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Mr Simon Pepper  
Senior Project Manager  
National Grid  
East Anglia Green

Our Ref: MW/EAG.NSR22  
Date: 16 June 2022

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Dear Mr Pepper

**RE: Town and Country Planning Act 2008. National Strategic Infrastructure Project East Anglia Green. Non Statutory Consultation Q2 2022.**

Thank you for consulting Essex County Council (ECC) in our role as statutory consultee on the above-mentioned non statutory consultation (21 April - 16 June). This response represents the corporate technical response from ECC at this time. ECC reserves the right to update our formal position which is one of objection, based on evidence, engagement and other matters during the progress of this project.

In summary ECC wishes to strongly object to the scheme as submitted within this non-statutory consultation and raises the following headline issues:

- ECC stand with the affected communities and Councils along the route of the proposal in objection to the development as is proposed at this time due to its significant and lasting detrimental impact on its residents, communities, landscape, environment and quality of life.
- ECC's wish is for the development to focus on a sea link solution negating the need for an overland based option.
- The route as given to us comes almost as fixed without the necessary evidence or engagement in pre consultation, hence this consultation itself is considered premature and misguided at this time.
- The proposals ignore in combination effects with other NSIP proposals including those coming forward for transport infrastructure including the A12 and potentially the A120.
- The development will prejudice planned for and potential areas of future growth in Essex.
- All options moving forward should be the subject of extensive consultation.

## **Overview**

In addition to our statutory role, ECC has a wider leadership role in protecting and promoting the interests of the county's communities, businesses and environment which are of utmost importance. We also recognise the contribution ECC makes to the unique character and quality of Essex as a place within the wider eastern region. Whilst acknowledging the Government's net zero objectives, ECC are mindful of energy security, carbon reduction and energy poverty issues related to the delivery of energy development schemes and offer this response in the context of how these issues affect the County and the wider region.

Within Essex there has been a notable increase recently in the number of NSIP proposals and other large-scale energy developments coming forward with a high proportion located within the eastern region. This means that some communities are seeing a multiple number of proposals being promoted in the same area. East Anglia Green makes the total of nine live NSIP projects in Essex at same time. Whilst it is understood that this NSIP proposal comes forward at this time, ECC remains concerned that there is no overall co-ordination between the projects, nor any assessment of their potential cumulative impacts, which is an omission that needs to be addressed.

Although ECC recognises the challenge of achieving net zero as set out by Government, to meet both the ongoing energy security concerns and recognises it's role in contributing to the government's climate change objectives, the EAG NSIP proposal would, by means of its size, nature and extent have substantial, lasting and seriously detrimental impacts on the residents, communities, businesses, infrastructure and environment of Essex. Hence ECC fails to be satisfied that this project, at this early non-statutory consultation stage represents the most appropriate solution to the network reinforcement objectives it is intended to address.

ECC's objective is to seek a coordinated, offshore approach to deliver the transmission network reinforcement objectives of this and other projects in the region, in order to minimise onshore infrastructure and the associated impacts on the Districts, City and Borough communities and the wider environment. The sheer scale and extent of this proposal as presently proposed should not be underestimated, as presented it will have a lasting impact on Essex for generations.

At this time, and on the basis of the information submitted by way of this consultation, and in the absence of greater clarity around the options for strategic offshore coordination of transmission reinforcement and a sub-sea alternative for this project, Essex County Council **strongly objects** to the proposed development at this time.

## **Background**

It is understood the EAG seeks to upgrade the capacity of the electricity network to facilitate an increase in transmission capacity from 3,200 MW of generation capacity currently to 15,000 MW of new generation plus a further 4,500 MW of new connections in the Eastern region. EAG would also connect two new offshore wind farms off the Essex Coast to the network (North Falls offshore and Five Estuaries currently in early project

development but predicted to be operational by the end of the decade) as well as having the capacity to connect new additional offshore proposals as may come forward to the Grid.

We understand the purpose of bringing forward this proposal has to align with decarbonising our energy economy, increasing UK produced electricity, and facilitating Net Zero emissions by 2050 which is a Government target.

The Government's Climate Change Committee predicts that electricity demand will double by 2050 and to respond it is recommended that renewable energy projects are deployed at a scale to include 40 GW of offshore wind by 2030 and 140GW by 2050 with 400,000 additional jobs required to service the sector. It is correct that 60% of offshore wind development brings energy along the East coast and consequently the existing network needs to be updated to meet this challenge of getting this consented power to the consumer.

We note that the National Grid publish annual recommendations in their Network Options Assessment Report (NOA). The need to reinforce the network within East Anglia has been identified as critical in both the 2020 and 2021 NOA reports to not only accommodate developments consented off the East Anglian coast, but to facilitate the development of others which are currently in the system.

National Grid have a duty under the Electricity Act 1989 to develop transmission network proposals in an efficient, coordinated, and economical way, and in manner which considers both people and places. Options to deliver additional network capacity must be evaluated against these statutory duties.

As a project, EAG seeks to reinforce the transmission network between the existing substations at Norwich Main in Norfolk, Bramford in Suffolk to Tilbury, Essex. This is mostly via an overhead 400KV line with lattice/other pylons and conductors with underground cabling through the Dedham Vale and Stour Valley AONB. A new substation is also proposed in Tendring District (Little Bromley). Cable Sealing End Compounds (CSE) are needed to connect sections of underground cable with the overhead line where the line moves from above/underground. The vast majority of the proposal hereby consulted on will run the entire length of Essex.

This non-statutory consultation presents EAG as a scheme which has undergone change to its route selection since conception. A number of options and/or technologies have been put forward including:

- On shore connection via Alternating Current (AC) overhead lines and underground cables through the AONB national designation.
- Offshore high voltage Direct Current (HVDC) cables.
- Onshore HVDC cables
- Upgrading existing infrastructure to 400 KV where currently operating at lower voltages.

## **Discussion and Recommendations.**

However, none of this optioneering process has been the result of consultation with ECC nor any other District Council in Essex or stakeholders as far as we are aware, and the reason given for the same is speed. It is acknowledged that there is a need to meet set targets, however with the proliferation of NSIPs' being consented and proposed, it seems that this Grid project is very late to being considered and has little if any early engagement within Essex or our communities. With development on and off the so called "Energy Coast", having been proposed and promoted for many years, it is correct to ask why EAG is so late to being put forward. To ECC it looks and feels like the EAG proposal has come forward as afterthought and has been promoted in a hurry, whilst it could have been appropriately planned, programmed and considered with both statutory consultees and with the many local communities it will significantly impact. This should have happened at a much earlier stage.

It is particularly unclear why sub-sea cabling options have not been brought forward for the eastern region in the same way as is being developed for the north of England and Scotland. Whilst this will have an impact, the value of doing this will be hugely significant as it will remove the need for an overhead connection throughout the centre of Essex, and indeed Suffolk and Norfolk, removing its massive impact on the landscape, communities, amenity, environment etc.

ECC share the view of many of our local communities that, as far as is practicable, new offshore generated electricity should be transmitted offshore, making landfall as close to the target population centres as possible. ECC acknowledge OffSET and the campaign for a comprehensive and joined-up offshore grid, which we believe is firmly in the interests of business - both offshore windfarms themselves and wider interests such as Sizewell, Felixstowe and Harwich Freeport East (Bathside Bay) would have significant and lasting environmental and social benefits and would help to futureproof the network making it more adaptable to future change.

It is also correct that the route as is proposed at this time would prejudice areas of planned for housing growth. The route as it is at this time, taking one example, proposes to go across the Dunton Hills Garden village, allocated in the recently adopted Brentwood Local Plan for strategic housing growth. In addition, placing the cable route on the periphery of many Essex towns and villages would restrict potential areas of planned future growth.

Essex contributes significantly to agricultural food production, the presence of a power connection could prejudice production of crops across its length, ruling out the use of some of the best and most versatile agricultural land as a result.

Essex also has an advanced strategic road network for the easy flow of goods and people throughout the County, contributing to its economic value. The route as is proposed has an unplanned for and confused relationship with the existing and proposed strategic road network including but not limited to the A12 (where it crosses the road twice) and the A120 which themselves are either currently proposed by, or anticipated to be the subject, of NSIP submissions. It does not appear that the current proposals plan for or take into account either at this time.

A NSIP project being progressed through the Development Consent Order process, has the duty to consult under the 2008 Planning Act, as well as the 2017 Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. As a project of this size, what is proposed will need to be accompanied by an Environmental Impact Assessment (EIA). The principle of the same is as set out in both statute and in accompanying case law.

The proposal as presented acknowledges that the development is at an early stage, with at least one additional stage of formal consultation as is currently proposed. It has to be remembered that the total length of this NSIP proposal measures 180km hence the potential significant, generational life changing impact on multiple communities cannot be understated. At this time as presented this very much feels like the NG's focus is on consulting on one chosen route corridor and one option within the same, and this is considered premature at this important time. We need to see alternative options and the evidence that sits behind each of these.

Therefore it is apparent that the NG is consulting on one route corridor and have either discounted or not fully assessed the other alternative options. This non statutory consultation has taken place after these decisions have been made by NG and in advance of stakeholders being able to see and evaluate the impacts of the alternatives.

The Project documentation states that studies will be carried out to inform design and decision making, which will then inform, for example, transport and construction plans. However, it is considered that as submitted the consultation does not, in any meaningful way, consider the material impacts of the currently discounted alternatives in either relative or absolute terms whatsoever. The consultation documents are all high level and consider what could be affected by the alternatives without looking at the actual environmental and social implications of the same.

Hence it is reasonable and correct to conclude at this time that NG have fixed the route and discounted alternative options, including additional undergrounding and undersea routes, upgrading existing infrastructure etc and without first evaluating and providing evidence necessary to the DCO process so the environmental and social impacts of the preferred corridor, when set against the alternative options, cannot, in any reasonable way, be considered as appropriate. ECC is of the view that the decision to fix the route within the currently consulted corridor is premature and unsupported by evidence, hence the preferred corridor route is also premature.

The current non-statutory consultation is therefore considered to fall unacceptably short in terms of providing evidence and information to make an informed comment on the environmental impact. In terms of what NG propose in mitigation to offset the significant impact of the proposal this is considered wholly underdeveloped.

Although it is acknowledged that the consultation is non-statutory, it nevertheless seeks to place value in the DCO process, and without evidence being provided as to the options within it, it cannot be foreclosed. ECC consider that the process needs to be revisited, considered and examined so responses to the alternatives, including an undersea link,

can be appropriately considered. The preferred route is set in this consultation as almost a “fait accompli” which in itself is not based on sound evidence and consideration.

It is remembered that there are other comparable NSIP proposals for Grid connection proposals, and here the current live Bramford to Twinstead project by NG is referenced. This project underwent significant pre-consultation discussions on route options over a long period of time, yet EAG has undergone none of this pre engagement whatsoever. This is considered a demonstrative and significant flaw in the process at this time with which proper planning could and should have been undertaken.

It is questioned whether this round of consultation fails to demonstrate the need for the connection as is proposed at this time, as it is lacking within the current electricity 10-year statement which would provide prima facie evidence on need. Similarly, the project is presented in advance of the proposed and imminent offshore transmission review, and the amended Network Options Assessment which will accompany it.

In the absence of greater clarity around the options for strategic offshore coordination of transmission reinforcement and a sub-sea alternative for this project, ECC consider that the overland alternatives for this are detrimental to both the new places that are being planned for, and the local communities it effects. The environmental harm caused by the development fails to be adequately explained, planned for, or mitigated against at this time.

Whilst recognising this is an early pre-application phase of engagement, there is absolutely no support from ECC as to the route as is preferred at this time. There appears to be scant explanation or justification for what was being proposed as this seems to have jumped to a solution rather than looking at options. EAG has departed from other energy infrastructure projects by looking at route options in isolation, and not in consultation with stakeholders, hence the option that is proposed seems imposed rather than on the basis of evidence or justification.

This consultation as submitted shows the project not at a formative stage, it is considered that there are insufficient reasons to substantiate the “preferred option” to enable constructive and informed responses for all consultees, which and as it stands significantly and demonstrably harms the consultation process for both the consultees and NG. It is acknowledged that the consultation at this time is non statutory, nevertheless its purpose is to seek to develop and shape the proposals as they come forward. Without adhering to the basic principles of consultation at the outset this means that the entire process will be ill informed, biased and skewed to its lasting detriment. Without an acknowledgment this proposal has been poorly prepared and inadequately communicated and evidenced, hence in the view of ECC this will be extremely difficult for NG to take forward without a pause and a serious rethink.

At this early non-statutory consultation stage, no background evidence is provided in support or explanation for scrutiny. Simply stating this will follow in later stages of engagement is not good enough. The project timetable seeks to submit a formal DCO application in December 2024 which is considered unrealistic given that the information that supports this consultation is required, to evidence options properly considered and to

be scrutinised. Whilst the Council and other stakeholders will be involved in a series of thematic working groups to investigate and influence how the proposal can best be finessed to minimise impacts on the environment, economy and communities, the route as is proposed at this time is underdeveloped and inadequately evidenced and will cause demonstrable harm to interests of acknowledged importance and the communities it will directly effect.

Without a detailed evidence base to assess the route options it is simply not possible to critically evaluate the validity of the suggested approach and conclusions drawn on technology, including but not limited to an undersea link, and routing to enable the magnitude of impact of the preferred scheme on key constraints to be objectively evaluated. The scale and extent of this development on Essex cannot be understated as this development will cause significant impact on the affected communities leaving them deeply concerned and fearful about the potential impacts. It is necessary for ECC, and its partner Local Authorities, to seek to ensure that these adverse impacts are minimised by the most appropriate choice of technology and detailed route planning, not simply the most economical solution for NG, or a route choice which is considered acceptable to without prior evidence gathering and engagement.

The discussion of offshore options in the Corridor and Preliminary Routeing and Siting Study Report (CPRSSR) are considered by ECC to be difficult to follow and not evidenced in terms of why the only offshore option to be progressed (as a separate project) is the Sea Link (Sizewell to Richborough). The constraints that have precluded taking forward offshore options of HVDC Cables for Norwich to Grain and Richborough to Sizewell, in conjunction with an AC Overhead line from Bramford to Tilbury (collectively Reinforcement Option East 12) are not readily apparent from the CPRSSR. Nor is it apparent why there is such a marked disparity in the cost benefit analysis between Option East 12 and NGET's preferred Option 7, when both include an offshore cable from Richborough to Sizewell and both include an Overhead line from Bramford to Tilbury. ECC remains concerned, as do our neighbours at Suffolk County Council, and as set out in their consultation response, that offshore options have been too readily discounted and excluded as options going forward without the necessary evidence. This is considered a significant omission to the proper planning of this DCO project.

ECC retains the strongly held view that that more comprehensive and cohesive evidence is required to show that an offshore link or links is not a feasible nor a desirable alternative. ECC remains unconvinced that the current submission provides an adequate explanation of NG's reasoning for discounting a more extensive offshore solution.

For example, the CPRSSR does not set out in simple understandable terms what an offshore maximum counterfactual scenario might look like, nor indeed goes it go far enough in setting out the rationale as to why this cannot be achieved. Furthermore, it does not take into account the forthcoming Holistic Network Design or the revised Network Options Assessment, which is due to be published at the end of June 2022 and which follows this consultation period. Hence ECC requests that this material is sent out after the end of June 2022, to provide a clear rationale as to whether and if so why is it suggested that the option of a maximum offshore alternative no longer remains as ECC believe that it should for the demonstrable benefits it would include.

Like other Authorities along the route, ECC consider that the scheme as it stands appears to be imposed on the host communities without the appropriate evidence. Which, it is considered, goes against the way DCO's should be properly planned for.

This DCO submission will be considered under the Town and Country Planning Act 2008. The relevant policy framework (which is not the Local Plans) is set out in the National Policy Statements (NPS), specifically EN1- Overarching Energy NPS (2011 and with recent draft) and EN-5 – Energy Transmission and Distribution Networks.

In addition, NG has to comply with the "Holford Rules" which in turn provide the guidelines for the routing of new overhead lines and were originally set out in 1959. These guidelines, intended as a common-sense approach to overhead line route design, were reviewed and updated by the industry in the 1990's. The NPS requires that they should be embodied in developers' proposals for new overhead lines.

Put briefly such rules set out that the following should be applied:

- Avoid altogether, if possible, the major areas of highest amenity value, by careful planning of the general route of the line in the first place, even if total mileage is somewhat increased in consequence
- Avoid smaller areas of high amenity value or scientific interest by deviation, provided this can be done without using too many angle towers, i.e., the bigger structures which are used when lines change direction other things being equal, choose the most direct line, with no sharp changes of direction and thus with fewer angle towers
- Choose tree and hill backgrounds in preference to sky backgrounds wherever possible. When a line has to cross a ridge, secure this opaque background as long as possible, cross obliquely when a dip in the ridge provides an opportunity. Where it does not, cross directly, preferably between belts of trees
- Prefer moderately open valleys with medium or moderate levels of tree cover where the apparent height of towers will be reduced, and views of the line will be broken by trees
- Where country is flat and sparsely planted, and unless specifically preferred otherwise by relevant stakeholders, keep the high voltage lines as far as possible independent of smaller lines, converging routes, distribution poles and other masts, wires and cables, so as to avoid a concentration of lines or 'wirescape'
- Approach urban areas through industrial zones, where they exist; and when pleasant residential and recreational land intervenes between the approach line and the substation, carefully assess the comparative costs of undergrounding.

When the current scheme is considered against the above it is questionable if the current as proposed route meets the above in totality. It is acknowledged that some areas of high amenity value are avoided with some mitigation being proposed, particularly in the areas immediately within the Stour Valley AONB. Nevertheless, the entire route is of such value with the landscape being open, heavily populated, and hugely sensitive to change that EAG's lasting impact will be seriously detrimental to the Essex countryside.



ECC wishes to comment on the route as submitted in the non-statutory consultation. However, the comments which follow are predicated by the fact that ECC reserve the right to make any additional comments as it sees fit and relevant to the scheme as it develops.

ECC will continue to work in partnership with affected Authorities in Essex, Suffolk and Norfolk and its partners Place Services as the DCO develops.

ECC recognises the recent growth of large-scale energy developments within the region and invite National Grid to enter into a much closer dialogue with ECC, other affected councils and relevant parties to discuss coordination of project delivery as well as the exploration of opportunities for the sharing of assets / infrastructure so as to minimise the physical impacts of growth on the communities.

ECC notes the government's intention to consult on the delivery of community benefits from energy developments and encourage National Grid to engage with officers to provide a proactive position in respect of community benefits.

It is recognised that the as proposed link will be undergrounded where adopted National Policy indicates it should be, these being specifically within the area in Essex shown as the Dedham Vale and Stour Valley Area of Outstanding Natural Beauty (AONB). This makes up the first part of the Essex link where it enters Braintree before returning overground close to the Tendring border.

However, there is considerable concern with the route taking the path as shown on the proposals at this time. Taking the route overground in this location will result in a sealing end compound, then overhead lines down to a substation close to the Lawford substation, before returning north on another cable array to enter Colchester. This effectively means this link will see a proliferation of overhead lines which will provide a seriously detrimental visual impact and feeling of enclosure to the adjacent communities, effectively from Ardleigh to the Lawford substation. The landscape here is flat and open dominated by agriculture and interspersed with settlement and properties; a proliferation of overhead lines here is considered completely unacceptable.

ECC fully supports the comments as made in consultation by the Dedham Vale AONB Project Board and Suffolk County Council in asking for undergrounding of the lines as they leave Suffolk and the AONB and approach the Lawford substation because of the potential impact upon the Dedham Vale AONB and the local residents close to the proposed substations in Lawford and Ardleigh who would be effectively "boxed in" by lines travelling both to and from Lawford substation.

In addition, it is considered necessary to underground the lines as they leave Lawford substation in their return towards Colchester and the A12 because of the potential impact otherwise on the Dedham Vale AONB and the residents close to the proposed substations who would again be "boxed in" by overhead lines travelling both to and from Lawford substation. Such comments are consistent with the response by Suffolk CC and the Dedham Vale AONB Project Board, and would also remove any potential conflict to the flying activities at the nearby historic Boxted airfield

The route is then taken to the north, and enters Colchester at a restricted pinch point to the north of Ardleigh where the Dedham Road meets Fen Lane, before turning east to meet the A12 north of Colchester. Here the chosen corridor is very narrow. This will severely restrict the ability of the proposal to be adequately screened and its impact mitigated against causing an overbearing feeling of enclosure within this area. ECC consider that this this apparent proliferation of doubling up of overhead lines and the sharp changes of direction as proposed do not comply with the Holford Rules.

It is not understood why the NSIP route needs to be taken into Tendring. Whilst it is acknowledged that this is to potentially pick up the connection point from the current as proposed North Fall and Five Estuaries Wind Farms, which are live NSIPs, why does this connection point, which will reach Lawford by means of an underground link, have to be here? Moving this to the west towards north Colchester would negate the need for this link, effectively removing its impact and potentially reduce costs.

If this cannot be achieved then ECC remain of the view that due to the impact of the development in this area the entire link from the Stour Valley AONB, to Lawford, then back out around Ardleigh to Colchester should be placed undergrounded in its entirety. National Grid have an obligation as set out in the current Overarching National Policy Statement for Energy (EN-1) as well as the emerging Draft to look to conserve landscapes and local communities where the impact of overhead lines is acute, and this is considered wholly relevant in this location and applicable to this part of the route.

If it is that this line comes forward ECC, support the conclusions made by Suffolk County Council in removing the line which crosses Dedham Vale in the AONB as this would be superfluous to need if EAG progresses, and the impacts on removing this from Dedham would be significant in respect of landscape and heritage impacts.

The route corridor contains a number of particular constraints including, but not limited to the following:

- Where the route crosses the A127 it passes over the allocated mixed use new settlement which is an important growth site in the recently adopted Brentwood Local Plan This new settlement is entitled Dunton Hills Garden Village which has an allocated Garden Community for over 4,000 homes, jobs and schools etc and is a key quality development supporting the delivery of housing growth.
- Where the route passes over the A129 (between Woodland School and The Meskin Hutton) this is an area that locally is considered to be of high if not equivalent to an Area of Outstanding Natural Beauty and forms the only green break/wedge in between what is a continuous strip of housing.
- The current proposed route is close to a high number of historic buildings, including but not limited to Margaretting Hall Fryerning Hall and Ingatestone Hall amongst others creating a high degree of visual impact and intrusion and loss of amenity and important historical setting in an otherwise tranquil rural area.

- The route corridor shows close proximity to Broomfield Hospital which includes an air ambulance facility and safe landing could be impeded by nearby pylons.
- Close to the preferred route are the Anglo-European Secondary School, Ingatestone, Fryerning Infant and Junior Schools and Woodland School in Hutton.
- To the north of Chelmsford, the route corridor stands very close to former landfill sites.
- The route crosses through an area in Braintree which has been identified as a Climate Action Zone by the Independent Essex Climate Action Commission. The route also crosses the preferred proposed new route of a dual A120 known as route D. It should also be noted that a proposal for a 35m incinerator chimney at Rivenhall Airfield here was rejected by Essex County Council on grounds of landscape impact. These proposals are for a series of 50m pylons, and therefore the likely significant landscape impact is clear to see. The Council would therefore expect that the impact of the proposed transmission route be carefully considered in light of other existing and proposed developments in the vicinity of it as its cumulative impact and not in isolation.
- The impact the route would have on the character of the Essex Landscape including the Dedham Vale and Stour Valley AONB, the Can and Wid river valleys, the Heybridge Wooded Farmland Plateau, and the Upper Chelmer Valley, amongst others.
- Its unproven and awkward coalescence with the major infrastructure network including national rail and the strategic road network.

What follows in the following Appendixes are the comments as received covering a wide range of our statutory functions.

If you require further information or clarification on any points raised in this response please contact the case officer, their details are set out below.

Yours Sincerely,

*Graham Thomas.*

Graham Thomas  
Head of Planning and Sustainable Development

Enquiries to: Mark Woodger  
Principal Planner, Growth and Development

## Appendix One

### **Community benefits**

ECC notes the government's intention to consult on the delivery of community benefits from energy developments and encourage National Grid to engage with officers to provide a proactive position in respect of community benefits.

ECC believe that the impacts and disturbance placed on local communities by the construction and operation of onshore transmission networks cannot be adequately dealt with through the planning system and it is necessary for National Grid to provide a voluntary Community Benefit Contribution (CBC) package to host local communities. The CBC package would recognise the role of local communities that are being asked to host nationally significant infrastructure projects that will contribute significantly to the government's commitment to Net Zero and energy security.

ECC would welcome the opportunity to work with National Grid to establish a CBC package, which:

- Provides a clear and transparent framework which formally commits to the concept of a CBC package as part of the East Anglia Green project.
- Addresses the inherent inconsistency between renewable and low carbon energy generation with onshore transmission network projects for host communities.
- Reflects the overall scale, nature and national significance of the East Anglia Green project and the particular local needs and circumstances of the host communities.
- Provides short and long-term benefits to host communities, reflecting the longevity of onshore transmission networks.

ECC will look to, and work with the National Grid to set up and the NG to financially support an Environmental Improvement Fund to be used on local initiatives, such as the provision of community woodlands, tree and hedgerow planting, the establishment of traditional orchards and the enhancement of wildlife habitats. Community groups, parish councils and voluntary sector organisations would be encouraged to make applications to this fund. ECC would welcome further discussions to explore opportunities to secure benefits for the host communities arising from the development.

ECC considers that, notwithstanding embedded mitigation and potential modifications to the scheme as proposed above, it is unavoidable for the development to result in serious and lasting negative residual impacts on the community and locality, including on amenity, loss/reduced quality of recreational opportunity for the community, tourism, culture and heritage, and health and wellbeing. ECC expects appropriate and robust mitigation for such residual impacts, which could be, for example, include but not be limited to, funding for alternative outdoor recreational offers, access and amenity improvements, green space, cultural and heritage enhancements.

## **Health and Wellbeing**

ECC is working in close partnership with the NHS, CCG and the Blue Light Emergency Services on all NSIPs and therefore supports the comments as are made by the same on this consultation.

ECC consider it necessary that the EAG project includes the submission of a detailed Construction Management Plan (CMP) to mitigate and compensate against any as proposed construction impact on health and wellbeing. The CMP should have regard to BS 5228:2009 Code of Practice of Noise and Vibration Control on Construction and Open Sites.

It is necessary that an appropriate noise assessment to be undertaken, will need to address the construction phases of the proposal and the operational noise. Methodology of the aforementioned assessment shall be to be agreed once specific details of the proposal are known. A lighting assessment will also be necessary.

A site-specific risk assessment will be required which should include calculations of the maximum possible levels of non-ionizing radiation at the nearest residential properties at various floor levels. The values obtained shall then be compared to the current guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) limits for exposure to electromagnetic radiation. The levels quoted shall be during operation at maximum capacity/power. A valid ICNIRP certificate must also be submitted.

It is considered that overhead power lines do give potential to raise electric and magnetic fields which fall off with distance. Burying power lines underground effectively shields the electric fields but less so the magnetic and it is the latter that have given rise to most health issues which are a major concern for the multitude of residents and communities that are affected by these proposals. There are good aesthetic and practical reasons for replacing overhead power lines by underground ones. However undergrounding power lines in response to health concerns could be considered a precautionary measure.

Appropriate studies need to be presented and evidenced on the impacts of electromagnetic fields above certain levels and biological effects, adult and childhood illness.

## **Climate Change**

ECC acknowledges that there is demand for renewable energy generation and recognises the legal obligation to achieve net zero emissions by 2050. In addition, it acknowledges the Government's stated position that the UK's economic recovery from the COVID-19 pandemic should prioritise the delivery of low carbon projects.

ECC is committed to taking action on climate change and as part of this supports proposals that seek to increase the amount of renewable energy generated in Essex and reduce carbon emissions from the electricity grid subject to other planning considerations such as landscape and visual impact and impact on local communities provided there are no significant adverse environmental impacts that cannot be managed and/or mitigated.

ECC welcomes National Grid's Future Energy Scenarios and highlighting key critical areas of improvement within the existing electricity infrastructure, to ensure a smooth transition to a low carbon and net zero future. As mentioned in the East Anglia Green project document handbook, the east of England will be a prime location and crucial for meeting Government's targets for net zero.

Firstly, it is important to note since the publication of the document, Government have published "The Energy Security Strategy". This has included updates to several key targets, perhaps the most critical one relating to this work, is 50 GW of offshore wind by 2030. With this new target in mind, reconsideration must be given to its impact on these proposals, with potential new capacity being added to the East of England, and how it affects the feasibility of all the options considered within the proposals.

Secondly, it is noted that there will be significant onshore reinforcement of approximately 60km of overhead transmission lines between Norwich main and Bramford and 120 km of overhead transmissions lines between Bramford and Tilbury, via the Tendring peninsula. The project as proposed will utilise overhead steel lattice pylons. With steel manufacture being incredibly carbon intensive, questions must be raised about the overall carbon impact of this project including embodied carbon. It must be made clear how National Grid will account, report, and mitigate the emissions brought about by delivery of this project in whole life terms, both operational and embodied carbon. Furthermore, further detail must be provided that takes account of scope 1, 2 and 3 carbon emissions for the project.

Additionally, work carried out on this scale, across the existing network infrastructure in Essex, will likely cause some disruption. Further detail is needed on how this may affect the transmission and distribution grid in terms of renewable energy additionality in the short term, especially given the recommendations set out by the Essex Climate Action Commission, with significant carbon reductions being modelled for 2030 and beyond. Moreover, with current energy markets being exceptionally volatile, renewable energy can provide robust resilience to customers affected by market forces. Thus, it has been noted that the indicative timeline for delivery and completion of this project will be in 2031, is there a way to accelerate this timeline, in view of the above goals and drivers, should consent be given.

We note that National Grid are running an innovation project in conjunction with SSE, on harnessing waste energy from transformers. It is stated that this has the potential to save millions of tonnes of carbon dioxide emissions. Will this innovative technology be available for the new substations planned for as part of the EAG project? There are several projects regarding upgrading the grid infrastructure, at various stages in the planning process in this region, submitted by National Grid. What synergy will exist between them, in terms of learning and delivery to ensure that these projects are completed in an efficient, environmentally friendly manner.

For the proposal A Whole Life Carbon (WLC) assessment should be carried out, and mitigation measures to reduce the emissions put forward and evaluated. A WLC assessment would cover both operational and embodied carbon emissions which are described below:

- Operational emissions – for example this would include the emissions from the maintenance practices and vehicles used, and a mitigation measure which would help tackle this would be a proportion (or all) of vehicle movements to be electric.

- Embodied emissions – this would include the materials used in the construction process, and the transportation used in the construction process as an example. Mitigation measures that could be explored would review the materials used to see if there were alternatives that have a lower carbon intensity, and also evaluate where the materials come from in order to minimise the distance travelled and by what method of transport is used for example. There is a growing body of guidance for assessing embodied emissions which could be adapted to this project, the following link being one <https://www.oneclicklca.com/> which provides a number of tools through varying levels of detail.

Residual emissions caused as a result of the project should be properly mitigated. In doing so priority should be given to reducing emissions at source, but the residual emissions should then be offset by delivering local carbon offsetting projects. In doing so full range of options should be looked at, for example local retrofitting programmes, new renewable energy installations, significant tree-planting and habitat creation measures. If such green/blue infrastructure projects were used, these should be in addition to the measures required to mitigate any biodiversity and other GI impacts, and as mentioned in the following section.

The opportunity to deliver other climate-related co-benefits of the project should be explored in order to make best use of the infrastructure being put in place. For example, educational benefits could be delivered in terms of education information boards at suitable locations, and school workshops etc, explaining the role of the project in delivering a decarbonised national grid, UK energy security, strategy and tackling climate change

### **Green Infrastructure (GI)**

Whilst there are no statutory requirements for GI, Government's 25 Year Environment Plan and Environment Act (2021) place significant importance on protecting and enhancing GI, accessibility, and biodiversity net gain.

Having reviewed the and the associated documents which accompanied the planning application, ECC raise the following points.

### **Biodiversity Net-Gain**

At present, the Environment Act identifies a minimum 10% gain required in biodiversity. The Environment Bill received Royal Assent on 9 November 2021, meaning it is now an Act of Parliament. At present mandatory biodiversity net gain is likely to become law in Winter 2023 including the following key components:

- *Minimum 10% gain required calculated using Biodiversity Metric and approval of net gain plan*
- *Habitat secured for at least 30 years via obligations/ conservation covenant*
- *Habitat can be delivered on-site, off-site or via statutory biodiversity credits*
- *There will be a national register for net gain delivery sites*
- *The mitigation hierarchy still applies of avoidance, mitigation and compensation for biodiversity loss*
- *Will also apply to Nationally Significant Infrastructure Projects (NSIPs)*
- *Does not apply to marine development*

- *Does not change existing legal environmental and wildlife protections*

The following guidance has already been produced to assist the calculation and delivery of biodiversity net gain:

- an updated [Biodiversity Metric 3.1](#) was published in April 2022.
- CIEEM, IEMA and CIRIA have set out [Good Practice Principles for Development](#) and an associated [Practical Guide](#) and [Case Studies](#).
- a British Standard on biodiversity net gain and development projects: [BS 8683:2021 Process for designing and implementing Biodiversity Net Gain](#)

ECC will look to ensure this proposal delivers a minimum of 10% Biodiversity Net-Gain (BNG) in line with the Environment Act. GI features located within the preferred option corridors ought to be protected and retained, where possible, to support the delivery of BNG. However, it is recognised that this might not always be conceivable, and off-site BNG delivery can provide additional benefits and be used to protect areas of land that are of local natural and wildlife value.

### Existing Landscape Assets

ECC expects this proposal, where possible, to protect and retain green and blue infrastructure features. Moving forward, we recommend a GI Audit is completed to outline and access the existing site GI within the preferred option corridors. Any existing GI needs to be incorporated as a part of the route design wherever possible, with strongly worded commitments made for the retention of these features. Where the removal of high value GI is unavoidable, a suitable location will need to be identified for the GI to be replaced to an equal or enhanced standard.

### Ancient Woodland

The preferred option corridor includes multiple patches of ancient woodland of varying sizes. Paragraph 5.4.13 of the Overarching National Policy Statement for Energy (EN-1) states that *“the secretary of state should not grant development consent for any development that would result in its loss or deterioration unless the benefits (including need) of the development, in that location clearly outweigh the loss of the woodland habitat”*. ECC recommends that the EAG proposal refers to the appropriate landscape buffers, and that the preferred option corridor is designed and planned to avoid detrimental direct and indirect impacts. This includes, the risk of water-borne pollution, air pollution, dust deposit, change to local hydrology, increased recreational pressure and informal access points and soil compaction.

### Local Wildlife Sites

No reference is made to Local Wildlife Sites (LWSs) in the documentation provided. LWSs are wildlife-rich sites selected for their local nature conservation value and can contain important, distinctive, and threatened habitats and species. Moving forward, the proposal should seek to minimise the impact on these sites.

### GI Strategy



Moving forward, ECC would ask for the production of a Green Infrastructure Strategy for the route, based on the Essex Green Infrastructure Strategy (2020) and Emerging GI Standards to provide a more detailed an assessment of the ecological context of the development. The scheme should include but not be limited to:

- The design of the development to deliver Biodiversity Net Gain and wider environmental net gain. This that forms an important component of nature recovery networks and the wider landscape scale GI network.
- A Green Infrastructure Plan outline the implementation of green infrastructure across the proposed preferred option corridor, the timescale for the implementation of each aspect and, the details of the quality standard of construction, management and maintenance that will occur.

### Essex GI Strategy and Standards

Consideration should be given to the use of the [Essex Green Infrastructure Strategy \(2020\)](#) and emerging [Essex Green Infrastructure Standards](#) in securing multifunctional green infrastructure. ECC is also establishing a Local Nature Partnership (LNP) covering Greater Essex along with a Local Nature Recovery Strategy. The works of this group should be supported and acknowledge moving forward.

### **Minerals and Waste**

The 'application site' forms the basis for the minerals and waste safeguarding assessment set out below.

This response deals with mineral policy matters and waste policy matters in turn. A spatial representation of the application site and the matters discussed can be found in Appendix Two. A list of relevant designations and specific facilities which would potentially be affected are listed, with their most recent planning application reference where relevant, in Appendix Three. There then follows comments relating to the East Anglia Green Energy Enablement Corridor and Preliminary Routeing and Siting Study Report, 2022.

### **Mineral Matters**

#### **Safeguarding Mineral Resources**

A significant proportion of the proposals are located across land which is designated as a Mineral Safeguarding Area (MSA) and therefore the application is subject to Policy S8 of the Essex Minerals Local Plan 2014 (MLP). The MLP can be viewed on the County Council's website via the following link:

<https://www.essex.gov.uk/minerals-waste-planning-policy/minerals-local-plan>

Policy S8 of the MLP requires that a non-mineral proposal located within an MSA which exceeds defined thresholds must be supported by a Minerals Resource Assessment to establish the existence, or otherwise, of a mineral resource capable of having economic

importance. This will ascertain whether there is an opportunity for the prior extraction of that mineral to avoid the sterilisation of the resource, as required by the National Planning Policy Framework (Paragraph 210). The NPPF requires policies that encourage the prior extraction of mineral where it is practical and environmentally feasible.

The area of land associated with the proposed development that lies within an MSA for sand and gravel exceeds the 5ha threshold upon which local resource safeguarding provisions are applied for this mineral. Part of the application site also falls within a MSA for brick clay and exceeds the threshold of one dwelling for this mineral. These thresholds are defined in Policy S8 of the MLP. Policy S8 of the MLP therefore applies, and this states “... *Proposals which would unnecessarily sterilise mineral resources or conflict with the effective workings of permitted minerals development or Preferred Mineral site allocation shall be opposed.*”

**Therefore, a Minerals Resource Assessment (MRA) is required as part of a planning application** to establish the practicality and environmental feasibility of the prior extraction of mineral such that the resource is not sterilised where this can be avoided. If found to be practical and environmentally feasible, prior extraction is expected to take place ahead of sterilisation by non-mineral development.

The relationship between the sand and gravel MSA and the application site is shown in Appendix Two.

The scope and level of detail of a Minerals Resource Assessment will be influenced by the specific characteristics of the site’s location, its geology, and the nature of the development being applied for. However, a number of key requirements can be identified which are likely to satisfy the MWPA that the practicality and environmental feasibility of prior extraction have been suitably assessed in the MRA. The detail to be provided should be in proportion to the nature of the proposed application. The MWPA welcomes early engagement to clarify the requirements of MRA.

Minerals Impact Components	Infrastructure Assessment	Information requirements & sources
Site location, boundaries and area		Application site area in relation to safeguarded site(s), Description of proposed development, Timescale for proposed development,
Description of infrastructure potentially affected		Type of safeguarded facility e.g. wharf, rail depot, concrete batching plant; asphalt plant; recycled aggregate site, Type of material handled/processed/supplied, Throughput/capacity.
Potential sensitivity of proposed development as a result of the operation of existing or allocated		Distance of the development from the safeguarded site at its closest point, to include the safeguarded facility and any access routes,

safeguarded infrastructure (with and without mitigation)	The presence of any existing buildings or other features which naturally screen the proposed development from the safeguarded facility, Evidence addressing the ability of vehicle traffic to access, operate within and vacate the safeguarded development in line with extant planning permission, Impacts on the proposed development in relation to: <ul style="list-style-type: none"> <li>• Noise</li> <li>• Dust</li> <li>• Odour</li> <li>• Traffic</li> <li>• Visual</li> <li>• Light</li> </ul>
Potential impact of proposed development on the effective working of the safeguarded infrastructure/allocation	Loss of capacity – none, partial or total, Potential constraint on operation of facility – none or partial.
Mitigation measures to be included by the proposed development to reduce impact from existing or allocated safeguarded infrastructure	External and internal design & orientation e.g. landscaping; living & sleeping areas facing away from facility, Fabric and features e.g. acoustic screening & insulation; non-opening windows; active ventilation.
Conclusions	How the MIIA informed the final layout of the proposed development. Potential sensitivity of proposed development to effects of operation of the safeguarded infrastructure/facility and how these can be mitigated satisfactorily; or If loss of site or capacity, or constraint on operation, evidence it is not required or can be re-located or provided elsewhere.

An MRA is expected to be evidence based and informed by quantified information.

To ensure that a comprehensive assessment of the mineral resource at risk of sterilisation is undertaken, it is recommended that:

- Any questions regarding the scope of an MRA are discussed with the MWPA as early as possible.
- A draft borehole location plan is agreed prior to commencement, and preferably as part of pre-application.
- The borehole depths should be sufficient to prove the depth of the safeguarded deposit.
- Borehole analysis must note the depth of the water table.

- A non-stratified sampling technique is applied. An initial spacing of approximately 100m-150m centre to centre should be considered, with additional locations if required to determine the extent of deposits on site; and
- The MRA provides documented evidence confirming any commercial interest in working the resource at risk of sterilisation based on its quality, quantity, and viability of prior extraction.

The MRA should be prepared using the [Pan-European Standard for Reporting of Exploration Results, Mineral Resources and Reserves \(PERC\) Standard](#), which was revised and published on 23 May 2013.

Any application, through a MRA or otherwise, is required to be submitted with sufficient information such that the issues raised through Policy S8 of the MLP can be appropriately considered.

### **Safeguarding Mineral Infrastructure**

The application site passes through a number of Mineral Consultation Areas as shown in Appendix Two and listed in Appendix Three. With regard to Mineral Consultation Areas, Policy S8 of the MLP seeks to ensure that existing and allocated mineral sites and infrastructure are protected from inappropriate neighbouring developments that may prejudice their continuing efficient operation or ability to carry out their allocated function in the future. Policy S8 of the MLP defines Mineral Consultation Areas as extending up to 250m from the boundary of an infrastructure site or allocation for the same.

Paragraph 187 of the NPPF states that “Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.”

**Due to the proposed project passing through Mineral Consultation Areas, a Mineral Infrastructure Impact Assessment (MIIA) is required as part of a planning application.** The MWPA has designed a generic schedule of information requirements that should be addressed as relevant through an MIIA. The detail to be provided should be in proportion to the nature of the proposed application.

### **Mineral Infrastructure Impact Assessment Components**

<b>Waste Infrastructure Assessment Components</b>	<b>Information requirements &amp; sources</b>
Site location, boundaries and area	<ul style="list-style-type: none"> <li>• Application site area in relation to safeguarded site(s)</li> <li>• Description of proposed development</li> <li>• Timescale for proposed development</li> </ul>

Description of infrastructure potentially affected	<ul style="list-style-type: none"> <li>• Nature of relevant safeguarded facility</li> <li>• Type of material handled/processed/supplied</li> <li>• Throughput/capacity</li> </ul>
Potential sensitivity of proposed development as a result of the operation of existing or allocated safeguarded infrastructure	<ul style="list-style-type: none"> <li>• Distance of the development from the safeguarded site at its closest point, to include the safeguarded facility and any access routes.</li> <li>• The presence of any existing buildings or other features which naturally screen the proposed development from the safeguarded facility</li> <li>• Evidence addressing the ability of vehicle traffic to access, operate within and vacate the safeguarded development in line with extant planning permission.</li> <li>• Impacts on the proposed development in relation to: <ul style="list-style-type: none"> <li>○ Noise</li> <li>○ Dust</li> <li>○ Odour</li> <li>○ Traffic</li> <li>○ Visual</li> <li>○ Light</li> </ul> </li> </ul>
Potential impact of proposed development on safeguarded infrastructure/ allocation	<ul style="list-style-type: none"> <li>• Loss of capacity – none, partial or total</li> <li>• Potential constraint on operation of facility – none, partial or full</li> </ul>
Measures to mitigate potential impacts of operation of infrastructure on proposed development	<ul style="list-style-type: none"> <li>• External and internal design &amp; orientation eg landscaping; living &amp; sleeping areas facing away from facility.</li> <li>• Fabric and features e.g. acoustic screening &amp; insulation; non-opening windows; active ventilation</li> </ul>
Conclusions	<ul style="list-style-type: none"> <li>• Sensitivity of proposed development to effects of operation of safeguarded infrastructure/facility can be mitigated satisfactorily; or</li> <li>• If loss of site or capacity, or constraint on operation, evidence it is not required or can be re-located or provided elsewhere</li> </ul>

A MIIA is expected to be evidence based and informed by quantified information. It is recognised that the requirements of an MIIA may be addressed through other evidence base documents, such as those addressing transport, odour and noise issues. In these instances, it would be acceptable for the MIIA to signpost to the relevant section of complementary evidence supporting the planning application. The MWPA welcomes early engagement to clarify the requirements of MIIA.

## **Waste Matters**

### **Safeguarding Waste Infrastructure**

The application site passes through a number of Waste Consultation Areas as shown in Appendix Two. Its location within these Waste Consultation Areas means that an application would be subject to Policy 2 of the Essex and Southend-on-Sea Waste Local Plan 2017 (WLP). The WLP can be viewed on the County Council's website via the following link:

<https://www.essex.gov.uk/minerals-waste-planning-policy/waste-local-plan>

Policy 2 of the WLP seeks to ensure that existing and allocated waste sites and infrastructure are protected from inappropriate neighbouring developments that may prejudice their continuing efficient operation or ability to carry out their allocated function in the future. Policy 2 defines Waste Consultation Areas as extending up to 250m from the boundary of existing or allocated waste infrastructure, unless they are Water Recycling Centres, where the distance increases to 400m.

**Due to the proposed project passing through a Waste Consultation Area, a Waste Infrastructure Impact Assessment (WIIA) is required as part of a planning application.** In order to satisfy the provisions of Policy 2, the MWPA has designed a generic schedule of information requirements that should be addressed as relevant within the supporting evidence of any application which falls within a Waste Consultation Area. The detail to be provided should be in proportion to the nature of the proposed application.

### Waste Infrastructure Assessment Components

Waste Infrastructure Assessment Components	Information requirements & sources
Site location, boundaries and area	<ul style="list-style-type: none"> <li>• Application site area in relation to safeguarded site(s)</li> <li>• Description of proposed development</li> <li>• Timescale for proposed development</li> </ul>
Description of infrastructure potentially affected	<ul style="list-style-type: none"> <li>• Nature of relevant safeguarded facility</li> <li>• Type of material handled/processed/supplied</li> <li>• Throughput/capacity</li> </ul>
Potential sensitivity of proposed development as a result of the operation of existing or allocated safeguarded infrastructure	<ul style="list-style-type: none"> <li>• Distance of the development from the safeguarded site at its closest point, to include the safeguarded facility and any access routes.</li> <li>• The presence of any existing buildings or other features which naturally screen the proposed development from the safeguarded facility</li> <li>• Evidence addressing the ability of vehicle traffic to access, operate within and vacate the safeguarded development in line with extant planning permission.</li> </ul>

	<ul style="list-style-type: none"> <li>• Impacts on the proposed development in relation to: <ul style="list-style-type: none"> <li>○ Noise</li> <li>○ Dust</li> <li>○ Odour</li> <li>○ Traffic</li> <li>○ Visual</li> <li>○ Light</li> </ul> </li> </ul>
Potential impact of proposed development on safeguarded infrastructure/ allocation	<ul style="list-style-type: none"> <li>• Loss of capacity – none, partial or total</li> <li>• Potential constraint on operation of facility – none, partial or full</li> </ul>
Measures to mitigate potential impacts of operation of infrastructure on proposed development	<ul style="list-style-type: none"> <li>• External and internal design &amp; orientation eg landscaping; living &amp; sleeping areas facing away from facility.</li> <li>• Fabric and features eg acoustic screening &amp; insulation; non-opening windows; active ventilation</li> </ul>
Conclusions	<ul style="list-style-type: none"> <li>• Sensitivity of proposed development to effects of operation of safeguarded infrastructure/facility can be mitigated satisfactorily; or</li> <li>• If loss of site or capacity, or constraint on operation, evidence it is not required or can be re-located or provided elsewhere</li> </ul>

A WIIA is expected to be evidence based and informed by quantified information. It is recognised that the requirements of a WIIA may be addressed through other evidence base documents, such as those addressing transport, odour and noise issues. In these instances, it would be acceptable for the WIIA to signpost to the relevant section of complementary evidence supporting the planning application. The MWPA welcomes early engagement to clarify the requirements of WIIA.

### **Site Waste Management Plan**

Paragraph 8 of the NPPF recognises the importance of “using natural resources prudently and minimising waste” to ensure the protection and enhancement of the natural environment and to achieve sustainable development. It also reiterates the need to mitigate and adapt to climate change and move towards a low carbon economy. An efficient and effective circular economy is important to achieving these objectives.

Policy S4 of the Minerals Local Plan (2014) advocates reducing the use of mineral resources through reusing and recycling minerals generated as a result of development/ redevelopment. Not only does this reduce the need for mineral extraction, it also reduces the amount sent to landfill. Clause 4 specifically requires “The maximum possible recovery of minerals from construction, demolition and excavation wastes produced at development or redevelopment sites. This will be promoted by on-site re-use/ recycling, or if not

environmentally acceptable to do so, through re-use/ recycling at other nearby aggregate recycling facilities in proximity to the site.”

It is vitally important that the best use is made of available resources. This is clearly set out in the NPPF and relevant development plan documents. We would therefore recommend that, in lieu of these issues being addressed prior to a decision, conditions are attached to require the applicant to prepare an appropriately detailed waste management strategy through a Site Waste Management Plan.

A SWMP would be expected to:

- Present a site wide approach to address the key issues associated with sustainable management of waste, throughout the stages of site clearance, design, construction and operation,
- Establish strategic forecasts in relation to expected waste arisings for construction,
- Include waste reduction/recycling/diversion targets, and monitor against these,
- Advise on how materials are to be managed efficiently and disposed of legally during the construction phase of development, including their segregation and the identification of available capacity across an appropriate study area.

### **East Anglia Green Energy Enablement Corridor and Preliminary Routeing and Siting Study Report, 2022**

ECC is pleased to note that the EAG Enablement Corridor and Preliminary Routeing and Siting Study Report, 2022 (PRSS) through its appendices recognises the role of the Essex Minerals Local Plan 2014 and the fact that the proposed development has implications for the safeguarding of mineral resources and mineral development. It is noted that the PRSS further recognises that the proposed development has implications for the safeguarding of waste development although it is noted that there is no reference to the Essex and Southend-on-Sea Waste Local Plan 2017. This is an omission and references should be added to this document where relevant.

With respect to the safeguarding of mineral resources, the PRSS states, with respect to the Bramford to EAC Options Selection at Paragraph 5.5.20, that *‘the corridors all pass through areas either allocated for minerals extraction or waste sites. As these county designations (Supplementary Note 3) are common they are not considered to be a differentiator in the selection of a preferred corridor.’* This is questioned to the extent that where routes would have less impact on safeguarded mineral resources or infrastructure, then this should be carried through into relevant assessments. This is particularly the case when potential impacts on existing, permitted or allocated minerals and/ or waste infrastructure are being assessed as the contribution these facilities make to the strategic issues of minerals supply and waste management form part of a County’s long-term strategy with regards to these issues. It is also clarified that although these county designations may be ‘common’, that this does not obviate the need to comply with relevant minerals and waste policy.

The Appendices associated with the PRSS go into more detail with regards to individual sections of the proposed route. The assessments of individual sections of the route



contain both generalised and bespoke statements with regards to minerals and waste safeguarding as considered appropriate for the context of each section.

With regard to safeguarded mineral resources, it is often stated in the report something similar to *'Much of the section would fall within areas of minerals safeguarding (sand and gravel) under the Essex Minerals Local Plan (for the areas of the section falling within (X) and (Y)...'* *Safeguarding ensures protection of mineral resources from risk of sterilisation as the result of development.'* The PRSS is however largely silent on the implications of this within Essex, which is set out in Section 'Mineral Matters – Safeguarding Mineral Resources' above. As also set out above, The MWPA would welcome the opportunity to discuss the scope of an MRA.

The PRSS further states that *'It is not considered that siting of pylons would cause significant sterilisation of any mineral resources due to the small pylon footprint, however, careful routeing and siting, and consultation with the relevant minerals planning authorities should help to avoid significant effects.'* The rationale behind this conclusion should be set out in an MRA as part of a future planning application such that this conclusion and any consultation with the MWPA on this matter is appropriately documented.

As shown in Appendix Two and Appendix Three, the proposed development falls within a number of MCAs and/ or WCAs. As set out under Mineral Matters – Safeguarding Mineral Infrastructure and Waste Matters – Safeguarding Waste Infrastructure, this triggers the need for a MIIA and/ or WIIA to be carried out based on the schedules identified above. As also set out above, the MWPA would welcome the opportunity to discuss the scope of MIIAs and WIAs.

The PRSS contains a number of bespoke sections recognising where particular sections of the overall route have potential implications for one or more allocated, permitted or active minerals and waste infrastructure. At this stage, the MWPA does not consider that it is proportionate to comment on these individually until the promoters have carried out initial MIIAs and WIAs to inform an assessment of potential impacts. It is noted that the PRSS have scoped in operations at Martells, Wivenhoe, Fingringhoe and Sandon. The MWPA notes that these facilities are all more than 400m away from the proposed route and therefore outside of Mineral Consultation Areas.

## **Archaeology**

**General Comments:** At present the high-level assessment has only considered designated heritage assets without any assessment of the Historic Environment Record data. This information will need to be considered in advance of the final route decision and as part of any proposed application and EIA. The cropmark data held on the HER will be important in assessing the location for the route, and especially the sub-station in Tendring. With the majority of the route proposed as overhead lines careful assessment of the Historic Environment Record should allow much of the known below ground heritage assets to be protected.

The proposed undergrounding section, due to the destructive impact on surviving archaeological deposits, will require advance evaluation prior to submission of the DCO

both in the form of geophysical assessment and trial trenching/bore hole assessment/palaeo-environmental assessment. As this area traverses a highly sensitive landscape which has been largely preserved from the medieval period, there is a high potential for both landscape features and below ground deposits to survive. Similarly, as this bisects the river valley there is a high potential for important palaeo-environmental deposits, as well as waterlogged deposits surviving in the valley.

**Section Specific Comments:**

The following table provides more specific comments by section:

Section	Comment
3.2.8	There is concern that the data retained within the Historic Environment Records has not been used to inform the constraint mapping. Any detailed design will need to include this detail.
3.3.7-8	This section identifies the fact that undergrounding has the potential for impact on archaeological deposits with the associated photos indicating the potential significant impact considering the land-take that is required. Large complex sites of heritage significance are frequently found on undergrounding projects and it is vital that these are identified as part of the initial phase of assessment so that an informed decision can be made by the inspector. An understanding of the significance and complexity of the archaeological deposits is important to have at the time of submission so that a clear and robust mitigation or preservation in situ strategy can be agreed.
5.2.7	Although the large Scheduled Monument is identified at Ardleigh this fails to understand that the important cropmark complex extends much further than the scheduled area and that similar and potentially as important deposits are located within the vicinity of Ardleigh. A similar situation occurs in many areas within the Stour Valley.
5.5.4	There are concerns that the presence of extensive cropmark complexes may not have been taken into consideration for the undergrounding elements.
5.5.4	There is no consideration of below ground archaeological deposits and the destruction and finite nature of the archaeological deposits.

Section	Comment
5.5.16 - 5.5.25	No mention is given of the significance of archaeological deposits destroyed or damaged by the undergrounding work.
5.5.26 and 5.5.27	In both cases the lack of assessment of the archaeological deposits/HER within this area is not identified. The loss of the archaeological deposits in this area will be a permanent impact.
6.5.5	There is no evidence that the consultants have assessed the data within the Historic Environment Record and historic environment impact seems to be restricted to where listed buildings are located.

## **Historic Buildings**

### **General Comments**

Whilst the following Built Heritage Advice relates solely to the proposals which fall within Essex, the scheme should be considered holistically when developing the proposals to ensure a high-quality project which is sympathetic to the historic built environment. The following advice is designed to inform the next steps in developing the proposals including the preparation of an Environmental Impact Assessment (EIA), and statutory consultations.

The EIA should include a Heritage Desk-Based Assessment (DBA), the objective of which is to identify all heritage assets which have the potential to be impacted by the proposals and which should therefore be taken forward for further assessment. A methodology for this should be provided and it is recommended that this is informed by *Historic Environment Good Practice Advice in Planning Note 12: Statements of Heritage Significance* and *Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (Second Edition)*, which provides for a staged approach to proportionate decision-taking as follows:

**Step 1:** Identify which heritage assets and their settings are affected

**Step 2:** Assess the degree to which these settings and views make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated

**Step 3:** Assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it

**Step 4:** Explore ways to maximise enhancement and avoid or minimise harm

**Step 5:** Make and document the decision and monitor outcomes

In identifying which heritage assets and their settings may be affected (Step 1) it is recommended, given the scale and nature of the proposals, that a study area of 5km from the graduated swathe boundary is adopted. All heritage assets within this study area including Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, and non-designated heritage assets should be identified.

The National Planning Policy Framework notes that the extent of a heritage asset's setting is not fixed and may change as the asset and its surroundings evolve. As such, heritage assets that are landmark buildings or buildings located on a higher topography may be situated outside of the study area but still require assessment. Therefore, it is recommended that a Zone of Theoretical Visibility (ZTV) is established. A ZTV overlaid with a Designations Map showing the location of all Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, and non-designated heritage assets would be considered valuable in identifying those heritage assets which should be taken forward for further assessment.

Should it be determined that a heritage asset should be scoped out and not taken forward for further assessment, a clear and convincing justification for this should be provided.

Once all of the identified heritage assets which have the potential to be impacted by the proposals have been identified, the degree to which their settings and views make a contribution to the significance of the heritage assets or allow their significance to be appreciated, should be assessed (Step 2). This should seek to establish a heritage baseline for each asset.

The DBA should seek to demonstrate a sound understanding of historic use/land use and ownership, and identify which farm(s)/field(s) the heritage assets were historically and/or functionally associated with, in order to fully assess the impact of the proposals on the historic, architectural, and associative value of the heritage assets.

Furthermore, the views from and to each heritage asset should be carefully considered. The following would be considered valuable in establishing a heritage baseline:

- A ZTV overlaid with a Designations Map and a Viewpoint Location Plan, naming all Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, and non-designated heritage assets

The methodology for the views and visual representations should be in accordance with the Guidelines for Landscape and Visual Impact Assessment (GLVIA3) and guidance notes provided by the Landscape Institute. It is further recommended that views be undertaken during winter months at a minimum, to reflect and consider the 'worst case scenario.' All viewpoints should be consulted and agreed.

The following publications and advice notes from Historic England are also useful guidance:

- Historic Environment Good Practice Advice in Planning 2: *Managing Significance in Decision-Taking in the Historic Environment*
- Historic Environment Good Practice Advice in Planning Note 3: *The Setting of Heritage Assets – (Second Edition)*
- Historic England Advice Note 7: *Local Heritage Listing – Identifying and Conserving Local Heritage (Second Edition)*
- Historic England Advice Note 10: *Listed Buildings and Curtilage*
- Historic Environment Good Practice Advice in Planning Note 12: *Statements of Heritage Significance*

Any heritage assets which are identified as being potentially impacted by the proposals should be taken forward for further assessment during which the effects of the proposed development, whether beneficial or harmful, on the significance of the heritage asset or on the ability to appreciate it, should be assessed (Step 3).

The third stage of any analysis is to identify the effects a development project may have on settings and to evaluate the resultant degree of harm or benefit to the significance of the heritage assets. Again, the guidance provided in *Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (Second Edition)* should inform the methodology for analysis.

Given the scale and nature of the proposals, it is recommended that the evaluation extend to include an assessment of cumulative impacts which may arise from other large-scale developments or similar schemes. Furthermore, complex impacts arising from the development which may not be solely visual should also be assessed.

Once the extent to which heritage assets are impacted by the proposals, through change within their setting, is fully understood, ways to maximise enhancement and avoid or minimise harm should be explored (Step 4). There may be design amendments which could mitigate any identified harm, and these should be carefully considered.

Should the proposals result in residual 'less than substantial' harm, despite mitigation efforts, then paragraph 202 of the NPPF would be a relevant consideration and the Local Planning Authority is required to make a balanced judgement between the level of harm and the public benefits.

Paragraph 199 should also be considered as this gives great weight to the conservation of heritage assets, as well as the statutory duty of Section 66 and 72 of the Planning (Listed Buildings and Conservation Areas) Act 1990 under which local planning authorities should have special regard to the desirability of preserving the settings of listed buildings and the character and appearance conservation areas.

## **Landscape**

Whilst the following Landscape Advice relates solely to the proposals which fall within the counties of Essex and Suffolk, the scheme should be considered holistically when developing the proposals to ensure a high-quality project which is sympathetic to the natural environment. The following advice is designed to inform the next steps in

developing the proposals including the preparation of an Environmental Impact Assessment (EIA).

### Current route and design

ECC have reviewed the Corridor and Preliminary Routeing and Siting Study Report and appendices as well as the Public Consultation Strategy (all National Grid, April 2022). This provides comments on the North East Anglia connection (Norwich to Bramford) and the South East Anglia connection (Bramford to Tilbury). We also note the references to the Overarching National Policy Statement for Energy – EN1 and EN5, which references landscape and visual factors

We note that the routeing constraints in Tables 3.1 and substation siting constraints only refer to nationally designated sites and residential properties. However, we recommend that locally designated sites and similar e.g. Special Landscape Areas are also included as mapped landscape and visual constraints. It would also be beneficial for valued landscape qualities for landscape character areas to be analysed as these would be particularly useful in ensuring landscapes outside of designations are appropriately reviewed and impacts minimised as far as practicably possible by routeing revisions, design optioneering and mitigation measures.

Para 3.2.10 states that the potential to route parallel in close proximity to existing 400kV overhead lines is a principal opportunity and would restrict the geographic extent of environmental effects associated with such infrastructure. Earlier indications of the proposed power line corridor showed this was the case, however, under the new proposals, a large section of the new overhead lines will be distanced from the existing line, introducing landscape visual impacts in areas where the baseline landscape has not yet been affected by electricity infrastructure. We note that the Holford and Horlock rules have been used as a guide to routeing and siting of new infrastructure, however we would advise further details on the existing constraints are provided to justify the new routeing proposals.

In addition, given the new route alignment, we would recommend alternative designs such as T-Pylons across the Essex region are explored to mitigate the visual impact of transmission infrastructure.

The location of Cable Sealing End (CSE) compounds and proposed substations must not only be carefully considered in terms of impacts on visual amenity and landscape character, but also in regard to the setting of the AONB. The Dedham Vale AONB Position Statement (revised Nov 2016) states that “The setting of the Dedham Vale AONB does not have a geographical border. The location, scale, materials or design of a proposed development or land management activity will determine whether it affects the natural beauty and special qualities of the AONB. A very large development may have an impact even if some considerable distance from the AONB boundary.” and “Adverse impacts might not be visual. The special qualities of the Dedham Vale AONB include tranquillity. A development which is noisy may well impact adversely on tranquillity even if not visible from the AONB.” It is therefore considered that different locations of CSE compounds at

extended distances from the AONB are explored to fully understand impacts on setting and natural beauty.

We also highlight that any undergrounding in visually sensitive areas such as AONBs, may result in increased landscape impacts from trenching and construction of Cable Sealing End (CSE) compounds and we would expect a full audit of the landscape features and habitats on site to be undertaken to inform the alignment and mitigation proposals.

The National Grid's Landscape Enhancement Initiative, which is part of the Visual Impact Provision project, is very much relevant to the AONB area. However, we would advise a similar framework approach is applied to the project as a whole given the evidence available that demonstrates the overall sensitivity of the landscape. Therefore, the extant and rationale for offsite planting and landscape improvement works should align with this initiative.

To help reduce adverse landscape and adverse impacts along the proposed route, we would recommend that strategic opportunities are taken to rationalise and upgrade/remove the existing 132kv lines where possible.

#### Norwich to Bramford – Sections C-E

As noted in Recommendation no.1, other landscapes outside of nationally designated landscapes should be appropriately analysed and the route designed accordingly. The Draft NPS EN-1 (Para 2.11.20) states "The Secretary of State should also have special regard to nationally designated landscapes, where the general presumption in favour of overhead lines should be inverted to favour undergrounding. Away from these protected landscapes, and where there is a high potential for widespread and significant landscape and/or visual impacts, the Secretary of State should also consider whether undergrounding may be appropriate, now on a case-by-case basis, weighing the considerations outlined above."

Therefore, we would advise that a detailed assessment of other valued landscapes such as the Waveney Valley and Gipping Valley are undertaken and in turn National Grid considers additional undergrounding in these areas.

#### Bramford to East Anglia Connection (EAC)

The landscape south of the AONB contributes towards its setting and therefore careful consideration for the route and design need to be taken. We note that the landscape around Lawford and the proposed substation location is an open and exposed plateau with a low density and rural settlement pattern, therefore any changes to the skyline in the form of multiple pylons may have detrimental impacts on both character and visual amenity. Currently the proposed routes to and from the EAC are proposed as overhead pylons, however given the pylons will be seen in combination with each other, the potential impacts could be significant. For this reason, we would recommend National Grid explore options to continue the proposed undergrounding through the AONB, to the EAC.

The landscape response to cumulative impacts at and around the Bramford Sub-station needs to be carefully considered. Currently there is a number of live and upcoming applications in and around the Bramford area of an industrial character, that will have a detrimental impact on the landscape and Bramford as a settlement. Mitigation measures such as the reinforcement of historic field boundaries, restoring and planting hedgerows, as well as increasing the stock of hedgerow trees are important measures to consider on site.

We would expect preliminary consultations on other national grid schemes to be provided at the earliest opportunity to allow us to understand the cumulative impacts and assess whether there are opportunities for cumulative mitigation measures both on and off site.

### Next Steps

The National Planning Statement (NPS) EN-1 Section 5.9 also sets out recommendations and requirements in relation to landscape and visual impact. These are detailed below in *italics*:

*The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England (NPS EN-1 Para 5.9.5).*

In Suffolk, the primary source of information for the landscape baseline is the Suffolk Landscape Character Assessment, which has informed the district level BMSDC Landscape Guidance (2015) and the Managing a Masterpiece LCA.

On this basis it is recommended that the Suffolk LCA provides the overarching framework for the baseline study, with further reference to the BMSDC Guidance and Managing a Masterpiece Study for localised details on local character and cultural heritage within the AONB and the Stour Valley project area.

In Essex, the primary sources of information for the landscape baseline include [but are not limited to]:

- Essex Landscape Character Assessment (Chris Blandford Associates, 2003);
- Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessments (Chris Blandford Associates, 2006);
- Tendring Landscape Character Assessment Volume 1 and 2 (LUC, 2001); and
- Land of the Fanns Landscape Character Assessment (Alison Farmer Associates, 2016)

On this basis it is recommended that the Essex LCA provides the overarching framework for the baseline study, with further reference to the District level assessments. That said, given most of the baseline documents are now over 15 years old, we would recommend



National Grid consider undertaking a review/update of the LCA / Detailed Landscape Characterisation Study to help inform the routeing and design options for the new network, as well as landscape mitigation and enhancement measures.

“The applicant’s assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character” (Para 5.9.6).

GLVIA3 recognises that landscape value is not always signified by designation: ‘the fact that an area of landscape is not designated either nationally or locally does not mean that it does not have any value’ (paragraph 5.26).

In determining landscape value, TGN 02-21 ‘Assessing the Value of Landscapes Outside National Designations’ has recently been published and builds on the details within GLVIA3 and the assessment of value (GLVIA3 Box 5.1).

For instance, Table 1 of the TGN provides a range of factors that can be considered when identifying landscape value. This includes the incorporation of cultural associations (natural heritage and cultural heritage) into consideration of landscape value, which is greatly supported.

*“National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty (Para 5.9)*

*... consideration of such applications should include an assessment of:*

- *the need for the development, including in terms of national considerations, and the impact of consenting or not consenting it upon the local economy;*
- *the cost of, and scope for, developing elsewhere outside the designated area or meeting the need for it in some other way; and*
- *any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.” (Para 5.10)*

It would be expected that the following reference/guidance documents are considered and used as part of any future assessment. This includes:

- Dedham Vale AONB and Stour Valley Management Plan
- Dedham Vale AONB Natural Beauty and Special Qualities and Perceived and Anticipated Risks (July 2016)
- Managing a Masterpiece Evaluation Report (Dec 2013)
- Valued Landscape Assessment Stour Valley Project Area (March 2020)

## **Ecology**

### Current route and design

We have reviewed the Corridor and Preliminary Routeing and Siting Study Report and appendices as well as the Public Consultation Strategy (all National Grid, April 2022). This provides comments on the South East Anglia connection (Bramford to Tilbury) including a new East Anglia Connection substation.

We note that the routeing constraints in Tables 3.1 only refer to statutory designated sites and we strongly recommend that non-statutory designated sites e.g. LoWS are also included as mapped ecological constraints although many are ancient woodland, an irreplaceable habitat. We welcome that the substation siting constraints in Table 3.2 include Priority habitats but again recommend that non-statutory designated sites e.g. LoWS are also included to avoid significant ecological impacts as this could trigger the need to deliver compensatory habitat.

We highlight that any undergrounding in visually sensitive areas such as AONBs, may result in increased ecological impacts from trenching and construction of Cable Sealing End (CSE) compounds and we are willing to be involved in fine tuning the locations and methodologies, with site visits as considered appropriate.

We appreciate that the details for ecological survey & assessment for protected and Priority species likely to be present in the Preferred Corridor and would be affected, will come at a later stage.

We note that if any ecology constraints are scoped out of the Options Appraisal, they would still be covered in the Environmental Statement for assessment.

#### Bramford to East Anglia Connection (EAC)

We understand that the route in this section, as well as the substation site, will need to fit in with other projects e.g. Bramford to Twinsted NSIP, and we would welcome the opportunity to input local knowledge to this element of the project.

We note that para 5.5.3 recognised that from a Biodiversity and Ecology perspective, Options BE1 and BE2 were considered to perform more poorly than other options due to the potential for a Likely Significant Effect (LSE) on the Stour and Orwell Estuaries SPA and supporting Cattawade Marshes SSSI (which forms part of the SPA). We welcome this as NPS- EN5 states that particular attention will be needed to minimise the likelihood of large birds such as swans and geese colliding with overhead lines associated with power infrastructure particularly in poor visibility.

We recommend that crossing the Suffolk/Essex county boundary needs careful consideration as Swans are a qualifying feature of the Stour & Orwell Estuaries SPA which includes Cattawade Marshes SSSI. We highlight that this would trigger a requirement for a shadow HRA screening report to assess impacts from EA GREEN, either alone or in combination with other plans and projects.

We note that, overall, western options (Options BE3 and BE4) are preferred from a Biodiversity and Ecology perspective as they would not be likely to result in LSEs on these designations. However, with the exception of Option BE3, which contains (though does

not route through) the Hintlesham Great Wood SSSI, all options avoid smaller areas of high amenity value or scientific interest (Holford Rule 2). Whilst Options BE3, BE4 and BE5 do contain more areas of woodland than the other options, the corridors are considered to be of sufficient width to allow the identification of alignments which would avoid such woodland. We agree that further work is required as part of the detailed routing process to refine an alignment to comply with this rule as far as possible. Whilst more westerly options are preferred from a Biodiversity and Ecology perspective, Option BE5 is assessed to have the least potential of those that pass through the Dedham Vale AONB to have potential for effects resulting in LSEs on the designations of the Orwell Estuaries SPA and Cattawade Marshes SSSI (part of the above SPA).

Based on the information provided, we support the graduated swathe for Bramford to EAC based on **Option BE5 is the preferred option.**

### EAC

We note that from an Ecology and Biodiversity perspective in relation to the siting of the substation, all the siting option zones were considered comparable when applying standard best practice mitigation measures. With regard to the 400kV overhead lines, all corridors were assessed as neutral, and could support a route alignment, subject to appropriate and localised mitigation hierarchy mitigation and habitat reinstatement.

Based on the information provided, we support **Zone A as the preferred option for the EAC.**

We understand that the substation site will need to fit in with other projects e.g. Five Estuaries and North Falls NSIPs, and we would welcome the opportunity to input local knowledge to fine tuning this element of the project to confirm a location with the chosen siting zone around the existing substation.

### EAC to Tilbury

We note that Abberton Reservoir SPA falls wholly within the Study Area (it is surrounded) and is included for the same reason. Species dependant on these designated areas may forage, roost or migrate (on a daily and/or seasonal basis) on non-designated habitats surrounding the designations or further inland.

We also note that from a Biodiversity and Ecology perspective, corridor options composed of sections furthest from the coast (Sections F, G, H, J, K and R) are preferred from the EAC substation to Tilbury. These corridor options are not likely to result in adverse effects on the integrity of internationally designated sites, or at the very least present significantly less risk in respect of Likely Significant Effects (LSEs) on the integrity of the international and supporting nationally designated sites. The relevant sites are listed below:

- Section N (Colne Estuary SPA, Colne Estuary Ramsar, Colne Estuary SSSI, Blackwater Estuary SPA, Blackwater Estuary Ramsar, Blackwater Estuary SSSI, Essex Estuaries Special Area

of Conservation, Abberton Reservoir SPA, Abberton Reservoir Ramsar and Abberton Reservoir SSSI);

- Section P (Blackwater Estuary SPA, Blackwater Estuary Ramsar, Blackwater Estuary SSSI, Essex Estuaries SAC Essex Estuaries (and component SSSIs); and
- Section S (Crouch and Roach Estuaries SPA, Crouch and Roach Estuaries Ramsar, Crouch and Roach Estuaries SSSI, Benfleet and Southend marshes SPA, Benfleet and Southend Marshes Ramsar (and component SSSIs), Thames Estuary and Marshes SPA, Thames Estuary and Marshes Ramsar (and component SSSIs), Outer Thames Estuary SPA, Outer Thames Ramsar , SAC Essex Estuaries SAC and Blackwater Estuary SPA, Blackwater Estuary Ramsar , Blackwater Estuary SSSI and Pitsea Marsh, Langdon, Vange & Fobbing Marshes, Holehaven Creek Mucking Flats and Marshes SSSIs).

These designated sites (which include highly mobile qualifying interest features) and functionally linked habitats, are sufficiently close to the corridor options east of Colchester and which are close to the coast, to mean that direct or indirect effects would result in LSEs on the integrity of the designated sites. In addition, these corridor options cross potential connectivity pathways to the designated sites (e.g. River Blackwater) which would be likely to result in LSEs and with potential for Adverse Effects on Integrity (AEol) of the designated sites, during both construction and operation of the transmission connection. This potential long term operational effect arises from the potential collision of those species with overhead lines (the earthwire is typically of most concern in 400kV overhead line connections due to its lower visibility) as highlighted above in relation to NPS EN5. The employment of alternative technology such as undergrounding in the ZOI is a potential mitigation, but in itself, may result in LSE or AEol so would trigger a requirement for a shadow HRA screening report to assess impacts from EA Green, either alone or in combination with other plans and projects.

We acknowledge that the Blackwater Estuary and Abberton Reservoir are likely to have a considerable level of exchange of birds between them (a functional relationship that is not fully understood at this stage of appraisal), including species that are known to be vulnerable to risk of overhead line collision. This has the potential to apply to some or all of the other designations along the coastal corridor options. Thus, it confers further significant complexity in terms of both approach to survey and assessment, and thus the evidential burden on the project in terms of the quality and amount of the survey data required to rule out AEol beyond all reasonable scientific doubt, in consultation with Natural England.

It is acknowledged that section R would fall within close proximity to the Thames Estuary and Marshes SPA (and Ramsar site) with the potential for LSEs. However, due to the orientation of section R, which approaches the coast from inland rather than running parallel to the coast, it is not in such close proximity to the designations. It is therefore likely to have less adverse effects than of section S, the only alternative to link to Tilbury

Substation. Therefore, whilst there is potential for some LSEs to occur, the weight of probability is that any AEol are potentially more capable of being adequately negated through mitigation measures. Should AEol remain, it would be necessary to demonstrate no better alternative (section S does not provide this) and Imperative Reasons of Overriding Public Interest (IROPI), and clear and demonstrably sufficient levels of compensatory measures to demonstrate the maintenance of overall coherence of the designated site affected, would be required. Section R thus provides the preferable alternative to section S, which is adjacent to the designated sites and the expert assessment is that the latter is more likely to result in AEol.

We therefore welcome that Option ET1, routeing to the north of Colchester and to the west of Chelmsford (composed of either Section F and G, or Sections H and J, plus Sections K and R) was therefore considered the preferred option from a Biodiversity and Ecology perspective.

Based on the information provided, we support the graduated swathe for EAC to Tilbury based on **Option ET1 is the preferred option.**

### **Other matters**

We are concerned that more information is needed to understand the impacts on hedgerows along the route, particular those that could be important for bat foraging and commuting routes for Barbastelle bats or Dormouse.

### **Next Steps**

We seek to inform choices on micro routeing to avoid ecological features including veteran trees (irreplaceable habitat) and species options for restoration planting schemes as well as securing temporary mitigation measures during construction

### **Highways and Transportation**

This non statutory consultation represents an early strategic consultation and from a highways viewpoint and any comments that are made at this time can only be based on the limited information it contains in terms of the impact on Highways and Transportation. A such it is similar to other NSIP proposals at, for example, Bramford-Twinstead, North Falls and Five Estuaries in that we can only really enter into meaningful dialogue once there is clarity on the route of the East Anglia Green scheme, working areas and method of construction that will start to determine requirements for access points, HGV traffic/volumes, temporary road /PROW closures or mitigation works and workforce which will temporarily impact on the operation of the highway network.

However, and at this time, the proposal as presented by EAG are lacking in any detail whatsoever to make a qualified, considered and informed professional comment on the impact of the development from a highways and transportation perspective. It is disappointing that the consolation lacks any detail and it is assumed that this important topic has not been used to qualify or evaluate the effectiveness or otherwise of any rote choice whatsoever.

Going forwards proposals will be required to demonstrate that the local and strategic highway network will be able to accommodate the type and number of vehicle movements proposed during the construction, and operational phases of the site. In addition, proposals will need to demonstrate that both the site access(s) and vehicle movements to and from the site will have no adverse impacts on highway safety, including consideration to any impact on vulnerable road users and Public Rights of Way.

Offsite mitigation may be required to ensure that the network is suitable for the expected level of construction traffic. As such the NSIP should be accompanied by a detailed Transport Assessment and Construction Traffic Management Plan, the scope of which should be agreed with the Highway Authority. In this regard applicants are strongly encouraged to engage with Essex Highways prior to the submission of the NSIP to the Planning Inspectorate.

Where opportunities exist for access to significant development sites to be made by active and sustainable travel modes during the construction period these shall be exploited and/or further enhanced by improvements to the highway network for walking, cycling and public transport. A Travel Plan will also be required for all development sites to (where possible) promote the use of active and sustainable modes of travel and also to support initiatives such as car sharing and/or mini bus shuttle services that may be applicable to more isolated rural locations.

It is essential that all NSIPs are accompanied by up to date information regarding the extent of the highway boundary and any affected Public Rights of Way insofar as affected by the development site, site access(s) and any proposed offsite highway mitigation.

When looking at the EAG scheme website it is noted that the project is in very close proximity to the A12 and is proposed to start on site in 2027. If the projects commence on time there will be a construction overlap. With this in mind it is not correct to state at 4.4.4 that "there will be no construction overlap" as this is clearly not the case. It is necessary therefore to show how this overlap will affect each proposal in combination.

In addition it is likely that in the near future the as anticipated dualling of the A120 from Braintree to Marks Tey will come forward. It is not known how EAG will interface with the same.

### **Lead Local Flood Authority**

ECC as the LLFA notes the current documentation provided shows very limited if any meaningful consideration in relation to flood risk. While the development may have a minimal physical footprint, it should not lead to the exclusion of flood risk from the constraints to be considered, including haul routes, compounds, river crossings, horizontal drilling, soil storage etc.

Overarching National Policy Statement for Energy (EN-1) clearly indicates that Flood risk is a 'generic impact' that requires consideration on all energy projects. While Section 5.7 of EN1 states that "*Although flooding cannot be wholly prevented, its adverse impacts can*

*be avoided or reduced through good planning and management."* However, no high-level consideration is currently demonstrated in relation to this project at this time.

Some further consideration of all sources of flood risk would need to be provided in the route selection process for both the temporary and permanent works proposed to be included within the scheme.

### **Socio Economics**

The potential socio economic impact of this DCO proposal is both hugely significant and understated in the current round of consultation to the detriment of the submission.

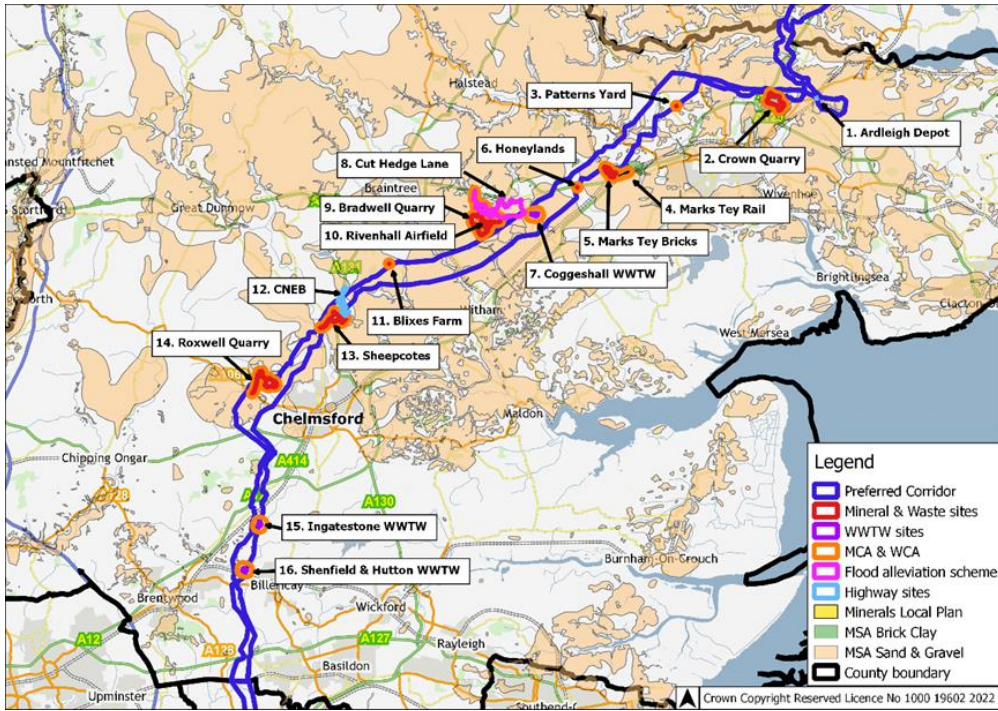
ECC are keen to work with the developers to establish an Essex Adult Skills Programme, based on other schemes that they've set up elsewhere in the country. We'd wish to target specific groups and help local people find new jobs through this Adult Skills programme. We would also encourage the developer's early intervention with Essex schools to prep the future workforce and assist in the general CEIAG agenda.

By working directly with us and our partners, East Anglia Green can join an established network of skills providers and Anchor institutions with a clear focus on developing the skills base of Essex residents whilst meeting the needs of NSIPs and other projects. We are keen to identify local skills gaps in the construction industry and develop targeted training programmes to help plug any gaps.

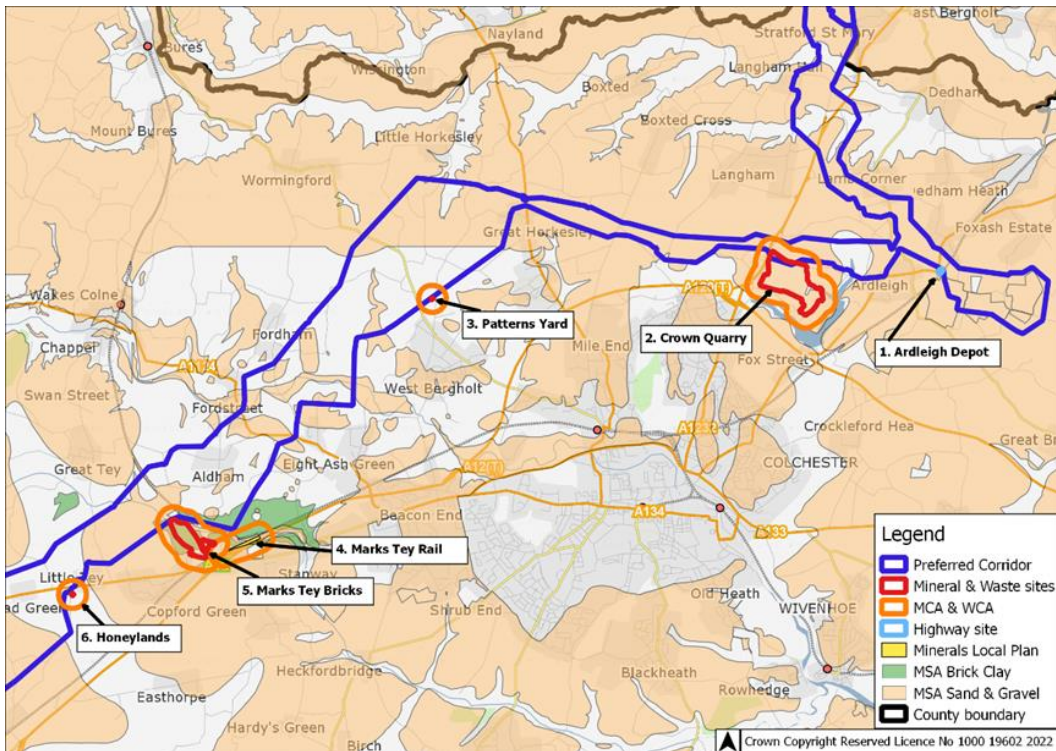
## **Appendix Two**

Map 1 – Minerals and Waste Safeguarding Screening – Full Extent of Proposed Development



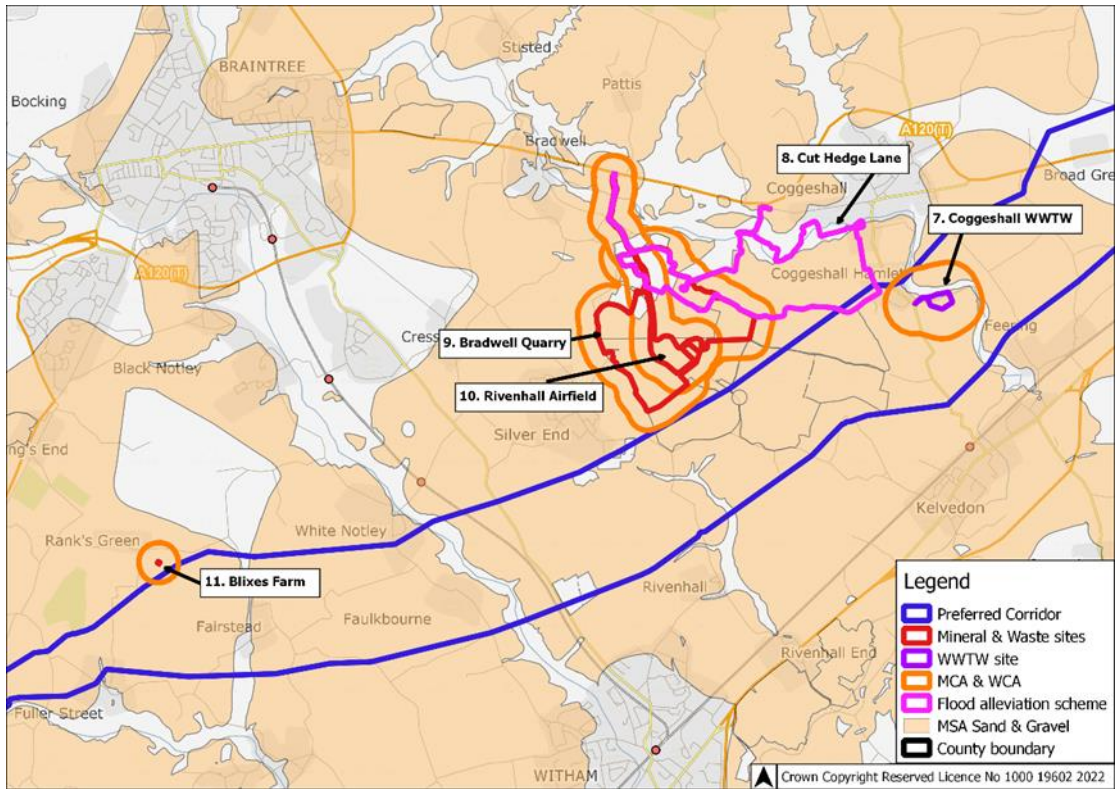


Map 2 – North East Essex

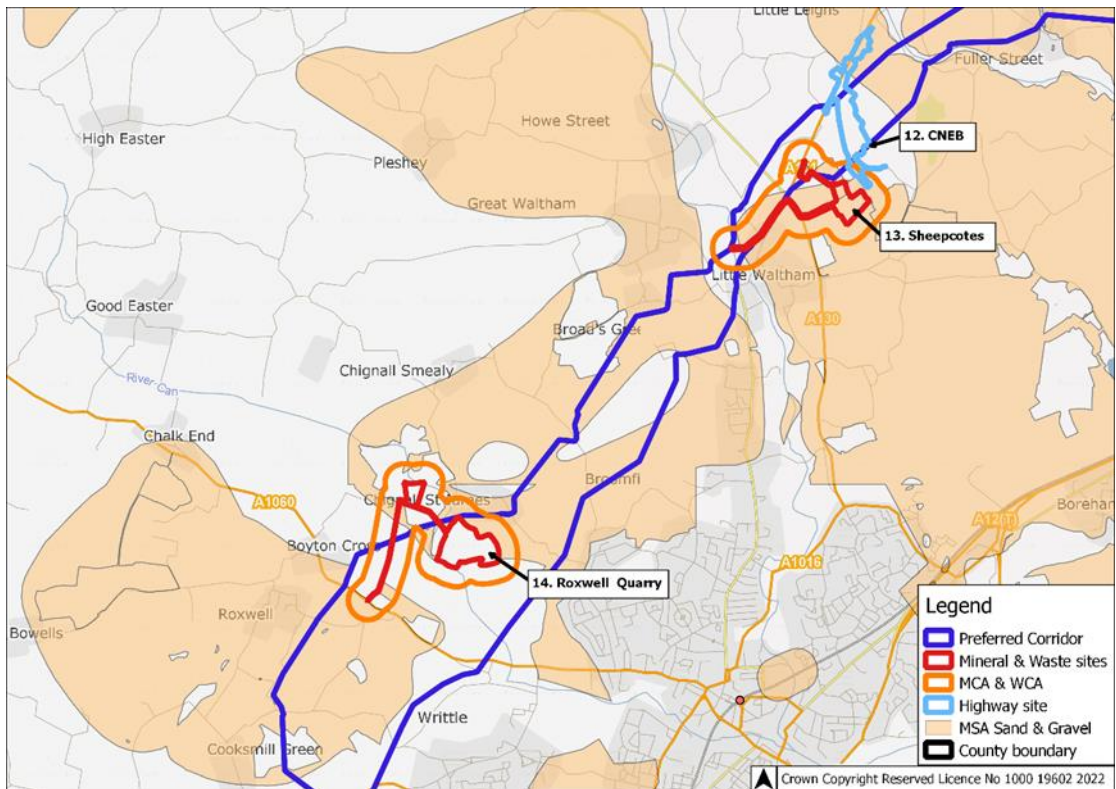


Map 3 – North Essex

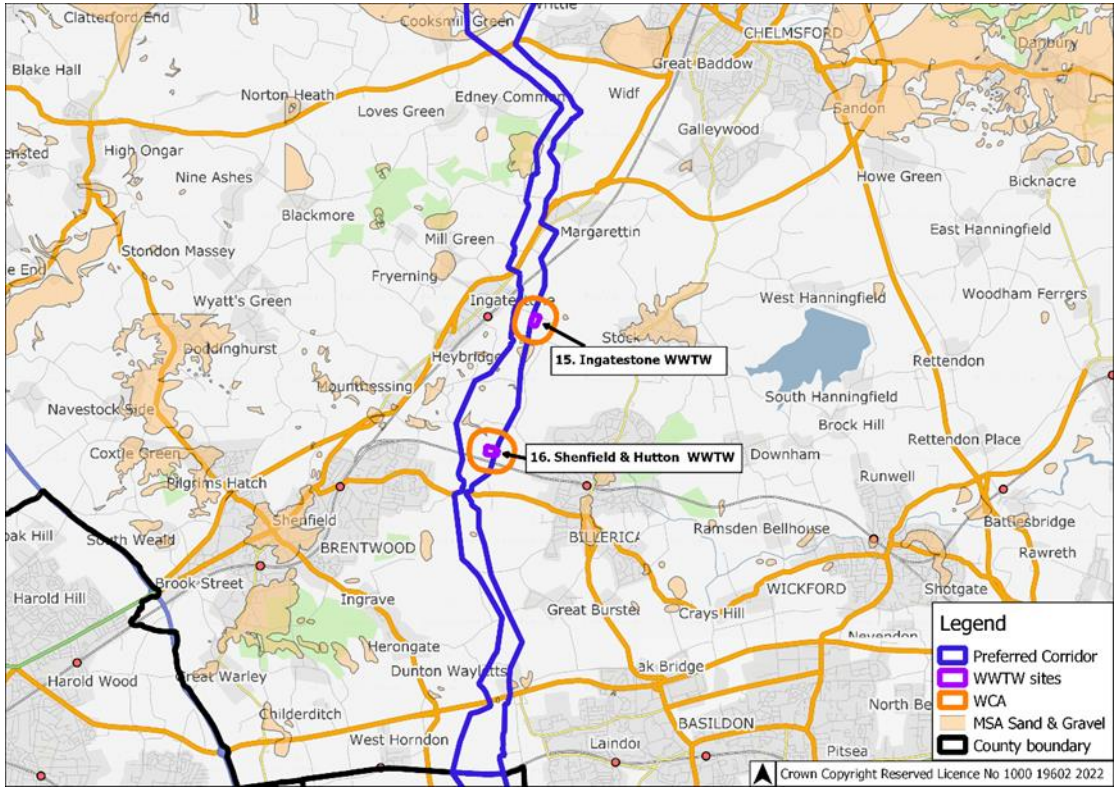




Map 4 – Central Essex



Map 5 – South Essex



### Appendix Three

#### Schedule of Safeguarding Designations and Safeguarded Minerals and Waste Infrastructure Relevant to The Application Site

#### Schedule of mineral infrastructure and designations within the application site

Details of planning applications can be viewed on the [ECC website](#), by accepting the disclaimer and then searching on the planning reference

Site type	Site name	Planning application number	Further Details
Mineral Safeguarding Areas  Policy implications set out under 'Mineral Matters – Safeguarding Mineral Resources'. Subject to MSA designation – Policy 8 of the Essex Minerals Local Plan 2014  Spatial extent shown in Appendix Two.	Sand and gravel	N/A	
MLP Allocations or Safeguarded Mineral Development Sites  Policy implications set out under 'Mineral Matters – Safeguarding Mineral	2. Wick Farm, Ardleigh RESERVOIR, Crown Quarry (Ardleigh Reservoir Extension), Old Ipswich Road, Tendring, Colchester, CO7 7QR	ESS/57/04/TEN - Winning & Working of minerals, removal of surplus soils & erection of a low profile processing plant concrete batching plant & ancillary buildings (inc a workshop). Interim restoration to lakes & subsequent construct of a public water storage.	17/07/2028 permission end date

<p>Infrastructure'. Subject to MCA designations – Policy 8 of Essex Minerals Local Plan 2014.</p> <p>Spatial extent shown in Appendix Two.</p>			
	4. Marks Tey Rail Siding	MLP2014 Site F3 (p181)	
	5. Marks Tey Bricks, Church Lane, Marks Tey, Colchester, Essex, CO6 1LN.	ESS/26/08/COL - Periodic review of mineral permission IDO/COL/1/92A for the extraction of brickearth clay and use in the adjacent brickworks	
	8. Land North of Cuthedge Lane, Grange Farm, Coggeshall, CO6 1RE	ESS/01/19/BTE/SPO - EIA Scoping Opinion Request re: Creation of a passive flood alleviation scheme through the construction of a low level “on-line” embankment (or dam) across the River Blackwater and the creation of an “off-line” flood storage area and connection points within the flood plain of the Blackwater Valley which will be delivered through the phased extraction of approximately 13 million tonnes sand and gravel and the restoration of land for agricultural purposes with a wetland flood meadow using the underlying clay	Opinion Issued – 25/02/2019
	9. Bradwell Quarry	MLP2014 – Sites A3, A4, A5, A6, A7 (p145 – 151)	
		<p><b>Site A5</b>  <b>Extant Permission</b></p> <p>ESS/03/18/BTE - Site A5 came forward as a planning application in 2018 and was granted planning permission. Extraction and progressive restoration is ongoing within site A5, with anticipated completion in 2022.</p>	

		<p><b>Current Application(s)</b></p> <p>ESS/35/20/BTE - to allow extended week day hours for the dry silo mortar plant for the life of the development following the 12-month trial period. (Decision pending a legal agreement)</p> <p>ESS/79/20/BTE - to allow amended timescales for phasing of working and restoration, such that restoration is required to be completed by July 2021, one year later than previously permitted. (Decision pending a legal agreement)</p> <p><b>Site A6</b></p> <p>No applications have been submitted on this site.</p> <p><b>Site A7</b></p> <p>ESS/12/20/BTE - Extraction of 6.5 million tonnes of sand and gravel (Decision pending a legal agreement)</p>	
	<p>13. Land at Sheepcotes Farm, Sheepcotes Lane, Little Waltham, CM3 3LU</p>	<p>ESS/01/18/CHL - The construction of an agricultural reservoir involving the extraction, processing and exportation of sand and gravel and soils; the erection and use of an on-site processing plant with ancillary</p>	<p>Commencement required by 31/07/2022. Once commenced, mineral extraction to be completed within 5 years; with</p>

		facilities; and highway and access improvements. Together with the construction of an associated irrigation pipeline from the proposed abstraction point (River Chelmer at Langleys, Great Waltham)	restoration due within a further 12 month period
	14. Roxwell Quarry	Previously subject to ESS/70/17/CHL	The landfill or quarry are not active anymore. The eastern side of the site is restored and landfill gas is being extracted. The western side of the site is currently being restored and is due to have seeds planted in the next few months.

#### Schedule of waste infrastructure and designations within the application site

Site type	Site name	Planning application number	Further Details
Waste management infrastructure (subject to WCA designations – Policy 2 of Essex and Southend-on-Sea Waste Local Plan)	1. Ardleigh Highway Depot	CC/TEN/83/05 - The construction of a 14m high 'dome' building for the storage of Road Salt, with the formation of hard surfacing and the erection of 2.5m high steel palisade fencing to site perimeter	
	3. Patterns Yard, Nayland Road, West Bergholt, Colchester, CO6 3DG	ESS/41/11/COL - Retrospective importation of inert waste material (hardcore, concrete and soils), together	



		with storage and recycling of the same prior to export from the site.	
	6. Honeylands Farm, Little Tey, Marks Tey, Colchester, CO6 1HU	ESS/41/08/COL - Change of use of an industrial unit to a waste transfer station to be used for the recycling of waste arising from highway gullies, including the construction of concrete pads, sumps, ancillary equipment, office and welfare facilities	
	7. Coggeshall WWTW, Blackmore End, Braintree CM7 4DF	Braintree District Council permission 76/00763/P – Construction of new sewage treatment works and access road.	
	10. Land at Rivenhall Airfield, Coggeshall Road (A120), Braintree CO5 9DF	ESS/34/15/BTE – (inter-alia) ‘The Integrated Waste Management Facility comprising: Anaerobic Digestion Plant treating mixed organic waste, producing biogas converted to electricity through biogas generators; Materials Recovery Facility for mixed dry recyclable waste to recover materials e.g. paper, plastic, metals; Mechanical Biological Treatment facility for the treatment of residual municipal and residual commercial and industrial wastes to produce a solid recovered fuel; De-inking and Pulping Paper	Likely to recommence implementation in 2021.

		<p>Recycling Facility to reclaim paper; Combined Heat and Power Plant (CHP) utilising solid recovered fuel to produce electricity, heat and steam; extraction of minerals to enable buildings to be partially sunken below ground level within the resulting void; visitor/education centre; extension to existing access road; provision of offices and vehicle parking; and associated engineering works and storage tanks. And approval of details...'</p> <p>WLP2017 - IWMF Rivenhall - IWMF2</p>	
	<p>11. Slaughter House at Blixes Farm, Ranks Green Road, Fairstead, Essex, CM3 2BH</p>	<p>Earliest ECC electronic record</p> <p>ESS/33/15/BTE - Installation of a sealed rectangular plastic coated polyester fabric bladder tank complete with vent pipes and drum type activated filters, measuring 29.20m long x 25.66m wide x 2.80m deep of which 1.1m would be above ground level to facilitate the storage of abattoir wash water</p>	
	<p>15. Ingatestone WWTW</p>	<p>Earliest ECC electronic record</p>	



		ESS/22/05/BRW - Construction of kiosk to house electrical equipment to control plant on site. Can't find Brentwood permission.	
	16. Shenfield & Hutton WWTW	ESS/46/17/BRW - Lawful Development Certificate	

### Other County Matters

Site type	Site name	Planning application number
Road Scheme	12. Chelmsford North-east Bypass (CNEB)	CC/CHL/85/21 – Chelmsford North East Bypass (CNEB): A single carriageway road between Roundabout 4 of the Beaulieu Park Radial Distributor Road (RDR1) and a new roundabout on the A131 at Chatham Green plus dualling of the existing A131 between Chatham Green and Deres Bridge roundabout. With one intermediate roundabout, 3 road overbridges and 1 pedestrian/cycle/horse overbridge. Together with other associated works and landscaping.