



Sea Link

Non-Statutory Consultation

Suffolk County Council Response

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Introduction

- 1.1 The following comments of Suffolk County Council (SCC) are in response to the non-statutory consultation held between 24th October and 18th December 2022 by National Grid Electricity Transmission (NGET) for the construction of a 2GW High Voltage Direct Current (HVDC) undersea electricity link between Suffolk and Kent, known as Sea Link.
- 1.2 The onshore infrastructure in Suffolk consists of a converter station, onshore Direct Current (DC) cables, onshore Alternating Current (AC) cables and a transition bay. The onshore AC cables will connect the converter station to the consented, but as yet unbuilt NGET substation at Friston in East Suffolk which will entail its extension.
- 1.3 The SCC electoral divisions which will be directly affected by the scheme include the following: -
 - Felixstowe Coastal
 - Felixstowe North and Trimley
 - Wilford
 - Aldeburgh and Leiston
 - Blything
 - Kessingland and Southwold
 - Lowestoft South
- 1.4 The first section of this representation outlines the key issues which SCC have identified, which has been informed by the technical expertise of its technical specialists, which are provided in Appendix A. SCC has also set out an interim structured approach to the issues posed by this and other proposed developments coming forward 'Interim Siting and Design Principles for Offshore Wind and Interconnectors in Suffolk,' which can be found in Appendix B.
- 1.5 The Council is responding to this consultation on the basis that both Euro Link¹ and Nautilus² Multi-Purpose Interconnectors (MPIs), promoted by National Grid Ventures (NGV), will be connecting in Suffolk, notwithstanding the promoter's current efforts to secure a connection for Nautilus at the Isle of Grain in Kent, and notwithstanding the Council's comments raised in its response to Eurolink.

¹ <https://www.nationalgrid.com/national-grid-ventures/eurolink>

² <https://www.nationalgrid.com/national-grid-ventures/interconnectors-connecting-cleaner-future/nautilus-interconnector>

General Comments

SCC's Energy Infrastructure Policy

1.6 The SCC Energy Infrastructure Policy was adopted in February 2021 which sets out the Council's overall stance on projects required to deliver the UK's Net Zero ambitions. The policy is relevant for the position of SCC on the Sea Link proposals, and states:

*"Suffolk County Council has declared a Climate Emergency and is therefore predisposed to supporting projects that are necessary to deliver Net-Zero Carbon for the UK. However, projects will not be supported unless the harms of the project alone, as well as cumulative and in combination with other projects, are adequately recognised, assessed, appropriately mitigated, and, if necessary, compensated for"*³

1.7 SCC will follow this approach in this representation and throughout the Development Consent Order (DCO) process.

1.8 SCC continues to be willing to work through the issues with NGET towards improvements to the proposals and required mitigations and looks forward to further engagement.

Need for the project

1.9 SCC recognises the importance of subsea interconnectors as part of the nationally required infrastructure to decarbonise the grid, improve energy supply resilience and help meet the challenges of climate change, however it does not consider that the need case for the Sea Link proposals is adequately explained in the consultation material.

1.10 NGET states in their material that the Sea Link project is required due to the existing energy transmission network not having sufficient capacity to allow the connection of all the new energy that is expected to come forward in the next eight years and beyond. However,

1.11 SCC considers that NGET is not explicit and clear enough in the consultation material to explain the need case for the Sea Link project, in its proposed location. The need case, rather, has more clearly emerged during the consultation. Following participation in virtual and in person events, SCC understands that the need for this project is driven by firstly, a combination of local and regional and national increases in generation capacity across the network; secondly, by the need to ensure the required network redundancy and resilience, to support this new generation, under the terms of the Security and Quality of Supply Standard (SQSS).

³ SCC Energy and Infrastructure Policy: <https://www.suffolk.gov.uk/assets/suffolk.gov.uk/strategic-electricity-networks/SCC-Energy-Policy-230212.pdf>

- 1.12 During the consultation, and particularly at public consultation events, there was discussion and exploration of the role of energy islands in providing and supporting a coordinated offshore network, which is assumed could reduce the terrestrial harm of the project. SCC recognises that there is considerable public interest in this issue, which has also been bolstered by the recent publication of the North Sea Wind Power Hub feasibility report in November 2022⁴. Therefore SCC requests that NGET provides information to such options, as to the role, utility, and timeliness, of energy islands to support, or not, offshore coordination whilst delivering the necessary targets and required deadlines.
- 1.13 Whilst it is recognised that the need case for this project is complex and multi-layered, SCC considers that it is essential for NGET to clearly explain this case to the communities, and the statutory and non-statutory consultees, in particular in any forthcoming consultations. The comments provided in this response are on the basis that such a needs case can, and will, be provided.

Coordinated approach between Sea Link, Eurolink and Nautilus

- 1.14 SCC's clear preference is for a coordinated and offshore centred approach which is delivered at pace to minimise onshore infrastructure in Suffolk. Therefore, the principle of this project to reinforce the transmission network as an alternative to onshore pylons is acceptable. SCC also welcomes the specific reference in the consultation document to the Business, Energy, and Industrial Strategy (BEIS) review of offshore coordination.
- 1.15 It is noted that, unlike MPIs such as Eurolink which could be connected elsewhere in the United Kingdom, the Sea Link project must, in order to deliver the necessary network reinforcement, be connected in Suffolk.
- 1.16 As noted above, SCC is responding to this consultation on the basis that both Euro Link and Nautilus MPIs, promoted by National Grid Ventures (NGV), will be connecting in Suffolk, notwithstanding the promoter's current efforts to secure a connection for Nautilus at the Isle of Grain in Kent (which would be welcomed by SCC as this would be in line with its evolving principles for the siting and design for the connection of offshore wind and interconnector infrastructure in Suffolk), and SCC's view that, unlike Sea Link, MPIs have more flexibility as to their onshore landing points, and hence could equally be connected elsewhere in the United Kingdom in less harmful locations, with less cumulative impact pressures.
- 1.17 If it is not possible for Nautilus and/or Eurolink to connect in other locations outside Suffolk, which are less harmful and/or have a lesser level of cumulative impacts, SCC considers that co-location of projects (including Sea Link) and coordination of cabling, construction and schemes of mitigation is essential. Therefore, cable landing points and potential converter station sites, that do not support such coordination are unacceptable to SCC.
- 1.18 The applicant is proposing two possible converter station sites that are capable of delivering a consolidated and coordinated approach with the two MPIs,

⁴ <https://northseawindpowerhub.eu/knowledge/hubs-and-spokes-viable-beyond-theory>

Nautilus and Eurolink. These two MPIs may also be capable of supporting the offshore connection of wind farms in UK waters.⁵

- 1.19 Each of the converter stations for these three projects are proposed to cover five to six hectares in area and 25 to 30 metres in height. Consolidation of these projects into one site would significantly reduce the spatial extent of adverse impact, although SCC recognises that this would not avoid a significant magnitude of change in the hosting location, or substantial residual visual impact in the locality.
- 1.20 Therefore, it is the view of the SCC that a consolidated site should, as far as possible minimise adverse impact in the long term. To achieve this, short-term issues around ease of construction should be set aside and focus should be on achieving the best available operational outcome.
- 1.21 This response is guided by the siting and design principles for the connection of offshore wind and interconnector infrastructure in Suffolk (see Appendix B).

Need for an exemplary approach to minimising long-term impact

- 1.22 Given the sensitivities and cumulative pressure on the area, SCC expects NGET to take an exemplary approach to site selection, design and embedded and secondary mitigation. NGET should prioritise the minimisation of the permanent, operational harms, arising from this development alone and together with those of the MPI projects. The objective should be to achieve the least possible long-term negative impact on communities and the environment. This prioritisation of minimising permanent harm is reflected in the interim design and siting principles, set out in the detailed response. It is recognised that such an approach may potentially affect the extent of temporary harm during construction. However, given the extent and magnitude of the proposed projects, priority should be given to minimising permanent harm.

Overview of SCC's position on the specific proposals

- 1.23 As to the proposed options, the key priority should be to achieve a coordinated approach and minimise impacts. The approach taken in option selection and in the development of the preferred option should be to prioritise avoidance before mitigation and to prioritise mitigation before compensation, in accordance with the mitigation hierarchy. This means that SCC considers:
 - Proposed converter station site 1 (Aldeburgh) is unacceptable due to its proximity to the AONB.
 - Converter station site 3 (Saxmundham) has significant constraints, and further assessment needs to be undertaken as to practicalities and impacts of this site.
 - The applicant should also reconsider the site at Theberton/ Leiston Airfield (which NGET discarded as an option for Sea Link), which the Eurolink consultation has included (as Eurolink's site 4) in their options appraisal.

⁵ <https://www.gov.uk/government/publications/offshore-transmission-network-review-pathfinder-projects/joint-statement-from-north-falls-five-estuaries-and-national-grid-commitment-to-exploring-coordinated-network-designs-in-east-anglia>

- The proposed Landfall site at Sizewell is unacceptable as it is too constrained and would not allow more than one cable route hence coordination would be impossible. As a result, the cable routes referred to as “Site 1 and 3 Alternative Routes” are not feasible.
- The proposed landfall site between Aldeburgh and Thorpeness, and cable routing to a converter station site, has substantial ecological and other challenges and constraints which need to be fully assessed.

1.24 Whichever option is chosen, SCC expects a comprehensive assessment of impacts, including full consideration of cumulative impacts with other major projects in the area, and a comprehensive package of mitigation measures where avoidance of impacts is not achievable. Where there are residual impacts that cannot be avoided or mitigated (or further mitigated), SCC expects to see compensatory, or offsetting measures put in place for the benefit of the local receiving environment and/or local communities. It would not be acceptable for the harm arising from residual impacts to be imposed on the local environment or community and left to be weighed against the benefits delivered without first following all the steps of the mitigation hierarchy.

Key Issues and Summary of Feedback on Options

Community Benefits and Project Legacy

- 1.25 Secondary mitigation should be in addition to any community benefits from the development, including any arising from emerging requirements in the anticipated consultation on Community Benefits foreshadowed in the British Energy Security Strategy.
- 1.26 SCC encourages the project promoter to consider such community benefit options and would be happy to discuss how community benefit suitable for the locality could be incorporated.
- 1.27 SCC also encourages project promoters to consider legacy opportunities of all elements of their development.

Archaeology

- 1.28 The archaeological implications of multiple schemes in this landscape are cumulatively increasing for every project and SCC notes that possibilities for co-location of elements of this scheme with the Eurolink project are being explored which would increase impacts. Although SCC would generally see a benefit in this coordination, this does have the potential to reduce the flexibility to be able to avoid significant archaeology which has yet to be defined.
- 1.29 To inform the siting and routing of the proposed scheme, a thorough desk top assessment and field evaluation is needed to allow the archaeological potential of the different parts of the study area, and therefore the likely impacts of the proposed development, to be fully assessed. Evaluation will provide sufficient

baseline information to enable design decisions to be made and to inform planning decisions.

Skills Training Measures

1.30 The construction period for Sea Link is predicted to coincide with Sizewell C Nuclear Power Station. It is anticipated that there will be significant pressure on the available workforce, also considering other proposed projects in the area, such as Nautilus and Eurolink. This could reduce the opportunities to secure any skills and employment legacy from the construction workforces as the projects will be occurring in parallel.

Flood Risk

1.31 All sources of flood risk should be considered as part of the site selection process, with the Sequential & Exception Tests being undertaken for sites where any source of flood risk is identified. It has not been demonstrated that all sources of flood risk, including allowances for the current and future impacts of climate change, have been considered as part of the site selection and cable corridor selection process.

1.32 The Friston sub-station location is particularly sensitive in terms of surface water flood risk to downstream receptors and therefore it must be adequately assessed both during construction and operation.

Tourism Mitigation

1.33 SCC anticipates that the proposed development, alongside other proposed and consented schemes within locations close to Suffolk Coast and Heaths AONB and other rural areas important to the Suffolk, could have significant impacts upon visitor perception and visitor numbers both during construction and during operation.

Traffic and Transport

1.34 NGET will be aware that a number of recent NSIPs have been submitted and given consent in the local area most notably, Sizewell C, East Anglia One North and Two and East Anglia Two, and therefore, there is a large amount of information and data available from these projects which should be considered as part of the Sea Link proposals.

1.35 As set out in the consultation documentation, NGET are also aware of the Euro Link and Nautilus proposals in the area and have considered options for a coordinated approach to the sites.

1.36 SCC considers that NGET should continue discussions with all of the above developers to minimise highways impacts on the local communities, such as requirements for materials and associated HGV movements, workforce numbers and traffic management on the highway network.

1.37 As no information has yet been provided regarding vehicle or construction workforce forecasts or how traffic movements may be reduced e.g. through the use of haul roads, SCC can only provide limited comments at this stage. SCC expects these impacts to be fully assessed and mitigated, especially as regards

to any potential construction traffic impacts on SCC's rural road network and the limited options for suitable HGV and AIL routes once the EAG route alignment has been chosen. Decommissioning/removal also needs careful consideration.

Cumulative impacts

- 1.38 Given the number of infrastructure and other developments proposed in the area, the need for a full assessment of environmental and socio-economic impacts of the cumulative effects of the proposed development in conjunction with those other projects is particularly important.

Proposed Connection to Friston Substation

- 1.39 The Sea Link scheme is proposed to connect to the approved (through the East Anglia One North and East Anglia Two DCOs) but not yet built National Grid substation at Friston. It is noted that these development consents are currently pending a Judicial Review. SCC understands that additional infrastructure is likely to be required, which will probably require the expansion of what is already a constrained site. It is also noted that these development consents were subject to an unsuccessful Judicial Review (judgment given on 13 December 2022) but it is not yet known whether there will be any appeal.

Proposed Converter Station Sites

SCC Evolving Siting and Design Principles for Onshore Infrastructure

- 1.40 Appendix B sets out SCC's evolving siting and design principles for onshore infrastructure.
- 1.41 SCC's first preference for siting converter sites should be appropriate brownfield/previously developed sites.
- 1.42 In the absence of appropriate brownfield/previously developed sites, consideration should be given to new sites adjacent to existing built development, specifically industrial/commercial.
- 1.43 Sites adjacent to, or within the setting of an Area of Outstanding Natural Beauty (AONB) (or National Park, where applicable), should not be considered at all unless, exceptionally, recognising the need to deliver strategic Net Zero energy infrastructure, there are no alternative sites, or the site is brownfield/previously developed and there is capability to effectively mitigate the development to the extent that it has no minimal impacts on the designation.
- 1.44 It is recognised that other sites which fall within ANOB, or National Park may need to be considered, but only if it can be conclusively proven that there are no alternative viable sites.

Converter Station Site 1 (Aldeburgh)

- 1.45 Converter Station Site 1 is located on land to the north of Hazlewood Hall, Aldeburgh.
- 1.46 Having reviewed the information provided by the applicant and considered the options in this consultation, SCC considers the site unacceptable due to its

prominent location adjacent to and overlooking the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and other protected sites.

- 1.47 The site is highly constrained as it is set in gently rolling countryside within the setting of, and on two sides adjacent to the AONB, on the outskirts of Aldeburgh, to the north of Hazlewood Hall.
- 1.48 It is wholly within the Estate Sandlands landscape of the Suffolk Landscape Character Assessment (LCA). It is typical of that landscape, consisting of regular late enclosure fields, plantation woodlands and coverts, characteristic of that landscape type.
- 1.49 The site appears to be elevated by at least ten metres relative to the A1094, which runs along the northern side of the boundary of the Suffolk Coast and Heaths AONB which would further increase the visual impact of the buildings of the scale proposed.
- 1.50 The site is within 2 km of the Alde-Ore Estuary Site of Special Scientific Interest (SSSI) and RAMSAR sites, the Sandlings Special Protection Area (SPA), North Warren RSPB Reserve, Snape Warren SSSI, the Alde-Ore and Butley Estuaries SAC to the south and further smaller SSSI. It is also adjacent to Great Wood, which is an ancient woodland.
- 1.51 Given the location and scale of the project alone, and in combination with other projects, it appears highly unlikely that NGET would be able to eliminate the significant adverse impacts on the AONB, given the elevation of the site relative to the AONB to the south and east.
- 1.52 Additionally, the impacts of a succession of construction projects at this site, and their operation, which would be required to achieve coordination with Nautilus and Eurolink would be unacceptable.

Converter Station Site 3 (Saxmundham)

- 1.53 Converter Station Site 3 is located on land to the north and east of Bloomfield's Covert on the eastern boundary of the small town of Saxmundham.
- 1.54 The site is open arable land, from which historical landscape features are absent. Before agricultural improvement works were undertaken after 1945, the site had a locally characteristic field pattern and included a substantial Ancient Woodland known as Great Wood, ponds, and a small plantation typical of the Ancient Estate Clavlands landscape type. Currently, the landscape is generally open and therefore a converter station would be prominent from the B119.
- 1.55 There are a number of listed buildings in the vicinity of the site, including Wood Farmhouse and Hill Farmhouse, both of which are Grade II Listed. The development would potentially cause a detrimental impact to their setting.
- 1.56 The site is constrained with regards to access due to the road network around the area with the B1119 being generally unsuitable for construction and subsequent operational traffic. A temporary haul road would potentially be required for construction traffic to access the site.

Other Sites that should be considered (Theberton/Leiston Airfield)

- 1.57 It is noted that the Leiston airfield site at Theberton, which has been put forward as a potential Converter Station site for the National Grid Ventures scheme, Euro Link (also under non-statutory consultation) has not been considered as an option for Sea Link at this stage.
- 1.58 It is not clear why Sea Link did not put this site forward as an option whereas Eurolink did. Not least in the interests of potential coordination with the Eurolink scheme, in SCC view, this site should further be considered in addition to those proposed in the consultation material.

Proposed Landfall Sites

- 1.59 Both landfall sites are situated within favourable locations for archaeological activity from all periods, but have never been subject to any investigations, so the full potential is currently unknown.
- 1.60 Whichever landfall site which is chosen would require early full archaeological assessment.

“Emerging Preference” Between Thorpeness and Aldeburgh

- 1.61 This landfall site is located within the Heritage Coast, Suffolk Coast and Heath ANOB and is close to the Sandlings SPA and the Leiston-Aldeburgh SSSI. The site also has high potential archaeological potential. The site is constrained due to access due to the surrounding roads being unsuitable for construction traffic and would also require a new access along the B1122. Hence it is a challenging site, and potential impacts need to be fully assessed.

“Alternative Location” at Sizewell

- 1.62 The landfall site is within the Heritage Coast, Suffolk Coasts and Heaths AONB and could impact upon the Sandlings Special Protection Area and Leiston-Aldeburgh SSSI and the Suffolk Shingle Beaches County Wildlife Site (CWS).
- 1.63 SCC would not support landfall at this location as the site is highly constrained and would not be able to achieve coordination with other schemes in the area, as SCC understands from the consultation material that there is only being space for one cable route in the area proposed due to its proximity to the permitted Sizewell C nuclear power station. The works would also overlap construction operations of Sizewell C and would likely cause significant disruption to the local road network.

Proposed Cable Routes

- 1.64 As a principle, cable corridors should avoid, or minimise temporary and permanent loss of trees, hedgerows, woodland, and other landscape features including historic landscape character and wildlife.
- 1.65 All of the proposed cable routes are situated within locations which are favourable for archaeological activity from all periods, however, the majority have never received any archaeological investigation, so the full potential is currently

unknown. Therefore, whichever option is selected would require early, full archaeological assessment.

Site 1 and 3 Emerging Preferences

1.66 The emerging preference for a cable route from the landfall between Aldeburgh and Thorpeness begins within the Heritage Coast, Suffolk Coast and Heaths AONB and is close to the Sandlings SPA. The construction of the cable route would affect the Sandlings Walk in several places, as well as other connected footpaths.

1.67 The routes are ecologically sensitive, including wetlands, shingle vegetation and lowland heath which support a variety of bird species such as woodlark, nightjar, nightjar and nightingale and proposals are likely to impact local flora and fauna.

Site 1 and 3 Alternative Routes

1.68 Routes which have a landfall at Sizewell would not be considered acceptable by SCC due to the inability to achieve coordination with other projects within the area due to the lack of sufficient area to house more than one project.

1.69 This landfall would also create considerable construction difficulties due to the overlap with Sizewell C Nuclear Power Station and the cumulative impacts this would create on the surrounding communities.

2 Appendix A – Detailed Technical Comments

Introduction

2.1 Suffolk County Council has gathered technical comments from internal departments in response to the Sea Link Non-Statutory consultation.

2.2 The full list of technical comments is as follows: -

3. Archaeology
4. Corporate Property
5. Ecology
6. Lead Local Flood Authority
7. Highways
8. Landscape and Visual
9. Public Rights of Way
10. Socioeconomic

3 Archaeology

- 3.1 The archaeological implications of multiple schemes in this landscape are cumulatively increasing for every project and SCC notes that possibilities for co-location of elements of this scheme with the Eurolink project are being explored which would increase impacts. Although SCC would generally see a benefit in this coordination, this does have the potential to reduce the flexibility to be able to avoid significant archaeology which has yet to be defined.
- 3.2 The results from other projects are also showing that there is an enormous amount of important archaeology surviving in this landscape, which SCC previously knew nothing about (and some of the proposed areas for this scheme fall within busy geophysics areas which the ScottishPower Renewables project, East Anglia 1 North and 2 (EA1N/2) had avoided, but adjacent to areas where the trenches identified extensive archaeology). The potential for extensive and as yet unknown archaeological is not adequately recognised by the scoping documentation and current proposals for assessment are not sufficient to fully understand the archaeological impacts of proposals and to enable informed decisions to be made. As such, the need for early, full assessment (geophysics, earthwork survey AND trial trenching) is becoming increasingly more important for every scheme (to inform the finalisation of the scheme routing/design) and has the potential to become a point of objection if not undertaken by the start of the examination.
- 3.3 The opportunity for early coordination of both Sea Link and Eurolink projects in terms of archaeological assessment should also be explored as there would appear to be potential for a joined-up approach e.g. geophysical survey of a wider area which would encompass both schemes to allow early considerations of archaeological impacts as scheme design is finalised for both projects (and to make sure that both schemes could be accommodated within an area with enough flexibility to protect any archaeological remains of high significance which are defined e.g. should preservation in situ be appropriate).
- 3.4 In addition, although no longer a preferred option, the alternative cable corridor which followed the route of the EA1N/2 cable route would cause concern given that sensitive archaeological areas which have been avoided entirely or have been routed around as part of embedded mitigation, are now situated within the option area for this scheme. Because of the restrictions caused by the other projects, there will be less opportunity for micro-siting to avoid any remains of high significance which are defined, or if preservation in situ is appropriate. Again, early archaeological assessment would be critical if plans revert to this being the preferred option.

General Comments

- 3.5 The longer the cable routes, the greater the potential archaeological impacts and the scale and scope of investigation and mitigation. Where cables pass through watercourses there is potential for well-preserved stratified sites in and on the valley sides as well as paleoenvironmental remains.

It is essential that further refinement of the siting/routing methodology should include a search of the HER/Desk-Based Assessment and should consider the impact of the proposed development on designated and non-designated heritage assets and sites of archaeological potential, drawing on landscape and topography. Attention should also be given to assessing the relative importance of any World War 2 remains in relation to the defensive coast.

- 3.6 Given the interaction with the EA1N/2 scheme and also potentially Sizewell, Galloper and Greater Gabbard depending upon the design options which are selected, there is a need to include the results from these projects within assessments, especially for those areas where the schemes overlap or are in close proximity, given the results directly relate to the archaeological potential of this scheme. The EA1N/2 geophysical survey data and some of the Sizewell geophysics and trial trenching results are publicly available as part of the relevant examinations and the County Historic Environment Record (HER) hold report for the Galloper and Greater Gabbard projects – SCCAS is able to advise on the findings where reports are not yet available. These surveys illustrate how much information is added to HER data through systematic survey, realising archaeological potential, as a significant number of archaeological sites have been defined which were not previously recorded on the County HER, or associated with finds scatter or cropmark evidence.
- 3.7 There should not be an assumption that data within the HER is of local significance. The HER includes non-designated assets of national importance and regionally significant assets. Sites of archaeological potential which have not yet been subject to systematic assessment (and are therefore currently of unknown significance) should also be considered.
- 3.8 The current onshore study areas have in most parts not been subject to systematic archaeological investigation and, therefore, the character, extent, and significance of surviving above and below ground heritage assets across this area has yet to be defined. There is high potential for additional, and to date unknown, significant heritage assets to survive across much of this area. Some of these may be of national significance and worthy of *preservation in situ*. As such without further assessment to fully characterise the heritage resource, the impacts of the development upon above and below ground heritage assets cannot be fully understood.
- 3.9 All onshore elements of the scheme (for example, landfall sites, converter station sites, grid connection substation site, underground cable corridors, jointing bays, link boxes, Horizontal Directional Drilling (HDD) pits and any other impacts associated with the scheme for example, haul roads, compounds, planting and ecological mitigation, offsite transport improvements etc.) have the potential to damage or destroy any surviving archaeological remains so all elements of the scheme should be scoped in for archaeological assessment.
- 3.10 Decommissioning work also has the potential to have an impact, but this is not currently recognised within the scoping documentation (table 2.41). The document states that works would have no impact as all archaeological remains

will have been mitigated and removed, however, this overlooks the potential for remains which are being preserved in situ and therefore need to be protected from disturbance throughout all phases (including during any maintenance works).

- 3.11 Also, the compounds associated with this work also have the potential to impact upon below ground remains if located in areas which have not already been subject to archaeological mitigation.

Further Assessment Required

- 3.12 To inform the siting and routing of the proposed scheme, a thorough desk top assessment and field evaluation is needed to allow the archaeological potential of the different parts of the study area, and therefore the likely impacts of the proposed development, to be fully assessed. Evaluation will provide sufficient baseline information to enable design decisions to be made and to inform planning decisions.
- 3.13 A desk-based assessment would be appropriate in the first instance. This should include a historic map regression, a study of aerial photography (including historical imagery), an assessment of LIDAR data, and predictive modelling of potential based upon topographic and geological evidence. Datasets held by the County Records office and other archive sources may also need to be consulted where features merit more detailed research.
- 3.14 A settings impact assessment for above ground heritage assets should be undertaken and the impact of the proposals upon historic hedgerows, boundaries and other historic landscape elements should also be considered through the use of historic mapping and Historic Landscape Characterisation data.
- 3.15 Landscape should be considered for assessment as an aspect of the historic environment. There will be interrelationships in assessment between archaeological and the built environment. The lack of a holistic approach to assessing the impact on landscape has given rise to omissions in other recent DCO applications.
- 3.16 Earthwork survey and building assessment should be undertaken of upstanding remains, particularly Second World War remains, to properly assess their significance in the context of the defensive coast.
- 3.17 All areas which will be impacted upon by the different elements of the scheme should be subject to archaeological field assessment at this stage in considering the location, layout and design of the landfall, converter station site, grid connection substation site, cable route, jointing bays, link boxes and HDD pits to allow for *preservation in situ* where appropriate of any sites of importance that might be defined (and which are currently unknown).
- 3.18 Geophysical survey (a combination of magnetometry and resistivity as appropriate), also accompanied by fieldwalking and a metal detecting survey, should form a first phase of field evaluation.

- 3.19 The results of these assessments should be used to then inform a programme of trial trenched evaluation, combined with paleoenvironmental assessment in river valley areas.
- 3.20 SCC advises that all sites which will be impacted on by any element of the onshore works should be subject a full suite of archaeological assessment (desk-based, geophysical, fieldwalking/metal detecting and trial trenched evaluation) prior to/at EIA stage, with assessment used to inform final site selection/routing. Undertaking full archaeological evaluation at this stage will enable the results of the surveys to be used to assist with project programming and to contribute to risk management. Upfront work will ensure all options can be properly considered and the scope of mitigation defined (including giving proper thought to *preservation in situ* and alternative solutions), avoiding unexpected costs and delays post-consent. It will test the suitability of sites for development, given the reduced flexibility for mitigation through design once a location for landfall, converter station site, grid connection substation site, cable route, jointing bays, link boxes and HDD pits have been selected and as a result of restrictions caused by other schemes in this area. Early work will also enable archaeological work to be designed alongside other elements of the scheme, e.g. working in archaeological work with ecological work, or informing spoil and dust management.
- 3.21 The combined results of the above assessments should then be used to develop a mitigation strategy. Some areas (yet unidentified) may require localised *preservation in situ* where appropriate. For surviving below ground archaeological heritage assets, where (1) development impacts are proposed that will damage or destroy remains and (2) where mitigation through recording is considered acceptable, the resultant mitigation included should include proposals to record and advance understanding of the significance of heritage assets before they are damaged or destroyed. Appropriate mitigation techniques, such as excavation prior to development, will be based upon the results of the suite of evaluation and assessment work undertaken. Proposals for outreach and enhanced public understanding as part of this mitigation work must also be included.
- 3.22 All phases of archaeological evaluation and mitigation must be led by a brief produced by SCCAS and subject to detailed Written Scheme of Investigations, which must be agreed with SCCAS. All stages of the work will be monitored by SCCAS on behalf of the relevant discharging authority in accordance with the DCO to ensure the written schemes are satisfactorily fulfilled.
- 3.23 Any ongoing works during site operation must not take place within any areas where archaeological remains have been *preserved in situ* as part of archaeological mitigation strategies. If any areas of archaeology are to be *preserved in situ*, then a strategy for ongoing protection of these remains throughout construction, operation and in perpetuity must be agreed and included within the mitigation strategy for the development and provision must be made for a detailed management plan.

- 3.24 As has been shown by other Nationally Significant Infrastructure Projects in the region time will be a critical factor. Archaeological and heritage assessments and mitigation phases should be programmed into the project at the earliest opportunity, with sufficient time allowed to enable evaluations to be undertaken (e.g. taking into account agricultural cycles and commencing landowner negotiations at the earliest opportunity) and also fieldwork to be completed prior to the start of construction works, so as to avoid any delays to the development schedule. SCC would advise that an archaeological consultant is bought on board early on.
- 3.25 Several large projects in the area at a given time (which is likely given the timeframes of other schemes) may put pressure on available archaeological work forces which is something to be aware of.

Friston Substation

- 3.26 This is situated within an area which has been subject to geophysical survey and trial trenching as part of the EA1N/EA2 project and this assessment work has defined multi-period archaeological remains requiring mitigation.

Converter Station Site 1

- 3.27 This site is within a location topographically favourable for archaeological activity from all periods, situated on light, sandy soils and close to watercourses. The site, however, has never been subject to any systematic archaeological investigation and so the full archaeological potential is currently unknown.
- 3.28 The site contains part of the former extent of Hazlewood Aerodrome (FRS 017) a WWI military training site and adjacent to the preferred site itself is an extant area of ancient woodland (Great Wood) which would need to be retained and disturbance to any associated earthwork features should be avoided. An earthwork assessment for this area would be appropriate to establish whether any military features still survive and as wood banks are recorded.
- 3.29 'Multi period finds scatter' are recorded within the vicinity and trial trenching as part of the section of the EA1N/EA2 scheme to the north has recorded extensive, multi-period archaeological remains requiring mitigation, with geophysical survey indicating that further remains continue within the wider area. A small section of the converter station site (land west of East Barn Cottage) was included within the survey area and a road frontage site has been identified adjacent to Snape Road, alongside other anomalies of archaeological interest.

Converter Station Site 3

- 3.30 This site has not previously been subject to any archaeological assessment, so the archaeological potential is unknown at present. The site of former ancient woodland is recorded within this area (SXM 009).

Preferred Cable Corridors/Landfall

- 3.31 The preferred landfall/cable routes are situated within a location favourable for archaeological activity from all periods, on light, sandy soils and close to watercourses. The landfall sites and the majority of all the cable corridor option

have, however, never been subject to any systematic archaeological investigation and so the full archaeological potential is currently unknown. The landfall area and entire cable route for whichever option is selected therefore requires full, early archaeological assessment.

HVAC Cable Emerging Preference to Site 1

- 3.32 Large parts around the Friston substation area have been subject to geophysical survey and trial trenching as part of the EA1N/EA2 project and this assessment work has defined multi-period archaeological remains requiring mitigation. Further assessment work is necessary for any areas not previously included within the work undertaken as part of the EA1N/EA2 scheme.
- 3.33 Trial trenching as part of the section of the EA1N/EA2 scheme which falls within the proposed cable route for the current scheme has recorded extensive, multi-period archaeological remains requiring mitigation, with geophysical survey and multi-period find scatters indicating that further remains continue within the wider area, with a number of features of particular interest already defined with the preferred cable corridor. Early assessment is needed for these features. Much of this route has been designed to avoid more extensive and complex anomalies shown on geophysical survey, but as the proposed cable route would pass through these features, they need testing through trial trenching to inform significance/preservation, with the completion of geophysical survey to fill in any gaps.
- 3.34 Grove Wood is an area of ancient woodland associated with earthwork features and so would need to be subject to an earthwork assessment.

HVDC Cable "Emerging Preference" to Site 1

Landfall

- 3.35 The northern part of the search area is not a landfall location favoured by the SCC Archaeological Service (SCCAS) as this site lies within 'The Mear' recorded from the 16th century (ADB 160), historically a turbary/natural harbour (Thorpe Haven, or Almouth). The potential for buried and organic (including wooden) remains is high in this area. Wetland archaeology is relevant here, albeit impacted by peat cutting and later WW2 anti-aircraft defences. Early assessment would therefore be necessary. The remains of a smock mill also survive within this area (ADB 017) and would need to be preserved in situ.
- 3.36 Across the rest of the area, various WWII features are recorded in this area (ADB 063, 064, 066, 067, 068 103) and therefore appropriate above ground surveys, alongside below ground assessment, would also be appropriate in this area.

Cable Route

- 3.37 The section of the cable corridor to the north of Aldeburgh would have no option but to pass through one of a number of very sensitive archaeological sites, including Gorse Hill, where multiple Roman cremations were recorded, alongside a large number of pottery and other finds, also associated with prehistoric and medieval finds (ADB 004, 008, 009, 010, 014) and cropmark features (ABD 202,

203). To the south of Gorse Hill, the site of a medieval market is recorded (ADB 239), situated within an area where extensive cropmarks (ADB 006) and a large number of multi-period finds have been recorded (ADB 006, 172). Full, early assessment is advised to inform siting decisions and considerations of significance/preservation in situ.

- 3.38 Across the north and south warren area, multi-period finds scatters, cropmarks and military sites are recorded (ADB 015, 034, 039, 163, 201, 223, 263) with the potential for well-preserved remains to survive in these areas which are not under intensive agriculture.
- 3.39 The route passes close to the site of the ruined Hazlewood Church (ADB 005), associated with a large number of multi-period finds (ADB 164, 223, 261). As such there is potential for associated remains to survive within the cable corridor route. To the east of Chapel Farm, a cropmark enclosure is recorded (FRS 014).
- 3.40 The route contains part of the former extent of Hazlewood Aerodrome (FRS 017) a WWI military training site and an extant area of ancient woodland (Great Wood) which would need to be retained and disturbance to any associated earthwork features should be avoided. An earthwork assessment for these areas would be appropriate to establish whether any military features still survive and as wood banks are recorded.

HVAC Cable Emerging Preference to Site 3

(and Northwest section of HVDC cable to Site 3)

- 3.41 Large parts of the Friston substation area have been subject to geophysical survey and trial trenching as part of the EA1N/EA2 project and this assessment work has defined multi-period archaeological remains requiring mitigation. Further assessment work is necessary for any areas not previously included within the work undertaken as part of the EA1N/EA2 scheme.
- 3.42 This section of the route includes part of Friston Moor and there is a potential for medieval green edge activity surrounding this. A medieval moated site (KND 011) situated adjacent to the moor falls within the cable corridor, but SCCAS would advise that this should be excluded from any planned works. Also bordering Friston moor and within the cable corridors is the site of a demolished farmstead (KND 015) and a medieval enclosure (KND 014).
- 3.43 The site of a former brickworks is believed to be located somewhere within this section of the cable corridor (KND 016) and a further enclosure (SNF 013) and decoy pond (SNF 002) are also recorded.

HVDC Cable Emerging Preference to Site 3

- 3.44 Comments for the section between landfall and Snape road are the same as above for the HVAC Cable Emerging Preference to Site 3, although the route does include part of the area of the site of the ruined Hazlewood Church (ADB 005) and SCC would not support any works within this area given the high significance of this site and would advise that this area should be removed from the scope of areas being considered as scheme options entirely.

- 3.45 Between Snape Road and School Road, trial trenching as part of the section of the EA1N/EA2 scheme which falls within the proposed cable route for the current scheme has recorded extensive, multi-period archaeological remains requiring mitigation, with geophysical survey and multi-period find scatters indicating that further remains continue within the wider area, with a number of features of particular interest already defined with the preferred cable corridor. Early assessment is needed for these features. Much of this route has been designed to avoid more extensive and complex anomalies shown on geophysical survey but as the proposed cable route would pass through these features, they need testing through trial trenching to inform significance/preservation, with the completion of geophysical survey to fill in any gaps.
- 3.46 The route in this area passes through the site of a windmill (KND 017) which has been clearly located within the EA1N/EA2 geophysical survey and the sections of the corridor close located close to the Hundred river have potential for waterlogged or paleoenvironmental remains.

Alternative Cable Route to Site 1

- 3.47 The alternative landfall/cable route is also situated within a location favourable for archaeological activity from all periods, on light, sandy soils and close to watercourses. The landfall site and large areas of the cable route has, however, never been subject to any systematic archaeological investigation and so the full archaeological potential is currently unknown. The landfall area and entire cable route therefore requires full archaeological assessment.
- 3.48 Landfall World War II remains are recorded within this site (LCS 113, 116, 129) and multi-period archaeology has been recorded in the vicinity during trial trenching along the EA1N/EA2 cable route in this area and as part of the Sizewell, Galloper and Greater Gabbard projects.

Cable Route

- 3.49 Medieval settlement has been recorded during archaeological works to the north of Sizewell Gap Road (LCS 148, 150 and 219) and within Broom covert, the scheme passes through an area where a number of finds scatters and cropmark sites are also recorded, as well as military remains. On the Galloper site to the east, prehistoric and Roman archaeology was recorded, including a number of cremations (LCS 161).
- 3.50 To the south of this and for a large proportion of the corridor to the east of Aldringham, the route interacts with the EA1N/EA2 cable corridor where multi-period archaeological sites (requiring mitigation) have been recorded during geophysical survey and trial trenched evaluation as well as earthwork remains. Areas which have not yet been subject to archaeological evaluation along this section of the cable route are therefore likely to also contain multi-period archaeological remain, as indicated by geophysical survey which shows anomalies continuing within the wider area of the EA1N/EA2 corridor. Extensive, previously unknown, archaeological remains have been recorded as part of this work, including significant Saxon and Roman sites. Much of this route has been designed to avoid more extensive and complex anomalies shown on geophysical

survey but as the proposed cable route would pass through these features, they need testing through trial trenching to inform significance/preservation, with the completion of geophysical survey to fill in any gaps.

- 3.51 To the south of Red House Lane, the route passes through an area where prehistoric activity, including cremations, has been recorded (LCS 218) and therefore further assessment and mitigation would be required.
- 3.52 A group of Scheduled barrows are present on Aldringham Green, and no ground disturbance would be allowed on or within the immediate vicinity of these features. There is high potential for further barrows and related sites in the vicinity, as well as medieval green edge activity, as supported by the discovery of extensive and complex medieval archaeology (requiring mitigation) opposite Raidsend within trenching works for the EA1N/EA2 project.
- 3.53 The pinch point at Hundred River/B1122 coincides with the EA1N/EA2 order limit and so there are constraints in this area.
- 3.54 Where the route crosses the Hundred River and watercourses there is higher potential and HDD sites could also impact. There is also a potential for waterlogged and paleoenvironmental remains in the Hundred River Valley.
- 3.55 To the west of Aldringham, much of this part of this corridor again interacts with areas investigated as part of the EA1N/EA2 scheme. Extensive, previously unknown, archaeological remains have been recorded as part of this work (requiring mitigation), including significant Saxon, prehistoric and medieval sites. Much of this route has been designed to avoid more extensive and complex anomalies shown on geophysical survey (including a probable funerary monument), but as the proposed cable route would pass through these features, they need testing through trial trenching to inform significance/preservation, with the completion of geophysical survey to fill in any gaps.

Alternative Cable Route to Site 3 (Option 1)

- 3.56 The alternative landfall/cable route is also situated within a location favourable for archaeological activity from all periods, on light, sandy soils and close to watercourses. The landfall site and large areas of the cable route has, however, never been subject to any systematic archaeological investigation and so the full archaeological potential is currently unknown. The landfall area and entire cable route therefore requires full archaeological assessment.
- 3.57 Comments with regards to landfall and the eastern section of the corridor either side of Sizewell Gap Road are as per the alternative cable route to Site 1 notes above.
- 3.58 The section of the scheme which passes through marshland has potential to impact upon waterlogged and organic remains, including wooden structures etc.
- 3.59 Within Broom covert, the scheme passes through an area which has been subject to geophysical survey for Sizewell C (LCS 233, 280), which suggests medieval settlement. Within this area, a number of finds scatters and cropmark sites are also recorded, as well as military remains. On the Galloper site to the

east, prehistoric and Roman archaeology was recorded, including a number of cremations (LCS 161).

- 3.60 Part of this route would interact with areas of the Sizewell Green Rail route, Big Field and Main development Site which is likely to cause issues. These areas have been subject to geophysical survey and trial trenching which has defined extensive multi-period archaeology, including human remains.
- 3.61 There is particularly high sensitivity directly over the floodplain and south of Lover's Lane – a possible group of three barrows survive as cropmarks in this area, medieval, roman, and prehistoric sites and finds area recorded and topographically this is favourable for archaeological activity from all periods.
- 3.62 The proximity of the proposed route to the Scheduled Leiston Abbey site is likely to cause concern and Historic England advice needs to be sought as to the viability of proposals within this area
- 3.63 At Theberton, the route passes through the area of a Second World War Airfield (THB 015) and there is potential for above and below ground remains associated with this site, including structures. A walkover survey would be appropriate in this area. Within this area a series of cropmark sites are also recorded (THB 018, 023 and 024) which would require further assessment.

Alternative Cable Route to Site 3 (Option 2)

- 3.64 Comments regarding this route already provided in relation to the site 1 corridor preference and alternative options and site 3 preference corridor.

4 Corporate Property

4.1 SCC Corporate Property have checked the non-highway property records and believe the following SCC properties are potentially affected by the Sea Link proposals: -

- Coldfair Green Primary School, Knodishall (Site 1 and Site 3 Emerging Preference)
- Alde Valley Academy, Leiston (Site 1 Alternative and Site 3 Alternative Option 2))
- Leiston HWRC (Site 3 Alternative Option 1)
- Southwold Former Fire Station
- Middleton Causeway Farm

4.2 The impact and necessary mitigation to these sites can only be established when there is greater detail. The schools only appear to have playing fields within the areas proposed.

5 Ecology

General Comments

- 5.1 The ecological information provided with this consultation is limited and does not include comprehensive biodiversity data, hence the response is at a high level. It is noted though that any option has significant ecological challenges.
- 5.2 There are a notable number of NSIP scale projects in the vicinity. The applicant will need to consider in detail the in-combination effects with these NSIPs, including how this project impacts upon other NSIP's proposed mitigation, compensation, and enhancement measures, and in-combination impacts with regard to displaced wildlife due to disturbance from other projects. SCC considers that the applicant's ecological specialists need to work closely with the other project's ecologists around the interaction of impacts on wildlife and habitats.
- 5.3 Assessments need to consider how this project impacts upon the Conservation Objectives of nearby European Designated Sites, and on other designated sites such as Sites of Special Scientific Interest (SSSIs) and County Wildlife Sites (CWSs).
- 5.4 The proposal anticipates cutting through the RSPB's North Warren Reserve. This has the potential to impact upon thousands of Wildfowl (Ducks, Geese and Swans) that over-winter here as well as breeding Bittern, Marsh Harrier, Woodlark and Nightingales. This needs to be fully assessed and considered following the Mitigation Hierarchy.

Site Specific ecological comments

- 5.5 In the absence of the essential biodiversity data (which was only commenced in May 2022), it is not possible to make anything other than general statements about those sites being given preference by the Applicant.

Converter Station Sites

- 5.6 Site 3 (East of Saxmundham) is a large arable field and hence its wildlife interest may be more limited, although this would be subject to survey results.
- 5.7 Site 1, West of Aldeburgh was much more difficult for SCC officers to assess from the ground from publicly accessible locations. There are Coverts, dead ground, and more dynamic topography here so ecological surveys are required to comment on the ecological value of the site.
- 5.8 For either of the converter station sites, good design could reduce the ecological impact, for example, using green walls and green roofs for the converter station buildings, or treating the areas around the cables and poles within compounds with, e.g., mosses and lichens.

Cable Corridor

- 5.9 The working corridor S1 is proposed to cut through an area of exceptional importance to wildlife (an RSPB Reserve and SSSI) and, without a much fuller understanding of the techniques and mitigation(s) being used, SCC can only

raise considerable concerns, including about disturbance, loss of and sterilisation of habitat. As with the Converter Station Sites, in the absence of ecological data and the fullest mitigation and compensation strategies, the impact on wildlife cannot yet be established.

- 5.10 The working corridor S3 is vague in detail, so again, the likely ecological harm cannot yet be established.
- 5.11 Landfall for either of the corridors will be through Coastal Vegetated Shingle, a Suffolk Priority Habitat (hence the designation of so much of this part of the coast as County Wildlife Site). The applicant needs to provide full proposals on how impacts on this habitat are to be minimised and mitigated.
- 5.12 For both the Converter Station Site(s) and the Working Corridors, SCC will require data full assessment together with meaningful site walkovers to be able to form an opinion on the ecological impacts.

SCC raises concern that these routes have been chosen by aerial photography and some maps rather than fully informed by walkovers by ecological specialists. Despite the number of developments in the area, SCC expresses justifiable concern that choices are being made by aerial photos rather than thorough site investigations.

6 Lead Local Flood Authority (LLFA)

Flood Risk

- 6.1 The documents appear to have assessed both Flood Zones 2 and 3 when identifying potential converter station sites and cable corridors. This is shown in the 'Sea Link Corridor and Preliminary Routeing and Siting Study.'
- 6.2 NPS EN-1 only references assessment of Flood Zones 2 & 3 as part of the Sequential and Exception Test. This aligned with the old National Planning Policy Framework (NPPF) which was superseded in July 2021 and the current NPPF now requires '*all sources of flood risk and the current and future impacts of climate change*' to be considered as part of the Sequential and Exception Tests. This is further supported by updates to the National Planning Practice Guidance (NPPG) for Flood Risk and Coastal Change in August 2022. As such, all sources of flood risk should be considered as part of the site selection process, with the Sequential & Exception Tests being undertaken for sites where any source of flood risk is identified.
- 6.3 For the avoidance of doubt, SCC Lead Local Flood Authority (LLFA) advises Applicants to use the Environment Agency National Mapping, in the absence of site-specific modelling. When using this information, areas of high, medium, and low risk should be considered. Low risk illustrates predicted surface water flood risk for the 1% - 0.1% event. However, in the absence of modelling which accounts for the impacts of climate change, SCC LLFA recommends using the low-risk scenario as a proxy for the 1%+CC scenario.
- 6.4 It has not been demonstrated that all sources of flood risk, including allowances for the current and future impacts of climate change, have been considered as part of the site selection and cable corridor selection process.

Cable Corridor sections – drainage and flood risk

- 6.5 Indicative sections are shown for cable corridors on pages 60 & 62 of the '*Sea Link Project background document*'. The position of the 'temporary drains' and 'drainage channels' would suggest they are designed to deal with runoff from the topsoil and subsoil storage. It does not appear consideration has been given to the space requirements for drainage of the cable corridor itself, including haul road. These 'active' areas will generate surface water runoff and potential pollutants, such as suspended sediment, due to the nature of construction activities. This surface water will need to be captured, treated, and discharged to manage water quantity and quality.
- 6.6 Surface water flow routes which are intercepted by proposed cable corridors have not been assessed. It is therefore not clear if the proposed cable route and associated stockpiles will intercept and potentially divert surface water flow paths, which has the impact to increase offsite flood risk.

Climate change

- 6.7 In accordance with current national guidance, SCC LLFA expects an increase in rainfall intensity of 45% to be used for assessment of surface water drainage

Friston sub-station

- 6.8 The extent of works required at the Friston sub-station has not been stated nor has any assessment been undertaken. It is acknowledged that it will be difficult to assess the impacts of proposed works at Friston given the baseline may change between now and examination/construction of this project, due to other consented projects. However, this location is particularly sensitive in terms of surface water flood risk given the existing flood risk to downstream receptors and therefore it must be adequately assessed. It must also be scoped in for assessment of flood risk, both during construction and operation.
- 6.9 SCC LLFA would like to highlight that the surface water infrastructure required for the consented National Grid Substation and Scottish Power Renewables Projects may limit the space for works to the National Grid Substation. Changes to this mitigation infrastructure should be avoided wherever possible.

Converter Station Site 1

- 6.10 An assessment of all sources of flood risk should be undertaken, including allowances for current and future climate change.
- 6.11 Areas of surface water flood risk appear to be present within this site location.
- 6.12 Opportunities may exist at this location to re-use surface water runoff from the converter station for irrigation of arable farmland, as the site is directly adjacent an existing reservoir. This would need to be explored further at a later date. SPZ 3.

Converter Station Site 3

- 6.13 An assessment of all sources of flood risk should be undertaken, including allowances for current and future climate change.
- 6.14 Areas of surface water flood risk appear to be present within this site location.

7 Highways

Availability of Information

7.1 As referred to previously in this response, NGET will be aware that a number of recent NSIPs have been submitted and given consent for the local area. Most notably:

- The Sizewell C Project:
<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/the-sizewell-c-project/>
- East Anglia One North Offshore Windfarm
<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/east-anglia-one-north-offshore-windfarm/>
- East Anglia Two Offshore Windfarm
<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/east-anglia-two-offshore-windfarm/>

7.2 A large amount of information and data is available from these projects, and this should be considered as part of the development of the NGET proposals. SCC considers that NGET needs to work in close collaboration with SPR, Sizewell C Co., East Suffolk Council and Suffolk County Council. The Sizewell C project in particular contains a significant amount of new or improved transport infrastructure that, if the project is completed, will provide more suitable access in the north parts of Suffolk being considered by Sea Link.

7.3 As set out in the consultation documentation, NGET are also aware of proposals associated with Euro Link and Nautilus HVDC projects and have considered options for a coordinated approach to the sites. NGET should continue discussions with these projects to minimise highway impacts on the local communities, such as requirements for materials and associated HGV movements, workforce numbers and traffic management on the highway network. All efforts should be made to reduce traffic impacts via a coordinated approach to site location.

7.4 As no information is provided on vehicle or construction workforce forecasts, nor on exactly how traffic movements may be reduced through the use of haul roads, the ability for SCC to comment is limited and so SCC's position on impacts at locations may be subject to change.

General Comments

Assessment Methodology

7.5 As set out above, a considerable amount of work on traffic impacts has already been undertaken for the local area, and due regards should be paid to the impacts identified within any assessment NGET undertakes, including the potential for cumulative and contiguous impacts and appropriate assessment scenarios. Given the complexity of the impacts in the area (e.g. a number of different projects with different timings for mitigation) assessment scenarios should be agreed with the relevant authorities to ensure impacts are captured.

The contiguous impacts SCC considers relevant are the repeated closure or diversion of public highways including public rights of way and the increased duration of the impacts that residents, businesses, and highway users will endure as each NSIP follows the previous one with a constrained geographical area.

- 7.6 Consideration should be given to the assessment methodology for environmental effects, as set out in the Sizewell C Project 'Fourth Environmental Statement Addendum' [REP7-030] and [REP7-032], which was agreed between SZC Co. and SCC, including categorisation of links and magnitude of impacts. Consideration should also be given to the scope of the assessed network as part of the East Anglia Projects.
- 7.7 As part of any submission, a Transport Assessment and a separate Environmental Assessment of road traffic should be submitted. SCC considers that early consultation with SCC as the Local Highway Authority to determine the scope of such an assessment will be of benefit to the Applicant.
- 7.8 Discussions will be needed over issues around traffic forecasting and the reliability of current traffic data due to Pandemic and Post Pandemic traffic volumes.
- 7.9 Assessment of the impacts on Public Rights of Way (PRoW) should be treated as a specific topic area rather than encompassed within landscaping, social economic or transport sections. This enables a full appreciate of the impacts on the PRoW to be evaluated.

Workforce

- 7.10 The applicant should bear in mind that due to the number and scale of projects in the area, the availability of the workforce is likely to be limited, and any assumptions around workforce origins would affect the development's traffic impacts (see also socio-economic section elsewhere in this response). It is important to agree the method for assessing these effects early in the project.
- 7.11 The proposed timings of this project places delivery close to the peak of the Sizewell C construction work force (2028). Hence, there will be considerable pressure on securing workers for these energy projects. It is likely that the demand will require robust assumptions to be made in the workforce assessment model such as distances workers will travel. This, the relatively limited public transport provision in East Suffolk and location of project elements away from towns will provide a challenge to delivering a Travel Plan to facilitate sustainable travel patterns. Without some innovative measures it is likely that the result will be more, longer journeys by local workers on the local transport network. This needs to be further assessed and mitigated.
- 7.12 The SPR and Sizewell Projects relied heavily on data from the 2011 census although it was recognised at the time that this data was dated and hence treated with caution. All data should be as recent as practical and where assumptions are made these are clearly explained and where possible evidenced. SCC advises that NGET should rely on data from the most recent census held in 2021.

Pre-commencement

7.13 Most NSIPs provide exemptions in the form of permitted works that can occur before commencement of the project. Typically, this includes site investigations, archaeology, and some elements of site clearance. As management plans typically only operate from commencement this has caused issues controlling transport impacts during these pre-commencement works with resultant complaints from local residents. The NGET should be mindful of this when considering the structure and implementation of plans, or for example if pre-commencement works should have separate management plans, as in EA1(N).

Reducing Disruption

7.14 NGET will need to give strong consideration how to minimise disruption for the local communities; the proposed cable corridors might share its route with other projects and so, again, any options to minimise impacts on the local communities and the highway network need to be fully considered, including where appropriate the use of a haul route along the corridor.

7.15 Due regards should be paid to the Management Plans and Travel Plans submitted as part of the Sizewell C and East Anglia Projects above, as these will give an indication of the expected management measures, controls, and monitoring for managing freight and workforce traffic to be included within relevant management plans. Where NSIPs overlap this should include measures to coordinate these with other developers so that cumulative impacts are minimised.

Traffic Impacts

7.16 SCC will need to understand impacts associated with all traffic during construction, operation, maintenance, and decommissioning, including freight and workforce movements, and the profile of traffic movements. In accordance with national planning guidance, consideration must be given to achieving as sustainable a transport strategy as possible.

7.17 Due regards should be paid to those areas where mitigation has been identified for the other projects in the locality referred to above, including the potential for complementary mitigation to these schemes.

7.18 Particular key areas of concern that should be considered on the local highway network are:

- Additional traffic through Leiston, Coldfair Green, Knodishall and Aldringham (B1069).
- Additional traffic through Saxmundham (B1069, B1119, B1122).
- Additional traffic on the A12 corridor e.g. Marlesford and Little Glemham (mitigation is proposed as part of both of the East Anglia projects and the Sizewell C project).
- Additional traffic on the B1069 through Snape (mitigation is proposed as part of both of the East Anglia projects).

- Additional traffic on the A12 through Farnham and Stratford St Andrew, either prior to or in the absence of the SZC Co. Two Village Bypass scheme depending on the progress of that project.
- Additional traffic through Yoxford (A12/B1122/A1120) either prior to or in the absence of the SZC Co. Sizewell Link Road (and consideration of local improvements along the B1122 proposed as part of the East Anglia projects and the Sizewell C project).
- A12 / A1094 junction either prior to or in the absence of the SZC Co. roundabout, which forms part of the Two Village Bypass scheme or in the absence of the A12 / A1094 traffic signal scheme, which forms a road safety measure for the junction, but would only be delivered due to delays to the delivery of the aforementioned roundabout scheme.
- Additional traffic through Blythburgh (A12/B1125).
- Additional traffic through Westleton and Middleton (B1125).
- A1094 / B1069 western junction.
- A1094 / B1069 eastern junction, which includes some minor road safety mitigation as part of both of the East Anglia projects and the Sizewell C project.
- Increased use of the whole A12 corridor between the A14 Seven Hills Interchange and Lowestoft.
- Impacts on local C and unclassified roads used for access to the cable corridor or landfalls
- Impacts on the Rights of Way Network.
- Potential interaction between delivery of mitigation and the Project's traffic (see the Sizewell C Implementation Plan).
- Location of the onshore elements within an area poorly served by public transport and limited pedestrian and cycle infrastructure.

The list above should not be treated as being a definitive list of the SCC Local Highway Authority's concerns, as the concerns may change, or new concerns be added as more details of the project are made available.

7.19 National Highways' opinion should be sought regarding potential impacts on the Strategic Road Network.

Access Arrangements

7.20 SCC will need to understand the proposed access arrangements for constructing the cable corridor. This includes understanding of required visibility and vehicle swept paths in order to provide safe turning movements in/out of each access. This may require relevant speed surveys to understand visibility requirements or potential temporary speed limit changes to reduce impacts on hedgerows etc. NGET should identify what highway powers they will be incorporating within the application so that it is clear how permanent and temporary restrictions on the highway (including rights of way) are to be implemented.

7.21 Details of the connection of the access tracks or crossing points will need to be provided to show that they are safe to use, with the need for an adequate length

of access road that is of a suitable width to allow two vehicles to pass safely and that this is not obstructed by gates preventing vehicles leaving the public highway. The access roads will need to be designed to prevent trafficking of mud and debris or the flow of water onto the public highway.

Abnormal Indivisible Loads (AIL)

7.22 Further clarification will be needed over the potential for and number of Abnormal Indivisible Loads (AILs) or abnormal loads that are expected to be generated by the proposed development. Including by relevant categorisation as follows:

- STGO Category 1
- STGO Category 2
- STGO Category 3
- Special order movements.

7.23 As part of the East Anglia One (North) an assessment of the local AIL routes was undertaken, and this should be considered by NGET, along with the work required to understand any structural improvements that are necessary along the corridor.

7.24 In representations relating to previous NSIPs, SCC has highlighted the lack of coordination at all levels to provide and secure suitable permanent access for AILs. The current DfT preferred routes for high and heavy loads are out of date and in any case do not consider AILs that are not special-order movements. While some projects (e.g. EA1(N)) provide access to substation sites via haul roads during the construction phase these are not available for other projects nor in the operational phase. With the concentration of energy projects in East Suffolk SCC consider it is not unreasonable for such infrastructure to be provided to support the industry.

7.25 The proposed sub stations and convertor sites for this and other proposals within the Saxmundham – Aldeburgh – Leiston triangle would, unless significant improvements are made to the highway infrastructure, result in these facilities only being accessible by low standard minor rural roads.

HGVs and LGVs

7.26 The Applicant must provide clear definitions of the following:

- HGV, LGV in terms of size.
- Traffic movements i.e. a trip (single movement from an origin to a destination) or delivery (a movement from the origin to the destination and return to the origin).

Such terms should be used consistently in all documents and reflect relevant controls within the management plans.

Mitigation and legacy benefit on Public Rights of Way

7.27 Significant discussions will be needed with the SCC PRow team to minimise disruption and to identify relevant enhancements to the network.

7.28 Consideration should be given towards whether the linear nature of electricity networks infrastructure allows opportunities to connect people to the environment, for instance via footpaths and cycleways created in tandem with biodiversity enhancements.

Maintenance

7.29 SCC will look to protect its role to enable it to discharge its legal duties and protect itself against future liabilities. This may be through legal agreement with the applicant, planning obligations, requirements, specific clauses of the management plans or by inclusion of protective provisions.

7.30 It is expected that an agreement will be reached that will allow SCC to recover reasonable costs including but not limited to:

- Additional costs of routine, cyclic and emergency highway maintenance resulting from the Applicants' occupation or use of the highway.
- Visual and structural condition surveys of the highway and contributions towards structural repairs.
- Surveys and assessment of highway structures to facilitate AIL movements.
- Damage to the Highway (in accordance with the provisions of Section 59 Highways Act 1980).
- Creation of temporary traffic regulation orders (including SCC consultation and issue of permits).
- Relocating / removing street furniture and all other highway infrastructure to facilitate AIL movements.
- Technical approval and inspection of highway accesses and cable crossings as detailed in the approved construction traffic management plan; and
- Review of submitted materials for monitoring the final management plans.

Agreements with Local Highway Authorities

7.31 SCC considers it reasonable, and of benefit to the Applicant, to secure appropriate agreements to develop and implement any highway works and recover its reasonable costs to do so.

7.32 Discharge of requirements relating to highways, including PRow should be discharged by the LHA after consultation with the LPA.

Regional Access

7.33 The main regional access route is the A12. SCC is currently developing proposals to improve the A12 corridor between A14 'Seven Hills' and A1152 at Woodbridge; however, the proposal is subject to an application for Government funding. Separately, Sizewell C is proposing a bypass of Stratford St Andrew and Farnham; however, these improvements are subject to the project progressing. Despite these potential improvements on the A12 corridor there are a number of areas where transport impacts may occur. Examples include between Woodbridge and Wickham Market Bypass (congestion / road safety), Marlesford and Little Glemham (traffic impacts on local communities, noise, air quality,

vibration, and safety), between Yoxford and Lowestoft (single carriageway roads, road safety).

- 7.34 Limited road widths on the B1069 through Snape and the poor alignment of the junction of the B1069 and the B1078 at Tunstall make this route unsuitable for construction traffic. There are several aged structures at Snape that will need careful consideration regarding their load carrying capacity. Further south on the A1152 the level crossing and traffic signalised junction in Melton are both considered to be constraints on the local highway network in terms of capacity in peak periods.
- 7.35 There are several cross-country routes to the north of Ipswich that link to the A14 and / or A140. These are typically narrow winding minor A, B or C class roads (such as the A1120 or B1079) that pass through scattered communities. Some locations such as Coddendam have specific problems (very narrow road through buildings fronting the highway). These routes are unsuitable for construction traffic as has been recognised in recent NSIPs.

Site specific transport comments on the proposed options

Suffolk site 1 “emerging preference”

Landfall

- 7.36 In the absence of a haul road, the landfall area can only be accessed from a narrow C road (Thorpeness Road) and by passing through parts of Aldeburgh or Thorpeness. This minor road although straight is narrow and used by significant numbers of cyclists and walkers. In holidays there is significant on street parking outside prohibited areas. As footways in Thorpeness are narrow pedestrians frequently use the road as an alternative.
- 7.37 The B1353 from the B1121 at Aldringham to Thorpeness is relatively narrow, with some bends and crossed by a significant number of PRoW. A popular cycle route and the Suffolk Coastal Path traverse the area between the road and foreshore.
- 7.38 Therefore, SCC considers that access to this landfall via the existing highway is likely to lead to unacceptable transport impacts.

Cable Corridor

- 7.39 Access from the south through Aldeburgh is difficult for large vehicles particularly at the roundabout junction with the A1094/B1122, a matter explored in detail during the SPR EA1(N) examination. To access via the B1122 or B1069 from the north though Leiston has similar issues of narrow widths and restrictive junction layouts.
- 7.40 The B1121 from Benhall through Sternfield to Friston is narrow with sharp bends and road narrowing at the River Fromus bridge. It was discounted as a suitable route for construction traffic in the EA1(N), EA2 and SZC examinations.
- 7.41 Should the Sizewell C A12/A1094 roundabout be delivered by Sizewell C, this removes this junction as a road safety concern. In the absence of the Sizewell C

or EA1N/EA2 mitigation works, given the number of turning movements at the A12 / A1094 junction, mitigation is highly likely to be required at this location.

- 7.42 Use of the A1094 east of the A12 is limited by a weight restriction for AILs on the rail bridge at Friday Street, limited road width at some locations, impacts on residents through Snape and safety and capacity concerns at a number of junctions (B1069 Snape, B1121 Friston and B1069 Friston). This is of particular concern with regard to the cumulative impacts across the energy projects in this area. It is likely that mitigation will be required although there are significant constraints that would apply such as limited highway verges, adjacent dwellings, historic buildings, and environmental protections.
- 7.43 Access to the SPR EA1(N) site has been taken from the B1069 south of Knodishall. However, large vehicles except AILs were restricted to using the route from the south and not to travel through Leiston to minimise impacts on this community.
- 7.44 As the A1094 is the major access route to the tourist attractions of Aldeburgh, Snape Maltings and Thorpeness, it is used by significant additional traffic in holidays and weekends. This road, and most of the other local roads, are also regularly used by agricultural machinery.

Converter Station (site 1)

- 7.45 The comments regarding the suitability of the A1094 as an access route detailed above apply to access to the converter station. During the EA1(N) and EA2 examination the junction of the A1094 / B1069 at Friston was only considered for movements between Leiston and Friston, not turning movements to the east towards Aldeburgh.
- 7.46 It may be possible to form an access point off the B1069 south of Knodishall in a similar way to that proposed by SPR although the cumulative operation of this project and EA1(N) / EA2 will need to be considered.

Converter Station (Site 3)

- 7.47 The B1119 provides the only existing access to this convertor station. For access from the west all traffic would have to pass through Saxmundham and from the east through Leiston. Both have significant geometric constraints as well as impacts of construction traffic on the community. The B1119 between the towns has several sharp bends and occasional narrow pinch points making it unsuitable for construction traffic, again a matter discussed and agreed in recent DCOs.
- 7.48 Whilst access via a haul road may be possible this can only realistically be from the A12 or B1122 (or the Sizewell Link Road, proposed as mitigation for Sizewell C, if constructed). The latter however would require significantly longer journeys to reach the site. The River Fromus Valley, East Suffolk Line (and potentially weight limits on the B1121 bridge over it) and Leiston Branch Line are constraints to the north, west and south. Access from the west would require a temporary bridge over the River Fromus. The use of the A12/B1121 junction at Benhall would be of concern to SCC in terms of road safety with large vehicles turning across a dual carriageway, albeit one limited to 50mph speed limit.

Suffolk site 1 alternative

7.49 A landfall site immediately south of Sizewell is more accessible from the existing highway network than that between Thorpeness and Aldeburgh. The B1122, Lovers Lane, Sizewell Gap route forms the access to the Sizewell Nuclear Power Station and while not entirely built to modern design standards it is better than other evolved roads in the area. Its use is not without concerns about additional traffic passing through local communities such as Middleton and Theberton, particularly if associated with traffic from other projects. The route would benefit from improvements proposed by Sizewell C.

7.50 The EA1(n) and EA2 take access from Sizewell Gap to access the cable corridor as far south as the Hundred River.

7.51 Comments on access for the cable corridor south of Leiston and the cable convertor station are the same as for the emerging preference.

Suffolk site 3 alternative option 1

7.52 The constraints on highway access are the same as stated for converter station 3 although this alternative cable corridor option would enable greater connectivity with the B1122 access from the A12, particularly if the Sizewell Link Road is delivered before construction of this project. The extension of the cable route to the Converter Station Site 3 could provide an option for a temporary or permanent access along the route of the cable corridor, provided the obstacle of the Leiston Branch Line is overcome.

7.53 Whilst this option is likely to conflict with the Sizewell C proposals in the Abbey Road, Lovers Lane areas and Green Rail Route any potential of coordinating routes with Sizewell C Co should be explored.

Suffolk site 3 alternative (option 2)

7.54 When compared to Option 2, this option does not benefit from the potential links to the B1122 and would also rely on the constrained highway network south and west of Leiston as described for the emerging preference.

Site selection

7.55 In their site selection, the Applicant has committed to considering the traffic and access opportunities, nature of adjacent roads and avoiding settlements, residential properties or listed buildings. This exercise should not be restricted to the immediate area of the project but should consider the impacts on the whole transport corridor.

Co-ordination with other projects

7.56 SCC strongly supports co-location of landfalls, cable corridors and convertor station sites provided that suitable transport access can be provided during the construction and operational phases. Where possible this should also take advantage of transport improvements proposed for consented applications in the area.

8 Landscape and Visual

8.1 The following comments on Landscape and Visual are based on the information provided by the applicant and two site visits made to the general areas of the scheme's proposals. They take into account SCC's "Evolving Interim siting and design principles, for the connection of offshore wind and interconnector infrastructure in Suffolk" included in Appendix A to this response.

The Applicant's Emerging Preferences

8.2 From the five landfall search areas and seven converter site search areas identified within the Non-Statutory consultation documents, the applicant put forward in this consultation two landfall options and two converter site options. Of these options consulted upon, the following offer potential for co-ordination with other infrastructure projects:

- Only landfall site option 2 between Aldeburgh and Thorpeness
- Both Converter Station sites i.e. site 1 near Aldeburgh and site 3 near Saxmundham

8.3 Only those options that allow for coordination and co-location with other projects can be supported by SCC. Notwithstanding this, for completeness, all options put forward in the consultation are discussed below.

8.4 The different converter station sites would result in different cable corridors.

8.5 It should be noted that the search areas for potential landfall sites, converter stations and cable corridors are cast widely and are located within a highly constrained landscape, and in the absence of detailed proposals and mitigation, these comments can only be of a preliminary nature.

The Importance of Good Design

8.6 SCC notes that 4.6.5 of the emerging Draft Overarching National Policy Statement for Energy, EN-1, suggests that both the developer and the Secretary of State should consider taking independent professional advice on the design aspects of schemes.

8.7 Furthermore, SCC notes that the National Infrastructure Straprogramme, (ember 2020) states that: "All infrastructure projects to have a board level Design Champion in place by the end of 2021 at either the project, programme or organisational level, supported by design panels"

8.8 SCC considers there is the opportunity to achieve a coherent architectural and landscape design approach between all projects at a consolidated converter station site. Furthermore, this approach could be used to support the necessary modifications to the design and layout of the Friston site.

8.9 SCC would support the principle of a Design Champion being engaged sufficiently early in the development of the project, and the other projects that are anticipated to use any coordinated site, to oversee the design process. In practice, because this work will need to straddle both architectural and landscape disciplines, two key leads may be required to work in close collaboration.

- 8.10 A Design Champion would have the potential to contribute to the consideration of sustainable design issues and to the integration of the proposals into the landscape at the detailed design, construction, and operational stages of the project. SCC would also support the use of a design review panel, design code/design approach document, and an outline of the design process, setting out key stakeholders, consultees, and the community engagement processes.
- 8.11 The skillset required of a Design Champion has not been clearly defined within the National Infrastructure Strategy. The Institution of Civil Engineers (ICE) and the National Infrastructure Commission Design Group (NICDG) have produced a useful working paper 'Defining and developing the design champion role,' (August 2022), in this respect.

Emerging Preference for Landfall with Potential for Coordination with Other Projects: Landfall Option 2 (between Aldeburgh and Thorpeness)

- 8.12 This search area is highly constrained as it is located within the Heritage Coast and the Suffolk Coasts and Heaths Area of Outstanding Natural Beauty (AONB). It is close to the Sandlings Special Protection Area (SPA) and the North Warren RSPB Reserve, and within the Leiston-Aldeburgh Site of Special Scientific Interest (SSSI). The site also has high archaeological potential. In terms of tourism, site S2 is located within a tourism hotspot, the flat stretch of coastline between Aldeburgh and Thorpeness being a popular route for walks between the two settlements. The site would require access along the B1122 via Aldeburgh.

Emerging Preference for Converter Station Site with Potential for Coordination with Other Projects:

Sea Link Coordinated Converter Station Option 1 (Aldeburgh)

- 8.13 Having reviewed the information provided by the applicant and considered the options in this consultation, SCC considers the site unacceptable due to its prominent location adjacent to and overlooking the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and other protected sites.
- 8.14 The site is highly constrained as it is situated in gently rolling countryside within the setting of, and on two sides adjacent to the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB), on the outskirts of Aldeburgh, to the north of Hazlewood Hall. It is wholly within the Estate Sandlands⁶ landscape of the Suffolk LCA. It is typical of that landscape, consisting of a pattern of regular late enclosure fields, plantation woodlands and coverts, characteristic of that landscape type. Whilst the general pattern of the landscape appears to have remained reasonably intact since the first edition of Ordnance Survey, there have been some modifications to the field pattern and alignment of footpaths. It is notable that the historic trackway, known as Sloe Lane, links the Saxmundham Road (A1094) to Knodishall Common further north.

⁶ <https://suffolklandscape.org.uk/landscapes/estate-standards/>

8.15 The site appears to be elevated by at least 10 metres relative to the A1094, which runs along the northern side of the boundary of the Suffolk Coast and Heaths AONB. The site is within 2km of the Alde-Ore Estuary SSSI and RAMSAR sites, the Sandlings SPA, North Warren RSPB Reserve, Snape Warren SSSI, the Alde-Ore and Butley Estuaries SAC to the south and further smaller SSSI sites. It is adjacent to Great Wood⁷, an ancient woodland.

Sea Link Coordinated Converter Station Option 3 (Saxmundham)

8.16 There are a number of listed buildings within the vicinity of the site. Wood Farmhouse and Hill Farmhouse, both Grade II listed, would potentially experience a detrimental impact to their setting. Saxmundham Footpaths 5 and 6 cross the site and potentially require diversion.

8.17 The land to the north and East of Bloomfield's Covert is open arable land, from which all historic landscape features are absent. Prior to agricultural improvement works after 1945, this area had a locally characteristic field pattern and included a substantial Ancient Woodland known as Great Wood, as well as ponds and a small plantation typical of the Ancient Estate Claylands⁸ landscape type, of which this area is part. The current landscape is generally open, and a converter station would be prominent from the B1119. Whilst the provisional Agricultural land classification is slightly better than on Site 1, the loss of landscape features would be minimal, and the potential for Green Infrastructure benefits and Biodiversity Net Gain would be greater than on Site 1.

8.18 It is noted that potential effects on the AONB have been scoped out entirely for the operation of Site 3⁹ as it has been identified that there is no potential for effects on the setting of the designation.

Cable Corridors for the Emerging Preference Sites

8.19 The emerging preference for a cable route from Landfall S2 begins within the Heritage Coast, Suffolk Coast and Heaths AONB and is close to the Sandlings SPA. The construction of the cable route would affect the Sandlings Walk in several places, as well as other connected footpaths.

8.20 Between the Landfall site and Converter Station a HVDC cable route would be required. From Landfall site Option 2, the connection distance would be shorter to Converter Station Site 1 than to Site 3.

8.21 Site 1 is located between the Landfall site 5 and the substation, where it is proposed to connect to the National Grid at Friston.

8.22 To reach Site 3, the HVDC cable route would need to bypass the substations at Friston, around Manor Farm and Pear Tree Farm.

8.23 After converting the electricity from Direct Current to Alternating Current, an HVAC cable route would then need to connect the Converter station site with the

⁷ <https://heritage.suffolk.gov.uk/Monument/MSF19469>

⁸ <https://suffolklandscape.org.uk/landscapes/ancient-estate-claylands/>

⁹ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020026/EN020026-000043-EN020026 - Scoping Report - Volume 1 - Part 2 Suffolk Onshore Scheme.pdf>

proposed substation (at Friston). The distance to the substation (at Friston) is comparable for both Sites 1 and 3. Looking at the figure 'Suffolk Site 3 emerging preference' (p.46 Sea Link, Project Background Document, October 2022), it would appear that the HVDC cable route and the HVAC cable route between site 3 and the substation may be partly co-located within the same corridor. This would need to be explored further.

- 8.24 It should be noted here that for technical reasons the HVAC cable route will require a wider cable corridor than the HVDC cable route. So, although Site 3 would result in a longer HVDC cable route, the HVAC element, which would likely result in greater landscape and visual impacts, would be of a comparable length as for site 1, but would be further removed from the designated landscape of the Suffolk Coast and Heaths AONB and its setting and highly sensitive ecological sites.

The alternative Landfall and related Cable Corridors that cannot be supported by the Council as it does not offer the opportunity for coordination and co-location with other similar projects

Landfall option at Sizewell (Suffolk site 1 and 3 alternatives)

- 8.25 This landfall site is located within the Heritage Coast, Suffolk Coast & Heaths Area of Outstanding Natural Beauty and the Landfall and cable route could impact upon the Sandlings Special Protection Area, the Leiston-Aldeburgh SSSI, the Sizewell Marshes SSSI and the Suffolk Shingle Beaches County Wildlife Site (CWS).

9 Public Rights of Way (PRoW)

Summary

- 9.1 The geographic scale of this application encompasses existing Public Rights of Way (PRoW), new PRoW to be provided through the Sizewell C and EA1N & EA2 developments, permissive access, and open access land. Collectively, this access network provides a valuable – current and future - local amenity to residents for recreation, sustainable travel, and health and wellbeing. They are also significant factors in the tourism offer which includes the nationally promoted England Coast Path, the Suffolk Coast Path, the Sandlings Walk and many other promoted walks and rides. As such, the applicant is required to minimise any disruption both to the physical network and to the experience of the many users who value these paths for their natural beauty and tranquillity.
- 9.2 The impact on both the physical and the amenity value of the access network should be addressed as a separate theme within an Environmental Assessment, including factors such as the effect on the physical resource (closure and diversions) and on the quality of user experience with respect to changes to views, noise, air quality, presence of construction traffic and tranquillity. The impact of temporary closures of PRoW should not be underestimated, as their value for local amenity could be severely reduced or removed during works.
- 9.3 The cumulative impact of this proposal with the other existing energy projects consented and proposed in this area is concerning. There will need to be mitigation, compensation, and management strategies to ensure that the public; residents and tourists alike, retain the quantity and quality of access provision.
- 9.4 It will be unacceptable for the public to lose their amenity by the effective sterilisation of an area due to closures and disruptions from parallel or concurrent projects.

National Grid substation expansion

- 9.5 The extension of the substation at Friston should not directly affect the physical resource of the existing and proposed new public rights of way at this site, but it will impact on the amenity value of these routes, disruption from the construction phase and the permanent visual impact from the expanded site.

SCC will expect additional mitigation measures at this site.

Emerging Preferences

- 9.6 Both emerging preferences contain public rights of way within the outlined sites and within visual and audible range and have a direct impact on the physical access network and the quality of the access experience - traffic & construction activities, noise & tranquillity, visual impact. Enhanced access and connectivity to the wider network would be expected as mitigation and compensation.
- 9.7 **Converter site 1** contains Sloe Lane, an historic lane and public bridleway used by horse-riders who may be particularly susceptible to disturbance from construction activities. Any proposal to divert the bridleway must ensure that both the physical resource and the quality of the experience for the users is

maintained and enhanced. Enhanced access and connectivity to the wider network would be expected as mitigation and compensation.

- 9.8 **Converter site 3** contains a footpath link starting at the pavement on the B1119 at the east edge of Saxmundham heading southeast to link with other PRow to Sternfield and Snape to the south, and Friston to the east. This footpath is the only link on the east side of Saxmundham to the wider countryside and this link must remain. Any proposal to divert the footpath must ensure that both the physical resource and the quality of the experience for the users is maintained and enhanced. Enhanced access and connectivity to the wider network would be expected as mitigation and compensation.

Landfall sites

- 9.9 Both landfall options appear to have a direct impact on the physical access network and on the quality of the access experience - traffic & construction activities, noise & tranquillity, visual impact.
- 9.10 The choice of siting should seek to minimise the extent of impact on the access network and its users. A site with a single public right of way may appear to be a less impactful option than one with many PRow, but not if the single PRow is the only link or the prime amenity area for a settlement. Enhanced access and connectivity to the wider network would be expected as mitigation and compensation.

Terrestrial corridors -options

- 9.11 All the proposed cable corridors impact on the access network. This impact must be recognised, and management measures, alternative routes and mitigation for each affected PRow agreed with the county council prior to submission of the application. This should consider the physical impact on the network, the impact on the quality and enjoyment of the users of those networks and the cumulative impact of the already consented NSIPS; Sizewell and SPR EA1north and EA2.

Suffolk site 1 and site 3 emerging preference

- 9.12 The landfall site for Suffolk Site 1 emerging preference and Suffolk site 3 emerging preference affects the following PRow: Route of the England Coast Path on Crag Path along the beach, route of the Suffolk Coast Path, public footpaths across Church Farm marshes (Aldeburgh FP6 and FP8), informal access on the old railway line between Aldeburgh and Thorpeness. Extremely well used and valuable access resources.
- 9.13 The cable corridor would cross several public rights of way including the England Coast Path National Trail, the Suffolk Coast Path and Sandlings Walk.
- 9.14 For Suffolk site 3 emerging preference, the extent of affected access would be greater due to the additional distance to the converter site 3.

Alternative options

- 9.15 The alternative landfall site at Sizewell, for Suffolk site 1 alternative and Suffolk site 3 alternative (options 1 and 2) affect the following PRow: Route of England

Coast Path on cliff top, route of the Sandlings Walk and Suffolk Coast Path, plus a dense network of coastal and inland PRow – Aldringham FP19,21,22,23,28,30,31, 32, 33 and Byway 20, 18,17,24,25,26. Open Access Land.

- 9.16 This is the landfall site for EA1N & 2 and associated cable corridor and will already experience disruption through construction and temporarily closed routes associated with the SPR projects
- 9.17 Suffolk site 1 alternative and Suffolk site 3 alternative (option 2) are coincident with the SPR Onshore order limits for the cable corridors for EA1N & EA2 and create continued disturbance to the network and users.
- 9.18 Suffolk Site 3 alternative (option 3) will create additional disturbance to that already expected from the Sizewell C works namely the link road, rail, highway, and public right of way works.

Principles for working with Public Rights of Way

- 9.19 The Council expects the following principles to be adhered to for this development at all sites; landfall, converter sites, extension to the National Grid substation and the terrestrial corridor: -
- Early engagement with the County Council PRow & Access Team to discuss the impact on and management of the ProW & access network. Suffolk County Council is the Highway Authority for public rights of way and the Access Authority for Open Access land and the National Trail.
 - The Applicant must obtain the Definitive Map and Statement from the ProW & Access Team at Suffolk County Council. This is the only source of the up-to-date record of the ProW (supplied digitally).
 - Public rights of way should be marked on plans using the SCC digital data and labelled as per the Definitive Map and Suffolk County Council convention (Area-parish number – path number)
 - Where ProWs are directly impacted, a pre and post condition survey must be carried out including identification and assessment of surface condition and with a scope of coverage and methodology to be agreed with Suffolk County Council (SCC) as Highway Authority. This should include pre-construction work where ProW might be used to gain access to the corridor and reinforcement works might be required prior to use by vehicles.
 - Where impacted by the works, any PROW will be restored to original condition or to a condition agreed with SCC – where there are existing defects, the applicant should agree restoration measures with the County Council.
 - Where ProW cross the cable corridor, haul road, access tracks and other sites, the surface must be always kept in a safe and fit condition for all users to the satisfaction of the County Council.

- Pre-construction works must not obstruct or disturb any public rights of way (e.g., new fencing, archaeology surveys etc) unless otherwise agreed with the County Council. Management measures or temporary closures not covered in the DCO must be by application to the County Council.
- Public rights of way that are used for any stage of construction access should remain open, safe, and fit for the public to always use with management measures put in place with the agreement of the County Council.
- Any temporary closure of a ProW must be agreed with the County Council and the duration kept to the minimum necessary
- An alternative route must be provided for any public right of way that is to be temporarily closed prior to closure to a standard agreed with the County Council
- The location of alternative routes to be agreed with the Council.
- Any alternative route must be safe and fit for the public to always use – suitable surface, gradient and distance with no additional road walking between the natural destination points.
- Any temporary closure and alternative route will be advertised in advance on site and in the local media, and to the local parish councils including a map showing the extent of the closure and alternative route – process and cost to be agreed between applicant and SCC.
- There will be no new gates or stiles erected on any public rights of way that are impacted by the cable corridor and any other associated site.

10 Socioeconomics

- 10.1 The Sea Link multi-purpose interconnector project is one of four projects proposed by the promoter, National Grid (National Grid Electricity Transmission and National Grid Ventures), in Suffolk, for delivery in the late 2020's.
- 10.2 Local partners across Suffolk and the region, including SCC and the New Anglia Local Enterprise Partnership, share a high-level ambition to ensure energy infrastructure developments actively support a sustainable regional and national supply chain, with the direct benefit of increased employment, education, and training opportunities for residents. SCC is also working to ensure that the project fully and appropriately considers the character, function and sensitivity of the natural and historic environment and landscape of the county and its importance to a thriving tourism sector.
- 10.3 Preliminary discussions indicate that National Grid recognises the significant economic, employment, education, and training opportunities that this project and the further East Coast projects, for connection by 2030 represent. SCC is keen to ensure, through mutual benefit and collaboration, the socio-economic opportunity of these is maximised. Therefore, these projects should be approached as a single meta project and not solely on their own merits.
- 10.4 Suffolk has natural geographic advantages, which mean it will play a huge part in achieving the UK's ambition to reach Net Zero. Therefore, the cumulative socio-economic opportunities and negative impacts (such as adverse impacts in the visitor economy, churn, and negative displacement in local employment) of all these developments must be at the forefront of National Grid's thinking, as further details of these projects are developed.
- 10.5 National Grid will be aware that a number of NSIPs have been consented for the local area. Most notably:
- The Sizewell C Project:
<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/the-sizewell-c-project/>
 - East Anglia One North Offshore Windfarm
<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/east-anglia-one-north-offshore-windfarm/>
 - East Anglia Two Offshore Windfarm
<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/east-anglia-two-offshore-windfarm/>

- 10.6 A large amount of information and data is available from these projects, and this should be considered as part of the development of the Sea Link proposals. SCC considers that there needs to be close collaboration between NGET, SPR, Sizewell C Co., East Suffolk Council and Suffolk County Council.

Economic Development, Employment, Education and Training

- 10.7 As an individual project, Sea Link offers only limited opportunity in its own right. However, it should be viewed as one of the many individual projects that National Grid Plc via NGET and NGV are delivering in region, and SCC expects to work

with National Grid Plc to deliver a package of training, skills and growth opportunities that engages with the local supply chain strategically across all local projects e.g., Bramford to Twinstead and East Anglia Green overhead lines and Eurolink interconnector.

10.8 The project is also likely to be in construction at the same time as Sizewell C and the ScottishPower Renewable Hub are reaching the peak of their construction employment. There is a very high likelihood that achieving any home-based labour will be extremely difficult as these projects will be well established. SCC expects the applicant to take this into consideration when developing a workforce profile and its origins and will need to strongly evidence all their assumptions. SCC also expect the applicant to reflect these findings within all topic areas where workforce origin will have an impact, such as:

- Traffic and Transport
- Communities
- Accommodation

10.9 It is essential that the applicant works collaboratively with the Local Authorities to maximise the inward investment, socio-economic and skills benefits of these projects, ensuring the best possible deal for the communities that are hosting this vital Net Zero transmission, connection and generation infrastructure which has significant impact on them and their environment.

10.10 In line with National Grid's own findings, in their publication Building a Net Zero Workforce, ensuring a workforce with the right skills and a capable supply chain are available at the right time, is not only paramount to ensuring the successful delivery of Net Zero ambitions, but also crucial to ensuring Suffolk is able to maximise all the positive impacts of this project, whilst mitigating any negative impacts.

10.11 SCC will expect National Grid to work with them to understand how they can enrich and enhance measures in place that are already working to deliver legacy employment, education and skills benefits alongside growth and investment in a sustainable local supply chain.

10.12 Co-location and coordination of the converter stations and cable routes will allow for an efficient use of resources within a constrained local labour market.

Tourism & Visitor Economy

10.13 Suffolk offers a rich and varied tourist offer known for its heritage assets and landscape designations, such as, the Suffolk Coast and Heath AONB and Heritage Coast. This project and its associated onshore infrastructure need to fully assess its direct and indirect impacts on all known features and designations and particularly the extent to which the physical infrastructure will impact and detract from the environmental quality of an area for recreational activity alongside quantifying the impact of construction on tourism assets and visitor numbers. More broadly it is also imperative that the project considers its part in

the cumulative impact on the perception and propensity of people to visit the area during the onshore works period.

- 10.14 SCC is seeking to ensure that accommodation of construction workers and other non-home-based workers is of benefit to the visitor economy and would like to see any initiatives complementing the tourist season rather than disrupting it. Depending on the timing of the construction work, it could be possible for accommodation to be utilised in the shoulder months, for example. This could complement the main tourist season (and Autumn/Winter weekend breaks) rather than disrupting it. The potential for using accommodation out of season is strong and could be beneficial to the hospitality sector as it seeks to fully recover from the pandemic.
- 10.15 When considering the cable routes, some routes will be more sensitive than others due to the tourist businesses located on the route. Undergrounding, although advantageous in the long term, will also cause greater impact during construction due to the width of cable swath required and the increased time to install. SCC expects the applicant to consider all of this throughout the consultation period.
- 10.16 A co-ordinated approach to these proposed developments would be preferable for several reasons.
- 10.17 Coordination will lessen the disruption for visitors, if a single site were utilised, it would cut down on the number of road closures/diversions. Suffolk is marketing itself as an attractive destination for a “main” holiday as well as short breaks. If visitors are spending money on a holiday for a week or a fortnight, they will wish to be confident that they will not spend it being unable to visit certain attractions or destinations or stuck in traffic due to diversions.
- 10.18 Coordination will also assist with combating the potential perception that Suffolk is dominated by construction sites. A potential visitor to the region may be deterred by the thought of Suffolk as a destination if there is the possibility of several large-scale power projects being worked on at the same time. Any diversions need to be carefully planned with tourism impacts in mind, with appropriate mitigation.

Community impacts

- 10.19 A project of the scale and nature proposed, even more so cumulatively with other major infrastructure projects in the vicinity, will change the sense of place, the place attachment of the residents, and the recreational amenities of the affected villages and communities. The in-combination effect across topic areas of these residual impacts on the local community and its wider wellbeing need to be considered and mitigated. SCC expects an appropriate mitigation/compensation package for local communities. This would be in addition to any potential community benefits from the development.

11 Appendix B

Suffolk County Council Evolving Interim siting and design principles, for the connection of offshore wind and interconnector infrastructure in Suffolk

The purpose of this document is to set out at a high level, siting and design principles for offshore wind and interconnector infrastructure. Sections A, B and C, reflect the hierarchy of priorities that is, strategic principles, operational infrastructure, and its associated harm, and finally, temporary infrastructure related to construction and its associated harm. Within each of these sections the *numbered* principles included are prioritised.

It should be noted that this document recognises the national importance of strategic energy infrastructure and therefore, in section B, sets out limited and specific circumstances where it may be appropriate to consider sites both adjacent to, or within, Nationally Designated Landscapes, particularly if these are brownfield or previously developed sites. This would need to satisfy the national planning tests for development within or adjacent to a Nationally Designated Landscape, or within its setting.

Furthermore, these principles are predicated on the idea that coordination is desirable and appropriate in all cases, and at all scales. The intention of such coordination is to effectively minimise harm to Suffolk's communities and environment, that is, in terms of, strategic offshore connections, co-location and consolidation of onshore infrastructure, and coordination of construction activity.

Strategic principles

- 1 Where it is necessary to connect offshore wind to a landing point in Suffolk, this should wherever possible, be connected to a multipurpose interconnector to minimise the extent and adverse impacts of onshore infrastructure
- 2 Offshore transmission infrastructure should, wherever possible, be directed to the principal point of electricity use. In the south-east of England this is currently anticipated to be in the region of the Thames Estuary.
- 3 Project promoters connecting to National Grid onshore, in the same or similar locality, should seek to coordinate, co-locate, and consolidate infrastructure, both their own and those of other promoters' projects, wherever possible, to minimise the spatial extent of adverse effects on communities and the environment.
- 4 Project promoters connecting to National Grid onshore, in the same or similar locality, should seek to coordinate the construction of projects, both their own and those of other promoters, wherever possible, to minimise the extent and duration of adverse effects on communities and the environment.

Converter/substation station siting and operation

These principles also apply to grid connection infrastructure, including NGET substations, sealing end compounds, and related transmission equipment

- 5 The first preference for siting should be brownfield sites/previously developed sites that meet the required planning tests.

6 In the absence of appropriate brownfield sites/previously developed sites, consideration should be given to new sites adjacent to existing built development, specifically, industrial, or commercial development.

7 Sites adjacent to, or within the setting of, an AONB or National Park should not usually be considered at all, unless exceptionally, and in recognition of the need to deliver strategic net Zero energy infrastructure,

AND

to the satisfaction of the decision maker, there are no alternative sites available outside the setting of the AONB or National Park.

OR

the site meets criteria 5 and/or 6

AND

The development is capable of being effectively mitigated, such that during its operation, it will have only, to a minimal extent, non-significant direct, or indirect, impacts on the designation. (The accumulation of multiple non-significant impacts, such that together they become significant, is to be avoided)

8 Sites within an AONB or National Park should not usually be considered at all, unless exceptionally, and in recognition of the need to deliver strategic Net Zero energy infrastructure,

they meet criteria 5 and/or 6,

AND

alternative sites outside the AONB or National Park are, to the satisfaction of the decision maker, deemed not to be available

AND

the development can be effectively mitigated such that during its operation, it will only have, to a minimal extent, non-significant impacts on the designation. (The accumulation of multiple non-significant impacts such that together they become significant, is to be avoided)

9 Other sites within AONBs and National Parks that do not meet criteria 5 and 6, should only be considered, if it is conclusively demonstrated to the satisfaction of the decision maker, that there are no alternatives.

10 Following the application of 1-9 above, preference should be given to sites that meet the following criteria:

The site *and* cable corridors should minimise or eliminate permanent adverse impacts on the fabric of the landscape, historic features and character, or ecological features such as trees, hedges, woodlands wetlands etc

Harm to built heritage assets and their setting should be minimised, substantial harm should be avoided.

Minimise adverse impacts of noise on public and residential amenity

Cable corridors and associated haul and construction access routes should avoid or minimise permanent loss of buried archaeological features.

Minimise adverse impacts on landscape and visual amenity, and existing public access through the inherent characteristics of the site, or because the site can be adapted to successfully mitigate such adverse effects.

Does not add to local surface water or fluvial flood risk OR provides an opportunity to eliminate such additional risks as may be created.

Can achieve acceptable operational site access, and where required temporary construction access, which can be reasonably remediated following commencement of site operation.

C) Cable Corridors, temporary haul routes, and construction access and laydown

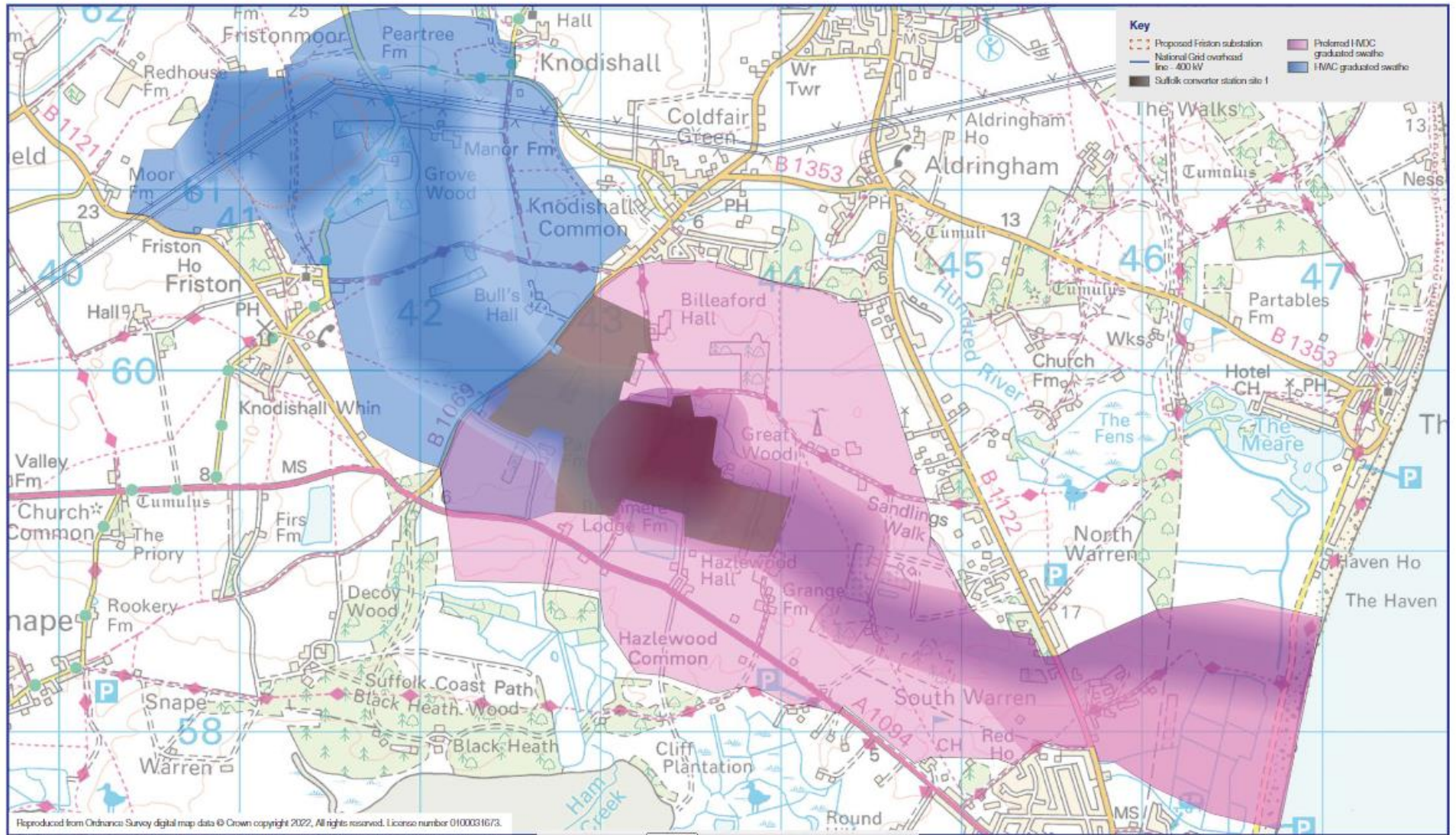
12 Cable corridors, associated haul routes and construction access, should avoid, or minimise temporary loss of trees, hedgerows, woodland, and other landscape features, historic landscape character and wildlife.

14 Cable corridors, associated haul routes and construction access should avoid or minimise temporary adverse impacts on public and private amenity in respect of noise, dust and other disturbance.

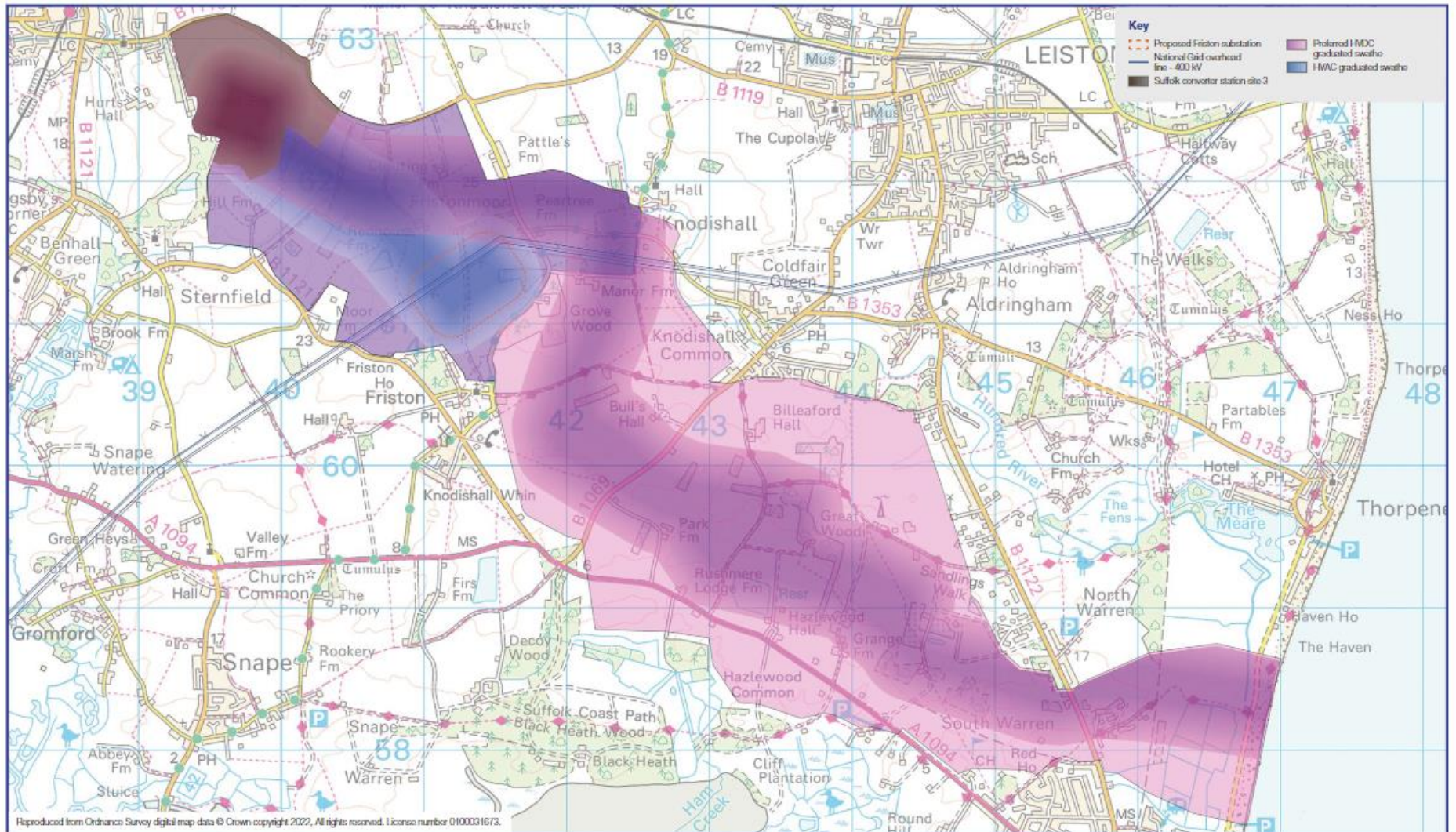
15 Cable corridors, haul routes and construction access should be located and designed in such a way that they are capable of effective restoration.

12 Appendix C – Maps of Options

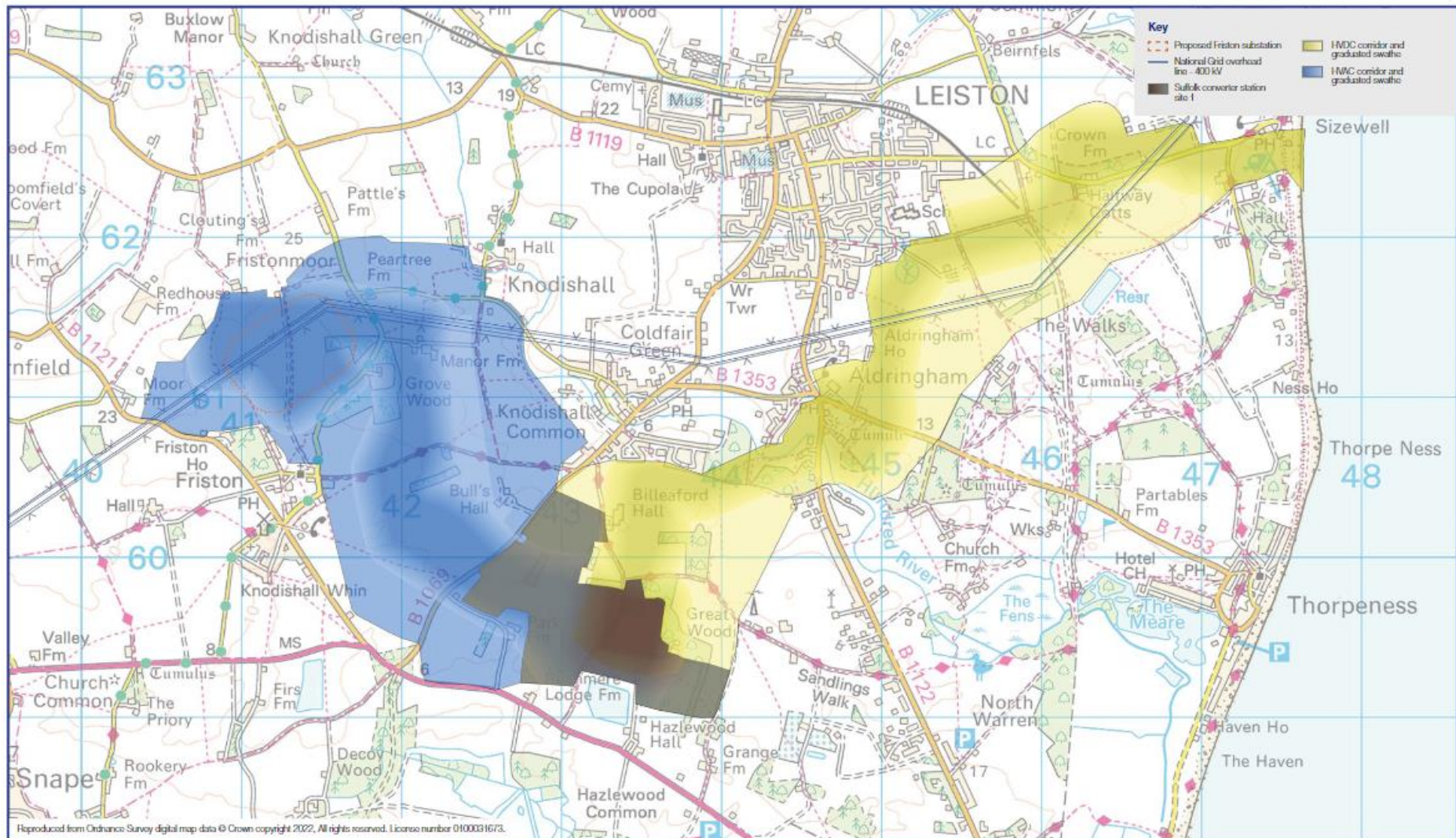
Suffolk site 1 emerging preference



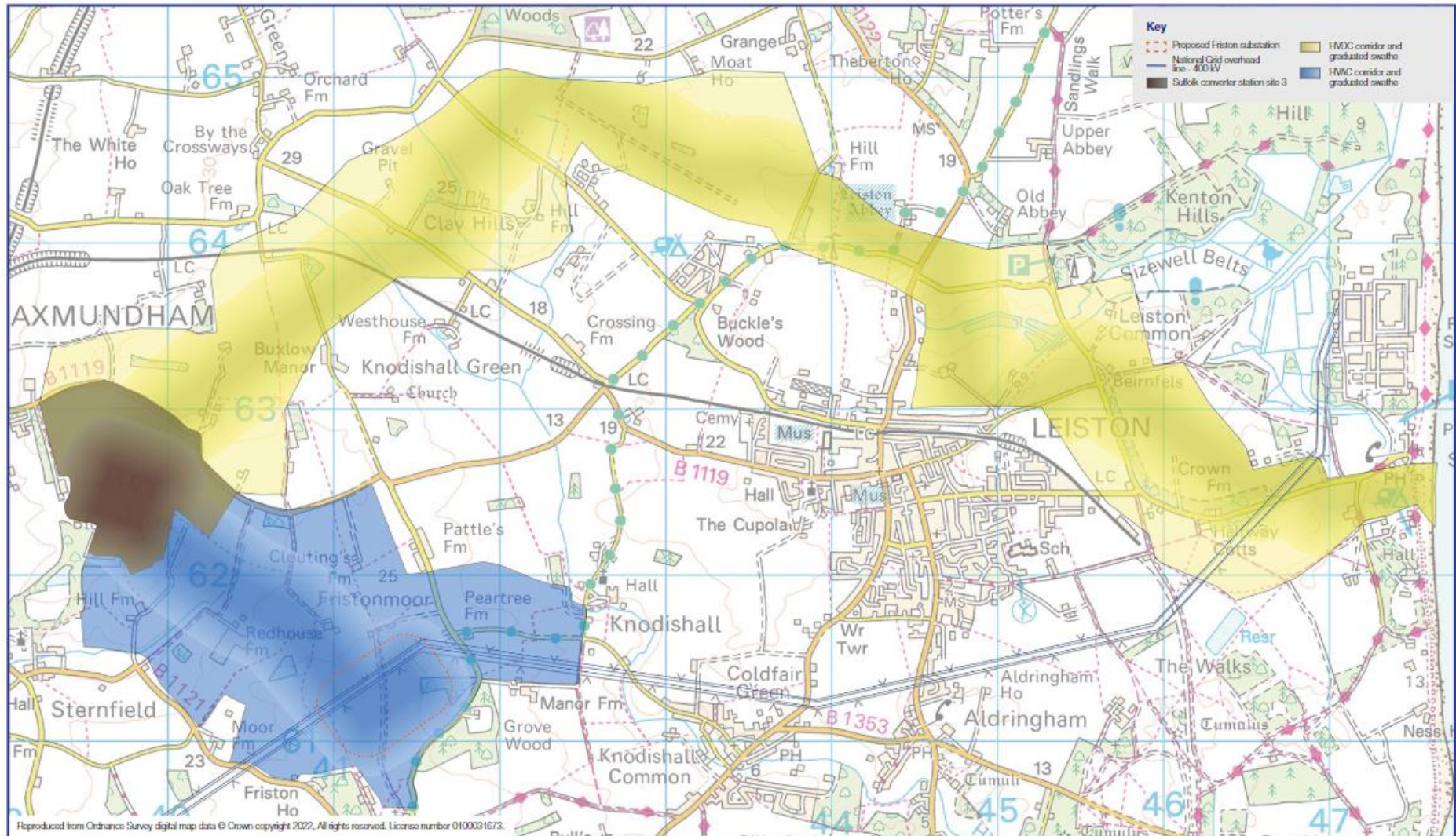
Suffolk site 3 emerging preference



Suffolk site 1 alternative



Suffolk site 3 alternative (option 1)



Suffolk site 3 alternative (option 2)

