

Non-technical summary of the independent review of the strategic options appraisal by National Grid Energy Transmission (NGET) for Norwich to Tilbury (N2T) nationally significant infrastructure project (NSIPs) by Hiorns Smart Energy Networks by Essex County Council, Norfolk County Council and Suffolk County Council.

1. Commission of joint county council independent review of the strategic options appraisal for N2T

- 1.1 In June 2023, Essex, Norfolk and Suffolk county councils (“the joint councils”) commissioned an independent review of the strategic options appraisal for the N2T NSIP. This appraisal was undertaken by NGET prior to the first round of non-statutory consultation in June 2022. The appraisal concluded that NGET’s preferred option for N2T and that was subsequently taken forward for non-statutory consultation would be a terrestrial route that comprised overhead lines with some undergrounding.
- 1.2 The independent review of NGET’s strategic optioneering appraisal process has been undertaken by Andy Hiorns of Hiorns Smart Energy Networks. At the request of ECC, on behalf of the joint councils, the commission will be paid for by NGET.
- 1.3 The main output from the commission is a report that helps the joint councils understand NGET’s strategic optioneering appraisal process. To support this understanding, the report reviews the need and timing for additional electricity transmission capacity out of the East Anglia region by 2030.
- 1.4 A decision was made by the joint councils to make the report publicly available from 8 November 2023 on both ECC and SCC websites.

2. Summary of the independent review of the strategic options appraisal for N2T

- 2.1 The independent review supports NGET’s position that there is a need for additional electricity transmission capacity to facilitate renewable and low carbon energy generation development in the East Anglia region.
- 2.2 The independent review does not support NGET’s programme delivery date of 2030. Instead, arguing that that the need for additional transmission capacity would more likely be closer to +2035.
- 2.3 The independent review determines that NGET have focused solely on the contracted energy generation position of National Grid Electricity Systems Operator (ESO) and in doing so have identified the maximum need for additional transmission capacity. However, it is extremely unlikely that all of ESO’s contracted energy generation will come forward and/or connect at the volumes stated and/or to the dates contracted.
- 2.4 The independent review determines that there is reasonable potential to move the connection points for the two interconnectors to Europe that NGET have included as part of the need for additional transmission capacity, which would

be met by N2T, to a more optimum location within the UK network. Any potential move of either interconnector would be outside of the current geographical scope for N2T.

- 2.5 The independent review does not support NGET's need argument for N2T that includes a connection date of 2029 for Unit 1 and 2030 for Unit 2 at Sizewell C new nuclear power station. Given the forecast of a 10–12-year construction programme, it is suggested that the timing of both connections require review and that the earliest connection date is more likely to be +2035.
- 2.6 The independent review considers that NGET have overestimated the cost of an integrated offshore option by including the additional cost for the infrastructure required to connect offshore energy generation development. If the cost of connection infrastructure is borne by NGET, then it should be passed on as a saving to any developer of offshore energy generation development.
- 2.7 The independent review considers that NGET could delay progressing N2T for at least 5 years without adversely impacting the need for transmission capacity or the delivery of N2T. The challenge NGET will have to overcome is that contracted electricity transmission capacity has been allocated on the basis of which energy generator / development requested it first, not which energy generator / development needs it first. The current proposed reforms to this process by ESO, if fully implemented, should ensure available transmission capacity is allocated to electricity generation which is ready to connect, thereby avoiding the current issue of grid blocking.
- 2.8 The independent review determines that notwithstanding all of the above, the most economical option to meet the need for additional electricity transmission capacity in East Anglia would still be terrestrial and require overhead lines. However, the cost differential would be significantly less than NGET currently suggest but substantially more for an integrated offshore option.

END