heritage value.
- Buttsbury Hall Farm, Stock Road. C18/C19 farmhouse and farm buildings. Low-Medium heritage value.

7.20. In terms of the assessment of heritage value/significance the following comments are made:

7.21. The agricultural landscape to the west of Broomfield Conservation Area is considered to form an important part of its setting and contribute to its significance. Its wider extended setting is considered to include the draft order area. The impacts on its setting should therefore factored into the assessment.

7.22. The outbuildings at Lyons Hall (1122128) are considered to be curtilage listed, rather than non designated, due to their ancillary functional relationship with the listed building.

7.23. The Church of St Mary and St Lawrence (1122058) at Great Waltham is a notable feature in the landscape, the proposed routing would form a backdrop to the tower in views from the north/northwest/northeast and the order limit should be considered to include its wider setting with the impacts assessed accordingly.

7.24. Hoe Street Farmhouse (1235763), its associated group of buildings and remains of the moat, represent an important group, together with the association with James I should be considered to be of high (rather than medium) heritage value. The impact on setting is assessed as negligible, which is not agreed.

7.25. Bishops Hall (1171200), Bishops Hall Cottage (1122129), 1 and 2 Larks Lane (122083) and Ramsey Tyrells' (1236593) are in reasonably close proximity to the order area. It is considered that the rural context forms part of the setting to these listed buildings. At present these buildings are scoped out, but there would be an impact on their settings', which should be scoped into the assessment.

7.26. The following buildings are scoped into the assessment, but the level of impact is not concurred with:

- Balls Farmhouse (1305428) – high impact on setting (rather than medium)
- Hole Farmhouse (1338437) – medium impact on setting (rather than low)
- Barn at Hole Farm (1171364) – medium impact on setting (rather than low)
- Vault West of Partridge Green Farm (1306289) – High impact of impact on setting (rather than medium)
- Rose and Crown (1122116) – medium impact on setting (rather than low)
- Coptfold Hall Barn (1247784) – medium impact (rather than low)

- 7.27. Short term construction impacts should also take account of the considerable removal of hedgerows and vegetation, which would have a notable impact on setting. Whilst mitigation re-planting can limit this impact, it would take many years to mature to a level where the pre-existing conditions are reinstated. This is particularly the case in the section of the routing at Great Waltham.
- 7.28. Overall, the proposed development would introduce vast incongruous features of industrial character into a rural landscape, which would have considerable impacts for the historic environment. The assessment does not adequately take account of the local heritage features, as outlined above. The scheme also underestimates the impacts on many heritage assets. The greatest impacts are at the section of route between Little Waltham and Great Waltham, near to Langleys and its Registered Park and Garden. The lack of mitigation is wholly unacceptable.

8. Residential Amenity

- 8.1. The "Holford Rules" are used as the guiding principles for routing new overhead lines. These were originally formulated by Lord Holford, formerly an adviser to the Central Electricity Generation Board (CEGB) in 1959, and later reviewed and supplemented by National Grid in the 1990s. These deal with a number of areas including route planning considerations for areas of high amenity value, scientific interest and urban areas.
- 8.2. The Holford Rules are not specific about residential amenity and simply states "Avoid routing close to residential areas as far as possible on grounds of general amenity".
- 8.3. The main considerations for residential amenity are the visual impact, in terms of whether or not the pylons would be overbearing to the residents, the perceived health impacts and any noise nuisance arising from the long-term positioning of the pylons close to residential properties.
- 8.4. It is noted that the alignment has been marginally moved in order to address the closeness to some residential properties, however, the pylons are still considered to be too close to some individual dwellings. The dwellings most affected and the relevant pylon numbers are listed below:
- TB141 – 136m from Balls Farm
 - TB142 – 143m from Annex at Two Hoots
 - TB153 – 190m from Springwood, Mashbury Road
 - TB154 – 150m from Brittons Hall Farm
 - TB160 – 174m from The Haven
 - TB167 - 144m from Range Cottage
 - TB169 – 129m from Annex at Halfway House
 - TB172 – 173m from Greenacre, Bumpsteads Farm
 - TB178 – 150m from Inner Lodge Writtle Road
 - TB179 – 177m from Hoopers, Ivy Barn Lane
 - TB180 – 127m from Marshalls Farm
 - TB190 – 86m from White Tyrrells Cottages
- 8.5. It is recognised and welcomed that most of the pylons have been sited so that they are not positioned either directly in front of or directly to the rear of residential properties. This helps to limit the possibility of the pylons being in the direct line of sight from front and rear facing windows. This is not, however, the case for TB180,

which would be in the direct line of sight of Marshalls Farm and should be re-positioned.

- 8.6. In addition, those pylons that are in close proximity could still be considered overbearing to the garden areas of these properties and could still result in concerns over health from electric and magnetic fields (EMFs). Pylon TB190, in particular, is far too close to White Tyrrells Cottages.
- 8.7. EMFs are associated within most electrical apparatus including overhead lines. They diminish rapidly with distance from the source. There is an ongoing debate over the possibility that EMFs could result in a hazard to health and the balance of the scientific evidence to date is against there being health effects. The Government has however brought EMF exposure limits into force in the UK. For public exposure the UK policy is to comply with the 1998 ICNIRP guidelines. In practical application this means an exposure limit of an electric field of 9kV/m and a magnetic field of 360uT where the time of exposure is significant; this will include domestic premises.
- 8.8. Policies for both noise and EMF are incorporated into the decision-making process for development consent as set out in National Policy Statement (NPS) EN-5. It is understood that National Grid will ensure that all its equipment complies fully with those policies and guidelines. An EMF compliance report is proposed to be submitted with the Development Consent Order. These are welcomed, however, given the fact that research is still ongoing, a precautionary approach to site the pylons and wires as far away from the residential properties as possible should be taken.
- 8.9. In terms of the noise impacts of the development it is understood that the overhead lines can generate a crackling sound accompanied by a low frequency hum known as "corona discharge". Whilst the overhead lines are constructed to minimise this it is understood that weather conditions, particularly damp weather can result in higher noise levels. The National Grid's own document "Design Guidelines for development near pylons and high voltage overhead power lines" states that it is possible for the developer to mitigate significantly the effects of noise from an existing overhead line by attention to site layout and design of new developments, for example by including landscaping or by placing the noise sensitive elements away from the lines.
- 8.10. The PEIR advises that embedded mitigation measures designed to avoid/reduce significant effects include sensitive routing and siting. It is considered that the pylons and wires located close to residential properties, as set out above should be moved further away as part of this mitigation.
- 8.11. It is understood that further assessment of construction noise, construction vibration and operational noise will be undertaken in the Environmental Statement.
- 8.12. The plans submitted show construction works close to and dissecting some residential plots but the detail of the specific works is not available. There are some pulling stations close to residential properties, such as Bylake Kennels, Roxwell, for example. It is not clear how long the works at pulling stations would be needed for and how this might affect the amenities of the neighbours. Similarly, some construction routes dissect or run close to private plots and it is not clear how long these would be needed for and how the amenities of the residents will be protected.

For example, the area around Copfold Hall TB177 and TB178, the construction routes seem very intrusive to the residents.

- 8.13. A main construction route for HGVs is also shown to run through Margaretting. ECC Highways have suggested using the existing slip road on the A12 instead of routing through Margaretting, and whether NG could achieve access from Writtle Road rather than using Ivy Barns Lane, which is unsuitable.
- 8.14. Further consideration is also needed to minimise total vehicle miles with associated reductions in emissions in transport.
- 8.15. The programme of working hours set out in Section 2.3 of the Draft Outline Construction Traffic Management Plan is beyond the working hours that would ordinarily be accepted as reasonable working hours. Working hours should exclude working after 1pm on Saturday and no working on Sunday and bank holidays, to allow much needed respite for residents at these more sensitive times. A full construction management plan would need to be submitted as part of the Environmental Statement to ensure that the amenities of neighbouring residents are protected throughout the construction period. In addition, the air quality impact assessment sets out that it will be necessary for the applicant to develop and implement a dust management plan for the construction related activities.

9. Landscape and Visual

- 9.1. The route planned through Chelmsford traverses rural landscapes. The Holford Rules, which advise the hierarchy for the placement of routes, state 'where possible choose routes which minimise effects on Special Landscape Areas, areas of Great Landscape Value and other similar designations of County, District or Local value'. CCC policy adheres to national policy on local landscape protection and base their policy on local landscape character assessments not designated are effectively penalised via this advice. The Holford Rules appear to have been last updated in the 1990s and would seem to be at odds with current general national landscape policy and guidance.
- 9.2. The treatment of undesignated landscape as blank space is compounded by adherence to Rule 5 of the Holford Rules which states that in routeing of high voltage overhead transmission lines, these should '... be kept as far as possible from smaller lines, converging routes and other poles, masts, wires, and vales to avoid a concentration or 'wirescape'. This has the effect of distributing adverse impacts over a wider area of unspoilt countryside rather than containing them in a narrower corridor.
- 9.3. Whilst existing landscape character assessments in the area may have some analysis of value, such data is not necessarily consistent with current understanding of valued landscapes and does not necessarily reflect current understanding of landscape in terms of sense of place and identity, cultural heritage, artistic inspiration, sustainability nor mirror current policy.
- 9.4. The Landscape Institute produced guidance on how to assess landscape value in 2021. The guidance clarifies that landscape value is the relative value or importance attached to different landscapes by society on account of their landscape qualities. It is considered that an up-to-date assessment of landscape value along the proposed swathe is required in order to understand what valued landscapes there are and what will be lost in the process of creating a substantially overhead cable route in the east of England. A valued landscape assessment should form part of the

Landscape and Visual Impact Assessment submitted as part of the DCO submission.

- 9.5. CCC sits within two National Character Areas, NCA 86 South Suffolk and North Essex Clayland and NCA 111 Northern Thames Basin. The East of England Landscape Typology (Landscape East, 2010) is a regional level study which identifies Landscape Character Types (LCT), four of which are along the proposed line. The Essex Landscape Character Assessment identifies the Landscape Character Areas (LCA) of Chelmsford, Braintree and Brentwood district areas, of which 15 are identified along the proposed line.
- 9.6. The PEIR acknowledges that the Project will have a significant negative landscape and visual impact at both construction and operational stages over the length of the Project. This is identified as up to 1Km from the Project in many situations. CCC consider that based on the information supplied, that significant negative impacts could occur at a greater distance than that identified.
- 9.7. The approach to the preliminary Landscape and Visual Impact Assessment (LVIA) is identified as in accordance with the 'Guidelines for Landscape and Visual Impact Assessment,' Third Edition (GLVIA3, 2013). Even where the effects are deemed not significant, the character of the landscape is changed over a much wider area, with proposed overhead lines reducing the provision of what GLVIA3 (Page 18. Para 2.11) describes as:
- Opportunities for aesthetic enjoyment
 - A sense of place and a sense of history which contributes to individual, local, national and European identity.
 - Inspiration for learning, as well as for art and other forms of creativity
- 9.8. The LVIA does not appear to include details of the agreed criteria on which the assessment judgements are based. Without details of these criteria, it is hard to appraise whether the impacts are significant or not. Where negative effects are judged not to be significant the experience of receptors is still likely to be negatively affected over a wide area, reducing aesthetic enjoyment, the sense of place, history and identity, and inspiration for learning.
- 9.9. The LVIA suggests that significant effects would likely be substantially limited to within 1 Km of the proposed line, generally at both construction and operations stages. Whilst accepting that at construction stage this is likely to be the situation in many instances, it is not accepted that this would be the case at the operational stage where the outcome is generally an overhead line with 50m pylons as opposed to undergrounding, and where intervisibility is frequently quite high.
- 9.10. The visualisations demonstrate that within the CCC area, the landscapes affected are often undeveloped, rural landscapes where intervisibility can be high due to large scale flat or gently undulating landscapes or where the scale of the pylons and overhead wires means the effect is a perceived industrialisation of the countryside up to 2Km away that can be significant in places. These are often landscapes without existing significant detractors.
- 9.11. In relation to specific Landscape Character Areas (LCA) the following comments are made:

LCA B1: Central Essex Farmlands

Query whether the operational effect would be significant negative only at 1Km or less as the presence of the 50m high pylons and overhead lines would likely have an impact on the sense of rurality and tranquillity, a key characteristic of the LCA as noted by the assessment.

LCA C5: Chelmer Valley

The Project would result in direct effects arising during construction which would include the removal of some landscape features including the disturbance to farmland (mainly arable fields) and riparian habitat associated with the River Chelmer and the loss of some field boundary hedgerows, field trees, and hedgerow trees. All of which form key characteristics of the LCA. Features such as hedgerows, riparian vegetation and hedgerow trees are present throughout the landscape and are well connected linear features. The disturbance or removal of part of these features does not limit effects to 1km of works. Fragmentation of these features potentially have significant impact in the wider LCA.

Furthermore, assessments have been made on the basis that beyond 1km of the Draft Order Limits, layers of vegetation including hedgerows and field boundary trees would reduce intervisibility with the wider LCA. Therefore, removing these elements would directly contradict justification of reduced intervisibility.

LCA D2: Brentwood Hills

The semi-enclosed nature of this LCA is noted and key characteristics such as undulating hills/ridge, semi enclosed character due to presence of numerous woodlands, frequent hedgerow trees and patchwork of small irregular pasture/arable fields within the scope of the landscape assessed. Severance of these elements could potentially cause effects further than 1km.

LCA G2: Chelmsford and Environs

The Project intercepts this LCA only between TB165 and TB168. The effects on the LCA would likely be significant (negative) within approximately 0.5 km of the draft Order Limits, and less likely to be significant elsewhere in the LCA.

- 9.12. The Zone of Theoretical Visibility (ZTV) mapping indicates relatively widespread theoretical visibility of the overhead line within the 3 km study area including from villages, the PRoW network, National Cycle Network routes in this area, from the rural lanes and road network. This highlights how widespread the potential negative landscape and visual effect of the scheme are.
- 9.13. The study also identifies that there would be theoretical visibility of one or more pylons from ground level to tip from the majority of the study area. From the more elevated parts of the study area, it is identified that there would be theoretical visibility of up to 80 pylons. This also highlights how widespread the potential negative landscape and visual effect of the scheme are.
- 9.14. The LVIA groups the viewpoints where visual receptors have been grouped according to Visual Receptor Areas (VRA). These VRAs have been identified based on geographical location, shared landscape characteristics and a similarity in the nature of views. It would be expected that the groupings might follow the landscape character areas or types far more closely.
- 9.15. In relation to the individual VRAs the following comments are made:

F1 – Great Leighs

This VRA is represented by Viewpoint (VP) 6.01 Great Leighs. It is agreed that the undulated well wooded landscape creates intermittent long distance views in this VRA, higher ground to the north of this viewpoint offers longer views. The City Council would welcome the additional VP 6.03 to the south to be assessed as this is located on a similar elevated position. For the most part effects beyond 1.5km are unlikely due to woodland blocks and undulations, however, there should be an assessment from footpath Great and Little Leighs 35 to the northwest beyond 2km to confirm this.

F2 – Peverel's Farm

This VRA is represented by VP 6.02 Essex Way near Fuller Street. This location presents gently undulating countryside views in all directions incorporating agricultural landscape falling to the south and plateau to the north. There is a high perception of existing pylons here. Despite the removal of some existing pylons, cumulative impact would likely degrade the landscape further by closing the openness to the north. Furthermore, the assessment covers 270 degrees of the view and omits the 90 degrees that incorporates the removals. This orientation should be included to provide wireframes demonstrating the effects of removals. The City Council is concerned that the effects are limited to 1km and it is therefore considered that views should be assessed from footpath Little Waltham 14 and Great and Little Leighs 56 beyond 1km.

F3 Great Waltham

This VRA is represented by VP 6.18 Langleys Park, Great Waltham. It is agreed that there will be close views from Langleys Parkland however there are concerns regarding the impact of the historic landscape setting associated with Langleys House. The viewpoint comprises the building itself and associated parkland trees that frame it. While views would likely be filtered, the introduction of pylons will likely degrade the setting entirely forming a backdrop behind the wider landscape. It is recommended that the Saffron Trail at footpath Great Waltham 46 is assessed for the effects beyond 1km.

F4 Little Waltham

VRA F4 is not clearly labelled on the map and therefore it is believed to be the unlabelled area south of F2, north of F6 and southeast of F3. There are no representative VPs within this VRA. While built settlement reduces the potential of visual impact within the wider landscape, it is recommended that the area in the northwestern corner of the VRA around footpath Chelmsford Garden 35 where elevated landscape could offer views north toward the Project particularly during construction is assessed.

F5 Chignal Smealy

This VRA is represented by VP 6.04 Broad's Green and VP 6.12 Pleshey Castle (outside the western edge of F5). VP 6.04 comprises fragmented mid distant views incorporating hedgerows, tree lines and clusters of trees. There are continued views travelling south along the PRow passing under the Project where a greater impact is anticipated from the turning pylon hidden behind the copse of trees in this VP 6.04. Due to the scale of the VRA, limited urbanised settlement and open agricultural flat landscape, a wider assessment should be undertaken around the area of the 'Chignals' to assess effects beyond 1km.

F7 Roxwell

This VRA is represented by VP 6.06 Roxwell. Cooksmill Green is an area where views would be experienced and therefore assessments should be carried out in this area extending north along byway Roxwell 70 and footpath Highwood 2.

F8 Writtle and Chelmsford West

There are no representatives within this VRA. Viewpoints are welcomed to the west of Writtle from the National Cycle Network (NCN) that travels through Anglian Ruskin University Writtle to assess effects beyond 1km.

E9 Edney Common

This VRA is represented by VP 6.09 Edney Common. For road users the roadside of this viewpoint is defined as managed hedgerow with intermittent views through gateways and hedge gaps. This VP does not represent the worst view along Highwood Road and could be misrepresenting the view by virtue of the location in front of a hedgerow. The Project crosses a section of the same road (Highwood Road turns into 'The Causeway') which is open with no hedgerow, which would be a more appropriate position for the viewpoint. While views are limited to the south of the area beyond 1km due to intervening woodland, the area west of Edney Common around footpath Highwood 7 should be assessed where long distance views are possible.

F10 Hylands Park

This VRA is represented by VP 6.15 Widford, Hylands Park. The City Council is concerned with the lack of assessment within Hylands Park given there are likely some long distance views from higher ground within the Registered Park. This assessment should be undertaken to confirm that significant (negative) effects are limited to 1km.

F11 Margaretting and Stock

This VRA is represented by VP 6.11 NCN Route 13 and St Peter's Way. Given the scale of this VRA, limited urbanised settlement and open agricultural flat landscape, a wider assessment needs to be undertaken around the area of the Stock to confirm that significant (negative) effects are limited to 1km.

- 9.16. The Design Development Report states that NG seek to reduce and re-position pylons to the east of Langleys Park and Garden to reduce effects on landscape in this area. Any reduction in height is likely to result in the positioning of pylons closer together. Since no further details are provided, it is unclear the impact of such change would have.

10. Archaeology

- 10.1. The Project will result in an impact on setting of designated assets and below ground archaeology from the construction of the pylons the haul road and compounds and access tracks. The main impact in relation to the below ground deposits will be the construction of a haul road needing a width of up to 21m of land take, capable of taking two lorries along the length of the route and foundations of 60 x 60m for the crane bases at each tower required for their construction.
- 10.2. The route bisecting the area between Little and Great Waltham lies within a highly sensitive area with extensive known archaeological deposits
- 10.3. Following further archaeological assessment in the Little Waltham area, with regard the proposed order limits there are serious concerns that the extent of the proposals

will impact the Ash Tree Corner Scheduled Monument (1002140) to the west of the Chelmsford to Braintree Road. This was scheduled following the large scale excavations undertaken by Paul Drury along the Little Waltham bypass.

- 10.4. The excavations found evidence of largely Iron Age occupation in the form of numerous round houses of mid to late Iron Age date as well as other features associated with the settlement. The excavation was concentrated on the road line, however, it was clear that occupation extended beyond this as hypothesised in figure 8 of the Little Waltham report (Excavations at Little Waltham 1970-71 a mainly Iron Age and Romano-British settlement site (archaeologydataservice.ac.uk)).
- 10.5. The area scheduled unfortunately is an old County number and has no details on how its extent was determined. Recent excavations, and geophysics in adjacent fields to the south has shown a large extensive Late Iron Age complex (excavation) including settlement and field patterns, and another probable more complex settlement on the southern edge of Little Waltham geophysics. This work is showing a major settlement surviving over a considerable period on the western side of the Chelmsford Road and suggests that the occupation may be wider than was suggested at the time of the excavation publication.
- 10.6. The route also abuts the site of a probable Roman villa (6099) and temple (6062) to the west of Broomfield, known from a range of data, and is likely to be more extensive than the present evidence suggests and will extend into the order limits. If further work was undertaken and the site defined this would likely be of scheduled standard and should potentially be regarded as of high value for this Environmental Statement.
- 10.7. The sequence of WW II pillboxes around the River Chelmer and Little Waltham form part of the regionally important GHQ defence line and this should be taken into account when providing a value to these heritage assets. This is identified in paragraph 3.7.422 in relation to the anti-tank ditch but needs to be extended to the other assets forming part of this important line of defensive structures.

11. Ecology

Designated sites

- 11.1. The PEIR states designated sites within 30km of the project were included within the assessment. The nearest Habitats sites within Chelmsford (Section F) are:
 - Crouch & Roach Estuaries Special Protection Area (SPA) – The River Crouch occupies a shallow valley between two ridges of London Clay. Unlike more extensive estuaries elsewhere in Essex, this leaves a relatively narrow strip of tidal mud which, nonetheless, is used by significant numbers of birds. The site is of importance for wintering waterbirds, especially dark-bellied brent goose *Branta bernicla bernicla*. The site is approximately 14.3km from the draft Order Limits.
 - Crouch & Roach Estuaries Ramsar – cited for extent and diversity of saltmarsh habitat present, rare plants and animal species, the full and representative sequences of saltmarsh plant communities and internationally and nationally important numbers of numerous species of wintering wildfowl and waders. The Ramsar is located ~14.3km from the draft Order Limits.
 - Essex Estuaries Special Area of Conservation (SAC) – cited for important coastal

habitats. The SAC is located approximately 14.3 – 16.7km depending on location along the project route from the draft Order Limits.

- Blackwater Estuary SPA - cited for supporting summer, nationally important breeding populations of an Annex 1 species (Little Tern), nationally important wintering populations of an Annex 1 species (Hen Harrier) and internationally and nationally important numbers of numerous species of wintering wildfowl and waders. The SPA is located ~16.7km from the draft Order Limits.
- Blackwater Estuary Ramsar – cited for extent and diversity of saltmarsh habitat present, rare plants and animal species, the full and representative sequences of saltmarsh plant communities and internationally and nationally important numbers of numerous species of wintering wildfowl and waders. The Ramsar is located ~16.7km from the draft Order Limits.

11.2. The River Ter Site of Special Scientific Interest (SSSI) has potential to be impacted indirectly by the works as the SSSI has hydrological connection to the draft Order Limits via the River Ter. Chelmer Valley Riverside local nature reserve (LNR) also has potential to be impacted indirectly by the works as the LNR has hydrological connection to the draft Order Limits via the River Chelmer.

Non-Statutory designated sites

11.3. Bushy Wood Local Wildlife Site (LWS) has overlapping borders with the draft Order Limits and a potential for direct impacts. There are 26 Local Wildlife Sites within close proximity which have potential to be indirectly impacted. It is important that the alternatives considered, impacts assessments and associated mitigation proposals are detailed in the Environmental Statement.

Ancient woodland

11.4. The route appears to generally be located across arable land, the buffer is adjacent to several ancient woodlands (Irreplaceable Habitat). Notably, Writtle-Writtlepark Wood and Bushy Wood are located within the draft Order Limits. There are several other ancient woodlands within close proximity of the project boundary, which could be indirectly impacted (e.g. changes to hydrology). Appropriate measures will need to be taken to protect these ancient woodlands.

11.5. Smaller ancient woodland parcels (< 2ha) are not included in the Natural England inventory, and likewise individual ancient and veteran trees may not all be inventoried. The completed habitat survey work must identify any such features in the study area.

Hedgerows

11.6. It is noted that all hedgerows within the draft Order Limits will be surveyed as part of the habitat surveys. Hedgerows that are more than 30 years old will be assessed by an ecologist as to whether they meet any of the eight criteria outlined in Part II, Schedule 1 of the Hedgerows Regulations (HMSO, 1997). This is welcomed.

Protected Species

Great Crested Newt

11.7. It is understood that National Grid has agreed with Natural England to apply to the District Level Licensing scheme for Great Crested Newt (GCN) instead of surveys. A countersigned impact assessment and conservation payment certificate (IACPC) will be needed to support the DCO. It is therefore acknowledged that GCN are therefore now scoped out from further assessment in the ES. However, it is expected that best practice methodology will be used during the construction phase to mitigate for potential impacts on other mobile species such as Priority amphibians, reptiles and Hedgehog.

Hazel Dormouse

11.8. Hazel Dormouse are present in Hylands Park LWS and Swan Wood LWS, as shown in Table A8.8.3. Many locations in Essex, including woodlands, have not been previously surveyed for Hazel Dormouse, so the influence of absent records on identifying survey locations should be limited. It is recommended that the Essex & Suffolk Dormouse Group should be involved in consultations on survey methodology.

Otter

11.9. The methodology outlined for Otter is acceptable. Within Chelmsford (Section F), surveys will need to be conducted for the River Ter and River Blackwater to confirm presence / likely absence and extent of likely impacts upon Otter.

Bats

- 11.10. Bat Activity surveys have been undertaken (Appendix 8.6 and 8.7). However, only the desk study report is available at present as the results of the data collected during the 2023 surveys and the results of the Ground Level Tree Assessments undertaken between November 2023 and March 2024 (Section 4) have not been provided.
- 11.11. There are five high risk level areas and two medium risk level areas shown as identified within the Section F limits by Figure A.8.7.1. Further information is required as to how the static detector survey results were appraised, and the criteria used for judging if an elevated survey effort was warranted or not.
- 11.12. There are 3 roost records and 21 activity records for the rare Barbastelle bat in Essex (Table A8.6.4). This Appendix II species (Bern and Bonn Conventions) will need adequate assessment to avoid severance to foraging and commuting routes within any sustenance zones of a maternity colony.
- 11.13. It is suggested that where hedge crossings or removals are necessary to retain connectivity during construction, an alternative to dead hedging is the use of Heras fencing with camouflage netting attached. Place Services can provide more information on request. This temporary measure will be needed to enable certain bat species to continue to use affected hedgerows as part of their established commuting and foraging networks.

Reptiles

- 11.14. No 'Key Reptile Sites' have been identified from across the draft Order Limits within Chelmsford, but six locations have been identified as having suitability for reptiles: River Ter; River Chelmer; River Can and Former Brittons Hall Farm Landfill site;

Chelmsford Compressor Station; Land off Roxwell Road; Willowmere Lake and Associated Habitat; Writtlepark and Associated Woodlands

- 11.15. These six sites have been ruled out from further presence / likely absence surveys, either because impacts are considered avoidable or because displacement by habitat manipulation is the most appropriate mitigation solution regardless of survey result. Whilst the logic of this approach is understood in principle, the applicant will need to provide a supported argument as to why this is the best approach for reptile species. This should include demonstrating how effective mitigation will be achievable in all instances.

Breeding birds

- 11.16. Natural England are stated as agreeing the acceptability of the approach taken for breeding bird surveys, but also that they have not commented on the selection of survey locations.
- 11.17. Seven 'Areas of Potential Importance for Breeding Birds' have been targeted based on desk study and the perceived risk of impact. These are the only sites to be subject to breeding bird surveys. The survey areas will cover 200 m buffers around "key areas of effects such as cable easement, cable sealing end compounds and substations".
- 11.18. No Areas of Potential Importance for Breeding Birds were identified for Chelmsford within Section F.
- 11.19. The position that a draft Order Limits 184 km long and 100-220m wide (plus a 200m buffer) cannot be completely surveyed for breeding birds is recognised, and that identifying priority sites for survey is the practical solution. However, it will be necessary for the applicant to demonstrate that they have not overlooked sites worthy of survey within Chelmsford. Furthermore, it is still expected that there will be a well-reasoned estimate of the potential overall cumulative impact on breeding birds from the project.

Water Vole

- 11.20. The methodology outlined for Water Vole is acceptable. Water Vole are noted as being present at Chelmer Valley Riverside LWS, which is within 2km of the draft Order Limits. Within Section F, surveys will need to be conducted for the River Ter, and River Blackwater to confirm presence / likely absence and extent of likely impacts upon Water Vole.
- 11.21. The ES needs to provide clarification of the method used (i.e., habitat parameters) for determining the Water Vole habitat suitability of a watercourse, and more detail as to how the issue of dense vegetation was resolved so that it did not present a significant survey constraint.

Badger

- 11.22. It is understood that surveys are identifying all badger setts within 30m of the draft Order Limits, and that these surveys are ongoing. The mitigation hierarchy should be implemented to reduce the impacts to Badgers and their setts.

Other matters

11.23. It is understood that noteworthy habitats (potentially including Priority Lowland Deciduous Woodland and ancient woodland (irreplaceable habitat) at Bushy Wood, east of Woodhall Hill Road, CM1 4ST (Grid Ref TL 687 105) would be impacted by these works. It is advised that a thorough impact assessment be undertaken for this site, along with appropriate application of the mitigation hierarchy. This will be necessary to include in the Statement of Common Ground (SoCG).

12. Trees

12.1. The PEIR advises that for the route of the overhead lines the Project would require the removal of a 40 metre wide swathe (20 m either side of the overhead line) and potential additional removal or management of vegetation within 100 m (50 m either side of the overhead line). It is also understood that a typical 12 metre wide swathe may also be required for the temporary haul roads. Vegetation will also need to be removed to allow for the access of HGV vehicles on the primary construction route.

12.2. At Fairstead it is understood that to facilitate the construction of the underground cable a typical 120 m wide swathe of vegetation is expected to be removed. The combined impact of this level of vegetation clearance is significant and concerning.

12.3. The information submitted as part of this consultation is not sufficient for the City Council to be able to determine the impact of these vegetation losses. The City Council would like to see full arboricultural impact assessments submitted in accordance with British Standard 5837:2012. The surveys should be completed in advance of a design being fixed to prevent any conflict with high value trees, woodlands and hedgerows. Once the design is fixed, an Arboricultural Method Statement (AMS) and accompanying Tree Protection Plan (TPP) will be required to ensure retained trees are suitably protected throughout the course of the development.

12.4. Where any trees or hedges are proposed to be lost a full mitigation package for their replacement needs to be provided. Where a tree is to be lost, there should be four trees planted to compensate for this loss and the size and species should be agreed with the City Council. Similarly, any hedgerow removal should be compensated for with replacement hedgerows and connectivity maintained between existing wildlife corridors.

12.5. There is a concern that the route may result in the loss of veteran trees. It is therefore recommended that a veteran tree assessment coincides with any other arboricultural surveys to identify any veteran trees that are within 15 metres of the application area.

12.6. It is noted that the route runs through a preserved woodland at pylon TB156. The line should be amended here to avoid the clearance of preserved trees.

13. Highways

13.1. There could be impacts on the local highway network and Public Rights of Way from construction traffic, albeit short term during the construction phase, and on going maintenance/operation. CCC will be guided by Essex Highways as the lead authority for this matter.

- 13.2. Section 16.2 of the PEIR sets out matters in respect of NPS EN-1 and EN-5. Paragraphs 5.14.8 (disruption to transport services and infrastructure) and 5.14.12 (encouraged a modal shift of freight from road to other modes) of the EN-1 are not mentioned and should be considered by NG. Section 2.5 of EN-5 is also not mentioned and should be considered.
- 13.3. No details on the proposed phasing of the construction of the scheme has been provided, making the impacts difficult to fully understand and assess. Details on phasing and an indicative construction schedule would be expected as part of the DCO submission.

Road Network

- 13.4. It is unclear whether the study area, set out in section 16.5.2 of the PEIR includes junctions connecting with the Strategic Road Network, and these should be included, unless evidenced otherwise.
- 13.5. The assessment is based on the impacts on the Primary Access Routes, and these are required within the DCO submission, via the CTMP (Construction Traffic Management Plan), that these will be the routes utilised by construction traffic. There is no commitment on the number of vehicles using these routes, which brings risks to any conclusion on the extent of impacts, for instance caps on HGV numbers should be presented to give confidence in the assessed results.
- 13.6. Preliminary construction workforce numbers are indicated as 800 FTE (full time equivalent) employees, however, no evidence is provided to support these figures. More details will be expected at the DCO submission including the origin of these figures and the profile across the life of the project, including origins of the workforce and how that informs the assessment of travel to site and the Travel Plan. These assumptions should feed into management and monitoring within the relevant management plans, including around shift patterns. Consequently, as there is limited data on workforce numbers, any conclusions reached on impacts relating to vehicle movements is treated with caution.
- 13.7. The assessment is based on changes in daily traffic flow, consideration is needed towards assessing the hour of greatest change.
- 13.8. The assessment identifies 12 hours shift patterns and it is recommended through the CTMP that a monitor and manage process is embedded to ensure these shift patterns are monitored and commensurate with those assessed. Typical shift patterns would also be expected. If not, to either assess if the impacts are material or to identify additional management measures that can be put in place to address these impacts. As a large proportion of traffic impact is likely to therefore be in a short specific time frame and only assessing the 12 hour impact dilutes this impact against a greater baseline of traffic.
- 13.9. Consideration should be given to the impact on delay to the highway network as a result of the use of crossing points. Further information on the crossing points would be expected as part of the DCO including visibility splays, vehicle swept paths, traffic management, data on relative use of the access, road construction and Stage 1 Road Safety Audit with designer's response.

- 13.10. It would be beneficial for the Environmental Statement to give a clear understanding of the impacts at all the relevant locations, potentially setting out a profile of the project so it will be clear what impacts are short term.
- 13.11. When considering traffic flows a growth factor is referred to. This should be set out including how it has been calculated and details on the calculation method for obtaining 12 hour flows. There is a concern over whether the application of generic figures from the strategic road network is applicable on rural roads.
- 13.12. The requirement for further environmental assessment has been identified where the scheme may give rise to any significant and transport effects following the Institute of Environmental Management Assessment (IEMA) criteria, and this has been found to occur to primary access route 50, A1016, as collision clusters have been found at its junctions with Rainsford Road and Chelmsford Road. These are a proportional change in HGV's is greater than 30%, indicating a material impact. Further details are needed on the relative impact, the context of the collisions and the potential need for mitigation.
- 13.13. No mitigation is identified for the primary access routes, PAR 44, 46, 49, 50, 51, and 53. One of these is a sensitive location identified experiencing effects, discussed above, it is unclear why there no mitigation is required for these locations.
- 13.14. Pinch points should be considered along the Primary Access route providing access to H28-A2 and H29-A1, shown on the Construction Access Plans, including on Rainsford Road to the immediate west of its junction with the A1016 and further assessment of the A1060 junction with Park Avenue. It would also be beneficial to know whether the presence of the haul road would negate the need for any traffic to travel through Chelmsford. If this route is used, the City Council would want to see peak hour restrictions on HGV movements on this route. Furthermore, part of this route has a collision cluster and consideration should also be given to what measures can be put in place as a result of road speeds.
- 13.15. Access H25-A2 as shown on the Construction Access Plans would be via a layby to the side of A131 Braintree Road, and concerns are raised between a conflict between the use of the layby and the use of the access by HGV vehicles.
- 13.16. The CTMP needs to set out what elements of the works would be covered by its provision. The Project would result in the removal of vegetation to obtain adequate access for construction and this has the potential to create disturbance to the highway network. It is expected therefore for the CTMP to be applicable to all works.
- 13.17. EN-1 sets out the need for achieving sustainable transport patterns. Measures should be put in place that ensure high levels of car share or other non-car modes reflecting any assumptions within the ES and Transport Assessment. This should be monitored, reported and managed to respond to low levels of car share.
- 13.18. Any gates to the site should be set back to ensure that waiting vehicles have sufficient space to sit without blocking the highway. These should be shown on any relevant plans showing the access to the site. Typical elevations of these gates shall also be provided.

Public Right of Way (PRoW)

- 13.19. The PEIR sets out the impacts upon the PRow however, this spread across four chapters of the report. This makes reviewing the holistic impacts on the PRow more difficult, particularly given the likely significant impacts on the PRow network from the Project.
- 13.20. The removal of vegetation at the distance stated (set out in paragraph 4.6.1 of this response) and the installation of pylons is likely to have a major negative impact on enjoyment of PRowS. Given the negative visual impact NG should provide improvements to the PRow network rather the pre-construction condition. This may not be applicable to all sections of the affected PRow but, in those circumstances, where a change in surface condition, drainage improvement or the permanent removal of an unlawful structure could resolve a long term issue, it is reasonable for that to be provided as per EN-5.
- 13.21. NG should set out any opportunities to connect people to the environment via improved transport connections that the development could deliver to mitigate its impacts on the transport, and particularly PRow network.

14. Benefits

- 14.1. The Project does not appear to bring any direct socio-economic benefits to Chelmsford. Opportunities for community benefit from the Project should be explored, for example, providing jobs and training opportunities to local people both during construction and operation. Consideration should also be given to how the new infrastructure could connect with new housing and employment allocations and to the provision of a local community fund to assist the wider community affected by the Project.
- 14.2. During construction non-local workers would require accommodation in the local area therefore NG should provide further information on the construction employment numbers, particularly those outside the local area and the impact upon the local accommodation market.
- 14.3. The route abuts one of the largest Rural Employment Areas in Chelmsford, Reeds Farm near Writtle. It also crosses a number of farms and runs very near a Anglia Ruskin University (Writtle) site. The route also runs close to residential properties and between the settlements of Little Waltham and Great Waltham. National Grid will need to consider appropriate compensation packages for homes and businesses directly affected by both the construction works and any long term impacts.
- 14.4. Any Project for temporary accesses that are not needed for operation to be made permanent as a legacy benefit, need to be treated on a case-by-case basis. Any design may need to be altered in order to be commensurate with their future use rather than the temporary use during construction.
- 14.5. No details have been provided at this stage regarding community benefits and social value, which is a concern of the City Council. The City Council considers that a package of community benefits and social value should be provided to increase the benefits of the scheme. A Social Value Statement should be provided as part of the DCO submission.

15. Future Developments

15.1. Phase 2 of the Chelmsford North East Bypass has planning permission. Concerns are raised regarding the length of the route and position of the pylons TB130 - TB132 and their proximity to the Bypass and the areas needed to ensure construction.

15.2. The junction of the A1060 with Lordship Road is proposed to be improved as part of an 880 dwelling residential development to the immediate north of the A1060 (Application reference 21/01545/OUT). The City Council is concerned about the potential for the DCO and these improvement works being undertaken simultaneously. This needs to be considered to minimise impacts.

16. Other Matters

16.1. The route crosses the river Chelmer in the north and River Can and Wid and their tributaries in the west and south. The rivers and river beds are located within Flood Zone 3 and this needs to be considered when finding safe grounds for positioning of pylons, footing and maintenance. NG is encouraged to liaise directly with the Environment Agency and ECC Local Lead Flood Authority.

16.2. The proposed route passes through a large hazardous substance site safeguarding zone near Newney Green. This is likely to be a former gravel pit and now contains two areas of hazardous waste, with a contaminated land category 4. The proposed route contains four additional large areas of contaminated land in the middle or on the edge of the proposed route as well as several small sites. The final route needs to be very carefully planned to avoid disrupting any of these sites. NG should liaise directly with Essex County Council on this matter, as the waste and minerals authority. It may also be necessary to liaise with HSE.