

Tween Bridge Solar Farm

8.12 Sensitivity Test Report

**Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms
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1 Executive Summary

- 1.1.1. This Sensitivity Test Report has been prepared to support the Environmental Impact Assessment (EIA) submitted as part of the Development Consent Order (DCO) Application for the Tween Bridge Solar Farm. The Sensitivity Test Report responds to potential changes to the Scheme's anticipated grid connection date arising from the National Energy System Operator (NESO) connections reform process, which may result in alternative connection dates than those assumed within the Environmental Statement (ES).
- 1.1.2. The ES assesses the Scheme on the basis of construction commencing in 2028, with phased connection of capacity from 2029 and full operation by 2032. Since submission of the DCO Application, the Scheme has been placed within NESO's Gate 2, Phase 2 connection window, indicating that a revised grid connection date (or dates) may fall between 2031 and 2035. As a result, this Sensitivity Test examines whether changes to the timing and phasing of construction, operation and decommissioning would materially alter the findings or conclusions of the ES.

Scope of the Sensitivity Testing

- 1.1.3. Two Sensitivity Test scenarios have been assessed:
- Sensitivity Test 1: A single grid connection date within the 2031–2035 window, resulting in a shorter construction programme of approximately 36 months, with up to three land parcels constructed concurrently.
 - Sensitivity Test 2: Multiple grid connection dates within the 2031–2035 window, with construction taking place over a 54 month period, consistent with the construction duration assessed in the ES and with no more than two land parcels constructed concurrently.
- 1.1.4. For each Sensitivity Test, the implications for the construction, operation and decommissioning phases have been considered across all relevant environmental topics scoped into the EIA.

Summary of Findings

1.1.5. The Sensitivity Test 1 & 2 assessments confirm that the ES remains robust and that its conclusions are unchanged. Across both Sensitivity Test scenarios:

- No new or materially different likely significant environmental effects have been identified.
- Changes relate solely to the timing and phasing of works, not to the design, scale, footprint or operational characteristics of the Scheme.
- The nature, magnitude and significance of effects reported in the ES remain the same for all environmental topics.
- The timing of effects may differ from those assessed in the ES, but these are limited to a temporal shift only, with no increase in duration or severity of effects.

1.1.6. The following headline conclusions apply across the assessed topics:

- Landscape and Visual, Ecology, Cultural Heritage, Ground Conditions, Water Resources, Noise and Vibration, Air Quality and Greenhouse Gases, Transport, Agriculture, Socio economics and Other Environmental Topics: The assessment parameters tested remain within, or represent a variation of, the worst case scenarios previously assessed in the ES. Embedded mitigation and management measures secured through **the draft DCO [Document Reference 3.1 Revision 4]** continue to be effective.
- Socio economics: Updated peak construction and decommissioning workforce assumptions for Sensitivity Test 1 do not change the overall significance of effects on employment, economic contribution or accommodation demand. Adequate local accommodation capacity is available throughout the year, and effects remain not significant.
- Cumulative Effects: The cumulative assessment conclusions presented in the ES remain valid.

Overall Conclusion

1.1.7. The Sensitivity Test Report demonstrates that potential changes to the Scheme’s grid connection date and associated construction, operational and decommissioning timelines do not undermine the findings of the ES submitted

with the DCO Application. The ES remains a live and robust assessment, and its conclusions are not materially altered by either Sensitivity Test scenario.

- 1.1.8. Accordingly, no updates to the ES or its mitigation framework are required as a result of the sensitivity testing undertaken

2 Introduction

2.1 Purpose of this Document

2.1.1. This document has been prepared to provide a sensitivity test to the Environmental Impact Assessment submitted as part of the Development Consent Order (DCO) Application for Tween Bridge Solar Farm, comprising a solar photovoltaic (PV) array electricity generating facility, Battery Energy Storage System (BESS) and associated infrastructure (the "Scheme") in response to the potential change to the Scheme's grid connection date due to the National Energy System Operator (NESO) connections reform process.

2.1.2. This document confirms through the sensitivity test assessment that the ES submitted with the DCO Application remains robust and the assessment findings and conclusions remain materially unaltered. There is no update made to the ES subsequent to the sensitivity test analysis and conclusions. The following documentation remains live and is not superseded:

- **Environmental Statement (ES) Volume 1 and Volume 2 (Chapters 0 to 18) [APP-037] to [APP-055];**
- **ES Volume 3 (Appendices) [APP-056] to [APP-128];**
- **ES Volume 4 (Figures) [APP-129] to [APP-175]; and**
- **Non-Technical Summary [APP-056]**

3 Background

- 3.1.1. An ES was prepared for the DCO Application and accordingly assessed the design of the Scheme within parameters and controls defining those aspects of the Scheme capable of having significant environmental effects, as defined in the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (hereafter referred to as the “EIA Regulations”). The parameters used for the purpose of the ES assessment are set out in **ES Chapter 2 Scheme Description [APP-039]**.
- 3.1.2. Section 2.8 of **ES Chapter 2 Scheme Description [APP-039]** sets out the construction and phasing assumptions for the assessment of the Scheme in accordance with the connection date the Scheme was anticipated to have at the point of submission of the DCO Application, and how the Scheme would be built to meet this date. As is outlined in **ES Chapter 2 Scheme Description [APP-039]**, construction of the Scheme was anticipated to commence in 2028 and would be completed and the Scheme fully operational in 2032, with phases of capacity coming online from 2029 onwards (if required).
- 3.1.3. The ES considers a construction period of a 54-month period (2028– 2032) in either a single phased approach (development of Land Parcels completed one after another with the potential for breaks between development of Land Parcels) or through multiple phases (development of Land Parcels concurrently). For the multiple phase construction option, no more than two land parcels (within Land Parcels A–E) would be built out at the same time, as outlined in **ES Chapter 2 Scheme Description [APP-039]**.
- 3.1.4. The Assessment Years used to inform the ES are:
- Existing Baseline (2024 / 2025) – this is the principal baseline against which environmental effects were assessed in the ES, and for which the baseline studies for the EIA were undertaken. Some survey work took place in 2024, hence the spread in years for the existing baseline;
 - Future baseline (Without the Scheme) in 2028–2032 (construction phase), 2032–2072 (operational phase) and 2072 (decommissioning phase);
 - Construction (2028–2032) (With the Scheme): – The length of the construction programme for the purposes of the ES was anticipated to be

2028–2032, in a phased approach. This assumed that the Scheme would be built over a 54-month period;

- Operation (2032–2072) (With the Scheme): – This assumes that the Scheme would be operational during the latter part of 2032 and was determined by the timeframe National Grid stated within the original Grid Connection Offer for completion of the connection;
- Decommissioning (2072) – It is proposed that the Scheme would be decommissioned after 40 years of operation. Decommissioning would take approximately 24 months, potentially in a phased approach.

(as described in **ES Chapter 4 Approach to Environmental Impact Assessment [APP-041]**).

- 3.1.5. Since the submission of the DCO Application and acceptance for Examination on 23rd September 2025, NESO has confirmed the Scheme has been included in the Gate 2 Connection Reforms delivery pipeline and allocated to Phase 2. It is likely Phase 2 projects will be offered connection dates between 2031 and 2035 according to NESO, although this will be confirmed in the Gate 2 Offer, which is currently expected from NESO between early September 2026 and mid-January 2027. While this connection date range encompasses the final connection and operation date for the Scheme (2032) as assessed in the ES, the earliest phase of capacity in 2029 is now also expected to be within the 2031–2035 window.
- 3.1.6. Additionally, it is considered likely that NESO will combine the total capacity of the Scheme into a single connection date when they issue the connection offer – i.e. the entire 800MW will have a single connection date between 2031 and 2035. This is on the basis that the original offer for the earliest phase of capacity with a 2029 connection date would not be possible under a Gate 2 Phase 2 delivery window, and that the existing offer (2029) is currently non-firm. NESO methodologies do not confirm how non-firm dates will be treated.
- 3.1.7. Accordingly, this Sensitivity Test Report (hereafter this document is referred to as the “Sensitivity Test Report”) considers the implications of the Scheme’s potential revised connection dates and subsequent changes in the construction timing parameters governing the ES. The Sensitivity Test Report seeks to consider and assess if the potential changes to the connection date, as set out

below, have any bearing on the findings and conclusions set out in the ES submitted with the DCO Application in August 2025.

4 Methodology

- 4.1.1. This Sensitivity Test Report considers two phasing scenarios given the remaining uncertainty regarding the final NESO grid connection offer. The scenarios considered are as follows:
- **Sensitivity Test 1** – A single connection date within the 2031–2035 window.
 - **Sensitivity Test 2** – Multiple connection dates splitting the Scheme’s capacity within the 2031–2035 window.
- 4.1.2. For both Sensitivity Test scenarios, the consequential changes to the construction, operation and decommissioning phases are considered against the assumptions and findings of the ES.
- 4.1.3. Further details are set out below for ‘Sensitivity Test 1’ and ‘Sensitivity Test 2’ approach and methodology.
- 4.1.4. The general methodology approach for ‘Sensitivity Test 1’ and ‘Sensitivity Test 2’ is not detailed again in the environmental topic methodologies, but where relevant, environmental disciplines have set out details of the worst-case scenario parameters assessed within the general parameters of ‘Sensitivity Test 1’ and ‘Sensitivity Test 2’ methodology set out above. This will ensure any likely significant effects arising have been assessed robustly.
- 4.1.5. The assessments provided for ‘Sensitivity Test 1’ and ‘Sensitivity Test 2’ address only the impacts of the potential change in the construction/operation/decommissioning programme assumptions provided in the ES, rather than providing a wholly new and standalone assessment. The ES remains a live document and is not superseded.

Sensitivity Test 1 Methodology

Construction Phase

- 4.1.6. Under the approach of 'Sensitivity Test 1' a single connection date within the 2031-2035 window is assessed. As outlined above, the ES assumed that construction would take place over a period of up to 54 months, which could be either over a single phased approach where land parcels are constructed sequentially one after the other, or via a multi-phased approach
- 4.1.7. The Applicant confirms a 36-month construction period is achievable for the Scheme should NESO confirm a single connection date. The longer 54-month construction programme had allowed time to bring capacity online in phases from 2029 to 2032, and the requisite testing/commissioning before bringing each phase into operation.
- 4.1.8. Given the single connection date window is expected to be January 2031 at the earliest and December 2035 at the latest, the construction period could begin earliest January 2028 to achieve a January 2031 connection date, or latest December 2032 to achieve a December 2035 connection date. The likely worst-case scenario of a 36-month construction period starting within the 2028-2032 window and continuing through to either January 2031 or December 2035 depending on the connection date has been defined and assessed within each environmental topic outlined below. This is because the worst-case construction programme scenario may be different across environmental topics.
- 4.1.9. In addition, the ES assumes that no more than two Land Parcels (within Land Parcels A-E) would be built out at the same time. 'Sensitivity Test 1' considers that no more than three Land Parcels (within Land Parcels A-E) would be built out at the same time (an increase of one additional Land Parcel). The assumption about how many Land Parcels would be built out at any one time is increased to three in 'Sensitivity Test 1', because 'Sensitivity Test 1' assumes the Scheme connects into the national electricity transmission system at a single connection date and therefore the Scheme would need to be fully built out by that date, rather than across phased dates as is assumed in 'Sensitivity Test 2' and the assessment in the ES, where infrastructure would be built out as required to meet each connection date.

4.1.10. In summary the following parameters are assessed for 'Sensitivity Test 1' construction phase:

- 36-month construction period;
- Construction period starting between January 2028–December 2032 and finishing between January 2031 – December 2035 (worst-case scenario defined and assessed, as required, for individual environmental topics), and
- No more than three Land Parcels constructed at any one time.

Operational Phase

4.1.11. The ES considers a 40-year operation of the full Scheme between 2032 and 2072 as the worst-case operational assessment scenario. The final NESO connection offer could change the date on which the Scheme starts to operate when compared to the ES assumptions. Operation of the Scheme could begin at the earliest in January 2031, or at the latest December 2035. For either of the scenarios the operational life of the Scheme would remain at 40 years.

4.1.12. To ensure a robust assessment is undertaken consideration will be given to the minimum and maximum extents of the operational window starting (2031–2035). In general, the fundamental nature and magnitude of most operational effects is not materially influenced by the exact year within the 2031–2035 window. However, if a notable change to an effect is identified through the sensitivity testing assessment, this will be set out in the relevant environmental discipline section in this Sensitivity Test Report.

4.1.13. In summary the following parameters are assessed for 'Sensitivity Test 1' operational phase:

- **Operational Scenario 1** – 40-year operation starting in January 2031
- **Operational Scenario 2** – 40-year operation starting in December 2035

Decommissioning Phase

- 4.1.14. The ES considers that the Scheme would be decommissioned after 40 years of full operation in 2072 and that this would take place over a period of up to 24 months. The final NESO connection offer could change the date on which the Scheme starts to operate and therefore the decommissioning start date when compared to the ES assumptions. Operation of the Scheme could begin at the earliest in January 2031 with decommissioning starting earliest January 2071 or operating at the latest December 2035 with decommissioning starting latest December 2075. For either of the scenarios the decommissioning period of the Scheme would remain at 24 months, with decommissioning to commence 40 years after the date the Scheme is connected to the national electricity transmission system.
- 4.1.15. To ensure a robust assessment is undertaken consideration will be given to the minimum and maximum extents of the decommissioning window starting (2071–2075). In general, the fundamental nature and magnitude of most decommissioning effects is not materially influenced by the exact year within the 2031–2035 window. However, if a notable change to an effect is realised through the sensitivity testing assessment, this will be set out in the relevant environmental discipline section in this Sensitivity Test Report.
- 4.1.16. In summary the following parameters are assessed for ‘Sensitivity Test 1’ decommissioning phase:
- **Decommissioning Scenario 1** – decommissioning starting in January 2071
 - **Decommissioning Scenario 2** – decommissioning starting in December 2075

Sensitivity Test 2 Methodology

- 4.1.17. The ES considers that the Scheme could be phased across multiple connection dates. The ES assumes that the Scheme would be fully operational in 2032, with phases of capacity coming online from 2029 onwards.
- 4.1.18. In 'Sensitivity Test 2', multiple connection dates are considered and the assumed gap between the earliest phase of capacity and the full Scheme being operational remains the same as in the ES assessment (~3.5 years). This is considered to be a reasonable assumption with the remaining uncertainty surrounding the final NESO connection offer.
- 4.1.19. Within 'Sensitivity Test 2', the impacts of moving the connection dates to the back-end of the 2031-2035 window are considered. It is assumed the earliest phase of connection could be in mid-2032 and that the Scheme is fully operational at the end of 2035. As the ES already considers the impacts associated with the connection of the Scheme being at the front-end of the 2031-2035 window, the maximum and minimum worst case scenarios of multiple connection dates are therefore considered through the ES (window 2028-2032) and this 'Sensitivity Test 2' (window 2031- 2035) when taken together.

Construction Phase

- 4.1.20. Under the approach of 'Sensitivity Test 2' multiple connection dates at the back-end of the 2031-2035 window are assessed, as described in paragraph 4.1.19. A 54-month construction programme is considered, as assessed in the ES. It is assumed that construction of the first phase of capacity will start around a year before the earliest phase of capacity being connected. Therefore, the earliest construction could start is 2031. Construction could either be over a single phased approach where Land Parcels are constructed sequentially one after the other, or via a multi-phased approach where no more than two Land Parcels (within Land Parcels A-E) could be under construction at any one time.
- 4.1.21. In summary the following parameters are assessed for 'Sensitivity Test 2' construction phase:
- 54-month construction period;
 - Earliest construction start 2031; and

- No more than two Land Parcels constructed at any one time.

Operational Phase

- 4.1.22. The ES considers a 40-year operation of the full Scheme between 2032 and 2072 as the worst-case operational assessment scenario.
- 4.1.23. The final NESO connection offer could change the date on which the Scheme starts to operate. In 'Sensitivity Test 2', the earliest the Scheme could partially operate is considered to be mid-2032, with a fully operational Scheme end of 2035 and 40-year full operation between 2035-2075.
- 4.1.24. Partial operation of the Scheme between 2032-2035 will not be assessed in 'Sensitivity Test 2'. This reflects the same approach as the ES with the worst-case scenario assessing the full operation of the Scheme, noting that **ES Chapter Air Quality & Greenhouse Gas Emissions [Document Reference 6.2.14 Revision 2]** assesses both partial and full operational Scheme effects for completeness.
- 4.1.25. In summary the following parameters are assessed for 'Sensitivity Test 2' operational phase:
- 40-year full operation between 2035-2075

Decommissioning Phase

- 4.1.26. The ES considers the Scheme would be decommissioned after 40 years of full operation in 2072 and that this would take place over a period of up to 24 months. The final NESO connection offer could change the date on which the Scheme starts to operate and therefore the decommissioning start date when compared to the ES assumptions.
- 4.1.27. As stated above, for 'Sensitivity Test 2' the Scheme is assumed to be fully operational at the end of 2035. The decommissioning period of the Scheme would remain at 24 months, with decommissioning to commence after 40 years of full operation in 2075.
- 4.1.28. In summary the following parameters are assessed for 'Sensitivity Test 2' decommissioning phase:

- Decommissioned after 40 years of full operation in 2075.

5 Sensitivity Test 1 Assessment

5.1. Landscape and Visual

Methodology

- 5.1.1. The methodology used for the landscape and visual sensitivity test assessment replicates that used for the ES for the Scheme, namely **Appendix 6.1: Landscape and Visual Impact Assessment Criteria [APP-061]**. The methodology of Sensitivity Test 1 is set out in Section 4 of this report and is not therefore repeated.

Construction Phase Assessment

- 5.1.2. In relation to the shortened construction period of 36 months and construction operations occurring within three parcels as opposed to two at one time as proposed in Section 4 above, it is considered that the assessment as set out in **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]** would not materially change. The ES assessment considers that *'the multiple phase construction option represents a worst case scenario from a landscape and visual perspective'* as stated in paragraph 6.3.42 of **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]**. The Duration, (i.e. over a shorter time period of 36) and where (i.e. within an additional land parcel) construction activity takes place within the Order Limits in the context of the whole Scheme has little overall bearing upon the construction effects upon landscape character, landscape features or visual amenity. Whilst the time period would shorten which may be beneficial this may also result in some intensification of activity over a larger proportion of the site. However, the duration of the effects of Sensitivity Test 1 would still be in the Medium Term range as set out in **ES Chapter 6: Appendix 6.1 Landscape and Visual Impact Assessment Criteria [APP-061]**. Therefore, it is predicted that there would be no change to the landscape or visual effects as set out in the ES assessment, as a result of the reduced construction period nor in terms of operations occurring in three as opposed to two parcels as set out for Sensitivity Test 1.

Operational Phase Assessment

- 5.1.3. The assessment effects during the operational phase for both Operation Scenario 1 (operation commencing in 2031) and Operation Scenario 2 (operation commencing in 2035) will be the same as those set out in **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

- 5.1.4. The assessment effects during the decommissioning phase for both Decommissioning Scenario 1 (commencing in 2071) and Decommissioning Scenario 2 (commencing in 2075) will be the same as those set out in **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.1.5. Cumulative effects are primarily influenced by the scale and nature of development rather than precise timing of overlap; these parameters remain unchanged. Any potential revised temporal overlap would not exceed the conditions already assessed. The assessment of cumulative effects for both scenario 1 and 2 will be the same as those set out in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

Conclusion

- 5.1.6. The assessment effects for Sensitivity Test 1 during the construction, operation and decommissioning phases will be the same as those set out in **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]** and **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** with no difference in the magnitude, sensitivity or significance of effect as a result of operation and decommissioning scenarios 1 or 2.

5.2. Ecology and Nature Conservation

Methodology

- 5.2.1. **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** was supported by a full range of specialised ecology surveys that followed standard guidance and were completed within appropriate survey periods. The scope of surveys and the overall assessment approach were informed through consultation with Natural England and the relevant local planning authorities, including the City of Doncaster Council and North Lincolnshire Council. This ensured that an accurate ecological baseline for the Order Limits was established. This baseline was used to assess potential impacts arising from the Scheme and to inform the design of appropriate mitigation and enhancement measures to ensure that no significant adverse ecological or residual effects would occur.
- 5.2.2. The ecological assessment methodology presented within **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and the findings of the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]** have been used to assess the potential impacts associated with Sensitivity Test 1. The methodology of Sensitivity Test 1 is set out in Section 3 of this report and is not therefore repeated.

Construction Phase Assessment

- 5.2.3. Sensitivity Test 1 considers a revised construction programme comprising a 36-month construction period within the 2031–2035 window, with up to three land parcels potentially constructed concurrently.
- 5.2.4. The assessment presented within **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** considered a worst-case construction scenario in terms of duration, phasing and extent of disturbance. The potential ecological effects arising from construction are primarily driven by the nature and extent of construction activities (e.g. vegetation clearance, disturbance, and temporary habitat loss), rather than the specific year within the construction window in which they occur. Accordingly, any reduction in the construction duration would shorten the period over which temporary impacts occur, including disturbance and temporary habitat loss, without affecting the delivery of habitat creation measures to replace habitat loss. Therefore, the

revised construction programme does not result in a material change to the nature or magnitude of ecological effects.

- 5.2.5. Embedded mitigation and good practice measures, as secured through the **Outline Construction Environmental Management Plan (oCEMP) [Document Reference 7.1 Revision 3]**, would be implemented throughout the construction phase. These include measures such as timing of works to avoid sensitive periods for affected species, protection of retained habitats, implementation of buffers to key features, and supervision by an Ecological Clerk of Works (ECoW), where required.
- 5.2.6. In addition, the **Outline Ecological Construction Plan (oECMP) [Document Reference 7.5 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, details measures including Species Protection Plans, Reasonable Avoidance Measures (RAMs), pre-construction surveys, protected species licensing (where required), and controls relating to pollution, lighting, noise and construction activities.
- 5.2.7. Furthermore, the **Outline Landscape Ecological Management Plan (oLEMP) [Document Reference 7.6 Revision 3]** details how mitigation land will be created in advance of the onset of each relevant construction phase, ensuring impacts will be reduced further.
- 5.2.8. It is not considered that the increase to a maximum of three land parcels constructed concurrently, as set out in Section 4, would give rise to effects beyond those assessed within the ES or the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**. For the purposes of this assessment, land parcels represent the defined development areas within the Order Limits (Parcels A–E), which may be constructed either sequentially or concurrently as part of the phased build-out of the Scheme.
- 5.2.9. Whilst up to three parcels may be under construction at any one time, this represents only a proportion of the total Order Limits, with large areas remaining unaffected by construction activities at any given time. As such, the extent of habitat affected at any one time and associated disturbance effects (including noise, visual disturbance and temporary displacement of species) remain within the parameters of the worst-case scenario assessed within **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and

the Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4].

- 5.2.10. Mitigation measures would be applied consistently across all construction phases and parcels, ensuring that ecological effects are appropriately managed.
- 5.2.11. As detailed within the **oECMP [Document Reference 7.5 Revision 3]**, updated ecological surveys would be undertaken prior to construction commencing. This ensures that mitigation measures are informed by the most up to date ecological baseline conditions and would support any necessary protected species licences.
- 5.2.12. As set out in **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**, mitigation for the loss and disturbance of habitat identified as functionally linked land (FLL) for Special Protection Area (SPA) qualifying bird species includes the provision of dedicated mitigation areas, which are established and managed in advance of construction. This ensures that suitable habitat would be available prior to any loss or disturbance occurring within the Order Limits.
- 5.2.13. On this basis, the revised construction programme does not result in a material change to the nature or magnitude of ecological effects. The conclusions of **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]** remain valid, and no new or different likely significant effects are identified.

Operational Phase Assessment

- 5.2.14. Two operational scenarios have been considered under Sensitivity Test 1: Operation Scenario 1 (operation commencing in 2031) and Operation Scenario 2 (operation commencing in 2035). In both scenarios, all embedded mitigation and enhancement measures, as secured through the **oLEMP [Document Reference 7.6 Revision 3]** and **oECMP [Document Reference 7.5 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, would be fully established, functioning and subject to management during the operation of the Scheme. Therefore, there would be no change in the

Stage 1 and Stage 2 conclusions of the and **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**.

- 5.2.15. As such, the ecological baseline, habitat condition and management regime are consistent across both scenarios. The timing of the operational start date within the 2031–2035 window does not influence the nature or magnitude of ecological effects, as habitats are established during construction and early operational phases and are thereafter maintained throughout the lifetime of the Scheme.
- 5.2.16. The habitat creation and enhancement measures will ensure that a minimum of 10% Biodiversity Net Gain (BNG) is achieved irrespective of the operational scenario.
- 5.2.17. A programme of ecological monitoring is secured through the **oLEMP [Document Reference 7.6 Revision 3]**, via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, to ensure that all mitigation and enhancement measures continue to function as intended. Monitoring will be undertaken throughout the operational phase and will include the condition of created and retained habitats, the effectiveness of mitigation areas, and the success of habitat management prescriptions.
- 5.2.18. On this basis, there are no new effects or material differences in the likely significant effects between the operational scenarios. The assessment of effects for the operational phase for Sensitivity Test 1 is the same as the assessment of effects reported in **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES or the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**.

Decommissioning Phase Assessment

- 5.2.19. Two decommissioning scenarios have been considered under Sensitivity Test 1: Decommissioning Scenario 1 (commencing in 2071) and Decommissioning Scenario 2 (commencing in 2075). In both scenarios, decommissioning activities will be undertaken in accordance with a Decommissioning Environmental

Management Plan, substantially in accordance with the **Outline Decommissioning Environmental Management Plan (oDEMP) [Document Reference 7.3 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, and would be informed by updated ecological surveys and the most up to date baseline conditions.

- 5.2.20. The timing of decommissioning does not influence the nature or magnitude of ecological effects, as potential impacts are driven by the nature and extent of decommissioning activities rather than the specific year in which they occur.
- 5.2.21. Measures to avoid and minimise ecological effects during decommissioning, including appropriate timing of works, protection of retained habitats, and implementation of best practice measures, are secured through the **oDEMP [Document Reference 7.3 Revision 3]**, as secured by Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, and are applied consistently under both scenarios.
- 5.2.22. On this basis, there are no new effects or material differences in the likely significant effects between the decommissioning scenarios. The assessment of effects for the decommissioning phase for Sensitivity Test 1 is the same as the assessment of effects reported in **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.2.23. The ES included an assessment of cumulative effects within a standalone chapter, considering the Scheme in combination with other relevant plans and projects. The conclusions of that assessment were based on the worst-case construction, operational and decommissioning scenarios for the Scheme. Cumulative effects were also considered within the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**.
- 5.2.24. Sensitivity Test 1 does not introduce any new types of impact, receptors or pathways for cumulative effects. The changes considered relate solely to the timing and phasing of the Scheme (i.e. construction programme and

operational/decommissioning start dates), rather than changes to the nature or extent of the Scheme itself.

- 5.2.25. As such, the potential for cumulative effects is not materially influenced by the revised construction programme or the variation in operational and decommissioning timing. Any potential revised temporal overlap would not exceed the conditions already assessed. The duration, scale and nature of effects remain consistent with those assessed in the **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]**, and embedded mitigation secured through the **oECMP [Document Reference 7.5 Revision 3]**, **oLEMP [Document Reference 7.6 Revision 3]** and **oDEMP [Document Reference 7.3 Revision 3]**, via Schedule 2 of the draft Development Consent Order **[Document Reference 3.1 Revision 4]**, continues to apply.
- 5.2.26. On this basis, there is no material change to the cumulative effects assessment presented in the **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]**, and the conclusions remain valid. No new or different likely significant cumulative effects are identified.

Conclusion

- 5.2.27. Sensitivity Test 1 does not result in any material change to the ecological assessment presented within the ES.
- 5.2.28. The revised construction programme, including a 36-month construction period and the potential for up to three land parcels being constructed concurrently, remains within the bounds of the previously assessed worst-case scenario. Embedded mitigation and good practice measures secured through the **oECMP [Document Reference 7.5 Revision 3]** via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, will continue to ensure that ecological effects during construction will be effectively managed for Sensitivity Test 1.
- 5.2.29. Furthermore, in line with the **oECMP [Document Reference 7.5 Revision 3]** updated ecological surveys to be undertaken prior to construction will ensure that species protection measures remain appropriate and based on up to date baseline data.

- 5.2.30. Across the operational and decommissioning phases, the timing variations introduced by Sensitivity Test 1 do not alter the nature, magnitude or significance of ecological effects. Mitigation, enhancement, and monitoring measures secured through the **oECMP [Document Reference 7.5 Revision 3]**, **oLEMP [Document Reference 7.6 Revision 3]** and **oDEMP [Document Reference 7.3 Revision 3]**, via Schedule 2 of the **draft DCO [Document Reference 3.1 Revision 4]**, ensure that ecological receptors are protected and that habitat creation and management remain effective throughout the lifecycle of the Scheme.
- 5.2.31. No new pathways for cumulative effects are introduced, and the conclusions of the cumulative assessment within the ES remain valid for Sensitivity Test 1.
- 5.2.32. Overall, Sensitivity Test 1 does not give rise to any new or different likely significant ecological effects. The findings and conclusions of the **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]** therefore remain robust and applicable, and no changes to the proposed mitigation and enhancement measures are necessary.

5.3. Cultural Heritage and Archaeology

Methodology

- 5.3.1. This section of Sensitivity Test 1 assessment considers the direct and indirect effects to cultural heritage and archaeology arising from a shorter construction phase and greater number of land parcels being constructed at the same time than that considered in **ES Chapter 8 Cultural Heritage and Archaeology: [Document Reference 6.2.8 Revision 2]** of the ES.
- 5.3.2. Direct effects have been scoped out of both the Operational Phase and Decommissioning Phase assessments as no impacts to the archaeological resource within the Order Limits are expected following the conclusion of the Construction Phase.
- 5.3.3. Indirect effects arising from the Operational Phase and Decommissioning Phase have been assessed in relation to the scenarios identified.
- 5.3.4. The general methodology set out above in 'Section 3 – Methodology' of this Report is not repeated here. It is confirmed that the Cultural Heritage and Archaeology impacts identified in this assessment are not affected by a specific construction year starting between January 2028 – December 2032 and therefore a potential construction window between January 2028 – December 2035, and the conclusions reached will apply for any year within the construction window.

Construction Phase Assessment

Direct Effects

- 5.3.5. There would be no changes to the level of effect upon archaeological assets within the Order Limits detailed in **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** arising as a result of the potential shorter construction period for a single connection date.
- 5.3.6. The change in connection date and 36-month construction period would not result in additional significant effects when compared to the assessment set out in **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** as the ES considered a worst-case scenario of total loss to assets within those parts of the Order Limits identified for the construction of

the most intrusive works and the direct effects upon the below-ground archaeology are not altered by the speed at which the Scheme is constructed.

Indirect Effects

- 5.3.7. Indirect effects upon built heritage assets and historic landscapes arising from the potential shorter 36-month construction phase have been considered carefully.
- 5.3.8. The increase to development of three parcels concomitantly from the previously considered two parcels will result in a slight increase in construction noise and traffic which would increase the scale of harm slightly higher on the spectrum of less than substantial harm than was identified in the ES although still at the lower end of this spectrum. However, the reduction of the construction programme by 18 months will lead to an improvement in relation to the assessment set out in the **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** as the reduced duration of works will lead to a shorter period of adverse effect.
- 5.3.9.** Considering the balance of slightly more intense construction activity over a shorter time period the change in connection date and 36-month construction phase would not result in any materially different significant effects when compared to the assessment presented in **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]**.

Operational Phase Assessment

- 5.3.10. No direct impacts upon the buried archaeological remains are anticipated following the completion of the Scheme construction as there will be no additional ground disturbance arising from the operational phase meaning below ground archaeological remains will be unaffected. As such, and in line with the position taken in the ES assessment, these receptors are scoped out of discussion as part of the Operational Phase in both Operational Scenario 1 and Operational Scenario 2.

Operational Scenario 1 & 2

- 5.3.11. There are no changes to the indirect effects that have been identified within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8**

Revision 2] in relation to four designated built heritage assets (Dirtness Cottage; Dirtness Pumping Station; Grove House Farmhouse, and Sandhill Farmhouse), three non-designated built heritage assets (Belton Grange; Dale Mount Farm, and Drain House Farm) and an area of Special Historic Landscape Interest (the Isle of Axholme) in relation to Operational Scenario 1 & 2. This is because the indirect effects on built heritage assets and historic landscapes arise primarily from the presence, form and visibility of the operational Scheme within the surrounding landscape, rather than the specific year in which the Scheme becomes operational. Operational Scenarios 1 & 2 do not introduce any changes to the design, layout, scale, or physical footprint of the Scheme, nor do they alter the relationship between the Scheme and identified heritage receptors. As such, there are no new or altered pathways for effect, and the magnitude of change experienced by receptors remains the same as that assessed in the ES. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES. There are no additional effects beyond those identified in the ES and none of these are considered to be significant.

Decommissioning Phase Assessment

- 5.3.12. No direct impacts upon the buried archaeological remains are anticipated following the completion of the Scheme construction. Archaeological remains within Order Limits will have been subject to mitigation by record or preservation in situ during the construction phase as detailed in the **Outline Archaeological Mitigation Strategy [Document Reference 6.3.8.6 Revision 2]**. Mitigation measures to safeguard recorded areas of archaeological remains subject to preservation in situ are also detailed in the **oDEMP [Document Reference 7.3 Revision 3]**. As such, these receptors are scoped out of assessment as part of the Decommissioning Phase in both Decommissioning Scenario 1 and Decommissioning Scenario 2.

Decommissioning Scenario 1 & 2

- 5.3.13. There are no changes to the indirect effects that have been identified within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** in relation to four designated built heritage assets (Dirtness Cottage; Dirtness Pumping Station; Grove House Farmhouse, and Sandhill Farmhouse),

three non-designated built heritage assets (Belton Grange; Dale Mount Farm, and Drain House Farm) and an area of Special Historic Landscape Interest (the Isle of Axholme) in relation to Decommissioning Scenario 1 & 2. This is because the indirect effects on built heritage assets and historic landscapes arise primarily from the presence, form and visibility of the operational Scheme within the surrounding landscape, rather than the specific year in which the Scheme is decommissioned. Decommissioning Scenarios 1 & 2 do not introduce any changes to the design, layout, scale, or physical footprint of the Scheme, nor do they alter the relationship between the Scheme and identified heritage receptors. As such, there are no new or altered pathways for effect, and the magnitude of change experienced by receptors remains the same as that assessed in the ES. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES. There are no additional effects beyond those identified in the ES and none of these are considered to be significant.

Cumulative Effects

- 5.3.14. The submitted assessment of cumulative and in-combination effects in relation to cultural heritage and archaeology identified no significant effects would arise. This assessment can be found within **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.
- 5.3.15. This additional assessment has considered the different construction timing and both the operational and decommissioning scenarios and has not identified any changes that would lead to additional cumulative or in-combination effects or increase the identified less than substantial harm to such a degree as to result in a significant effect. Cumulative effects are primarily influenced by the scale and nature of development rather than precise timing of overlap; these parameters remain unchanged. Any potential revised temporal overlap would not exceed the conditions already assessed.

Conclusion

- 5.3.16. This assessment has identified that the potential variations to the methodology followed during the construction phase will not result in changes to the level of

effect identified within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]**.

- 5.3.17. Direct effects were scoped out of both the operational and decommissioning assessments.
- 5.3.18. Consideration of both Operational Scenario 1 and Operational Scenario 2 identified no changes to the indirect effects presented within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** in relation to four designated built heritage assets, three non-designated built heritage assets and an area of Special Historic Landscape Interest. There are no significant effects identified.
- 5.3.19. Consideration of both Decommissioning Scenario 1 and Decommissioning Scenario 2 identified no changes to the indirect effects presented within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** in relation to four designated built heritage assets, three non-designated built heritage assets and an area of Special Historic Landscape Interest. There are no significant effects identified.

5.4. Ground Conditions

Methodology

- 5.4.1. The methodology of Sensitivity Test 1 is set out in Section 4 of this report and is not therefore repeated.
- 5.4.2. Ground Conditions are not sensitive to specific construction years within the Sensitivity Test 1 window (January 2028 – December 2035). Underlying geological, geotechnical, hydrogeological and contamination conditions remain unchanged throughout this period. Accordingly, any year within this construction window represents a suitable worst-case scenario, and the conclusions of this assessment apply equally across the full range of potential construction start dates.
- 5.4.3. Assessment has therefore focused on whether the revised construction duration (36 months), increased number of concurrent land parcels (up to three) and amended operational and decommissioning dates would alter the effects reported in the ES assessment.

Construction Phase Assessment

- 5.4.4. Under Sensitivity Test 1, construction could occur within any 36-month period between 2028 and 2035, with up to three land parcels under development simultaneously.
- 5.4.5. For ground conditions, the potential impacts during construction relate to disturbance and/ or loss of topsoil and subsoil, inaccessibility of mineral resources, stability considerations associated with peat, potential encounter and/or migration of localised contamination, ground gas generation, alteration of shallow groundwater conditions, unexploded ordnance and disturbance of contamination and polluting materials and run-off to water courses.
- 5.4.6. Increasing the number of concurrent parcels under construction does not fundamentally alter these pathways. The embedded mitigation measures detailed within the ES assessment, including the **oCEMP [Document Reference 7.1 Revision 3]**, The Construction (Design and Management) Regulations 2015, risk assessments and UXO assessment, continue to provide adequate control of risks under this scenario.

- 5.4.7. There is no reasonable pathway by which a shift in the construction year or a reduction in programme would intensify or introduce new ground condition effects. The magnitude, extent and significance of impacts remain negligible (not significant) as reported in the ES assessment.

Operational Phase Assessment

Operational Scenario 1 & 2

- 5.4.8. The ground conditions are unaffected by changes to the operational start year under either Operational Scenario 1 (2031) or Operational Scenario 2 (2035). During operation, the Scheme does not involve ground intrusive activities and gives rise to only minimal interaction with underlying soils or groundwater.
- 5.4.9. All ground stability risks are addressed and engineered out during construction. No ongoing soil disturbance is envisaged during operation, and sealed systems or hardstanding areas are unlikely to introduce new contamination pathways. Likewise, no changes to ground-gas pathways are anticipated, and there is minimal potential for any alteration to infiltration or surface-runoff patterns.
- 5.4.10. Both Operational Scenarios 1 & 2 therefore result in identical outcomes. The negligible residual effects identified in the ES assessment remain valid and unchanged. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

Decommissioning Scenario 1 & 2

- 5.4.11. Under Sensitivity Test 1, decommissioning could occur over a 24 month period between 2071 and 2075; Decommissioning Scenario 1 (commencing in 2071) and Decommissioning Scenario 2 (commencing in 2075). The assessment below does not differ for Decommissioning Scenario 1 or 2.
- 5.4.12. Decommissioning is expected to comprise shallow excavation (<1m bgl) to remove infrastructure and reinstatement of soils utilising banded topsoil from the initial stripped areas. This scope does not differ between the decommissioning scenarios.

- 5.4.13. The change in timing does not alter ground conditions and the potential risks remains the same including the minor disturbances of soils, possible encounter of previously unidentified contamination, localised ground gas exposure to workers and interactions with shallow groundwater.
- 5.4.14. These impacts remain temporary, low in magnitude and controllable through general principles set out in the **oDEMP [Document Reference 7.3 Revision 3]**, secured via Schedule 2 of the **draft DCO [Document Reference 3.1 Revision 4]**. Therefore, decommissioning effects remain negligible, consistent with the ES assessment. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.
- 5.4.15. Cumulative Effects
- 5.4.16. Cumulative effects relating to ground conditions typically involve the interaction with other concurrent ground disturbing developments, the cumulative changes in groundwater or soil stability from overlapping earthworks, and combined contamination or mobilisation impacts.
- 5.4.17. As the Sensitivity Test 1 does not alter the physical footprint, type of activities or nature of ground interactions, only the timing, there is no pathway by which cumulative ground condition effects could increase relative to the ES assessment baseline.
- 5.4.18. The cumulative assessment and conclusions of the ES assessment remain unchanged. No materially new or materially different cumulative impacts arise under Sensitivity Test 1.
- 5.4.19. Conclusion
- 5.4.20. The changes considered under Sensitivity Test 1, including revised construction window, increased number of land parcels under construction concurrently, and changes to operational and decommissioning dates, does not change the outcomes of the ground conditions assessment presented in the ES.
- 5.4.21. All residual effects remain negligible (not significant), and no new significant environmental effects are introduced.

5.5. Water Resources

Methodology

- 5.5.1. This Sensitivity Test 1 assessment considers the implications of a revised single connection date (and therefore construction, operational and decommissioning programmes) on the findings of **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**. The methodology of Sensitivity Test 1 is set out in Section 3 of this report and is not therefore repeated.
- 5.5.2. **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** identifies the potential impacts on the water environment from the construction, operation and decommissioning of the Scheme.
- 5.5.3. **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** defines four main events with the potential to impact the water environment because of the Scheme. These events include:
- Erosion/sediment movement.
 - Chemical/pollution events.
 - Alternation/interruption of surface water flows.
 - Alteration/interruption of ground water flows.
- 5.5.4. In terms of defining the worst case scenario for assessment within this Sensitivity Test 1, the construction period could commence earliest January 2028 and latest December 2032, with the 36 month construction period within the window between January 2028 and December 2035. It is considered that the impact on the water environment would not change with different construction years within this period.
- 5.5.5. The conclusions of this Sensitivity Test 1 apply for any year within the construction window of January 2028 to December 2035.

Construction Phase Assessment

- 5.5.6. A qualitative assessment has been completed to consider the implications of a revised construction phase on water resources. A qualitative assessment is considered appropriate, noting that **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** also included a qualitative assessment of the construction phase.

- 5.5.7. From a construction point of view, **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** considers the effects on flood risk and drainage and water resources during the construction phase of the Scheme.
- 5.5.8. **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** defines a worst-case construction phase with a 54-month built out period where multiple land parcels are developed concurrently (up to two at the same time).
- 5.5.9. Sensitivity Test 1 requires consideration of a reduced construction timescale of 36 months where up to three land parcels are developed at the same time.
- 5.5.10. The reduced 36-month construction period and addition of an extra land parcel being developed concurrently as part of Sensitivity Test 1 is not considered to change the assessment within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** or associated conclusions. The justification for this conclusion is provided below.
- 5.5.11. In terms of the effects on flood risk and drainage during the construction phase, the reduced construction period from 54 months to 36 months and development of up to three land parcels at a time, rather than two, has the potential to have a greater impact on mud and debris arising, in the area of temporary hardstanding within the Order Limits and in the number of culverts installed within the Order Limits at the same time. It is however considered that proposed mitigation measures including the temporary drainage network to be installed prior to commencement of construction and the silt management and control measures in the **oCEMP [Document Reference 7.1 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, will manage these potential effects and ensure no change to the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** in terms of the effects on flood risk and drainage during the construction phase.
- 5.5.12. In terms of the effects on water resources during the construction phase, the reduced construction period from 54 months to 36 months and development of up to three land parcels at a time, rather than two, has the potential to increase the area of temporary access tracks within the Order Limits, the amount of soil erosion associated with shallow road excavations and potential for leaks and spillages. It is however considered that proposed mitigation measures including the temporary drainage network to be installed prior to commencement of

construction, silt management and control measures in the **oCEMP [Document Reference 7.1 Revision 3]** and the measures to control the storage, handling and disposal of pollutants to be put in place prior to and during construction will manage these potential effects and ensure no change to the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** in terms of the effects on water resources during the construction phase.

- 5.5.13. Therefore, based on the above, the assessment and conclusions set out for the construction phase for **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** remain robust and unchanged.

Operational Phase Assessment

- 5.5.14. Within Sensitivity Test 1, there are two possible operational scenarios, with the Scheme's 40 year operational lifetime; Operation Scenario 1 starting in 2031 (one year earlier than assumed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** of the ES) or Operation Scenario 2 in 2035 (three years later than assumed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**). The full operational phase of 40 year remains unchanged from **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** in both scenarios.
- 5.5.15. Following consideration of both operational scenarios, it is concluded that both scenarios can undergo the same assessment and that the same conclusions would apply to both scenarios. This conclusion is reached on the basis that both scenarios involve minor time differences of either 1 year earlier or 3 years later. Such minor time differences, in either direction, will not alter the potential effects on flood risk and drainage or water resources that have been assessed within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**. As the potential effects are considered the same for both scenarios, the proposed mitigation measures will also apply to both scenarios. The conclusions of this Sensitivity Test 1 apply to a 40 year operational phase from either 2031 or 2035.
- 5.5.16. A qualitative assessment has been completed to consider the implications of two possible operational phase scenarios on water resources.
- 5.5.17. From an operational phase point of view, **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** considers the effects on flood risk and

drainage and water resources during the operational phase of the Scheme. Neither of the revised start dates for the operational phase reviewed are considered to change the assessment within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** or associated conclusions. The justification for this conclusion is provided below.

- 5.5.18. In terms of the effects on flood risk and drainage during the operational phase of the Scheme starting one year earlier in 2031 or three years later in 2035 is considered to be negligible. Regardless of the date the operation phase begins, a surface water drainage strategy will be implemented to manage surface water runoff rates and associated flood risk, any proposed culverts will be designed to ensure flow patterns and associated flood risk are not impacted and PV modules and infrastructure will have their lowest edge raised above the modelled 1 in 1,000 year flood level plus 100mm of freeboard to ensure the site remains safe and operational. These mitigation measures, detailed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** and within **ES Appendix 10.1 Flood Risk Assessment [Document Reference: 6.3.10.1 Revision 3]** will be implemented under both operational scenarios, ensuring no change to the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**.
- 5.5.19. It is acknowledged that with Operation Scenario 2, where the operational phase would begin in 2035 (three years later than assumed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**), the Scheme would remain operational until a date three years later than assessed within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**. It is however considered that the assessment of flood risk and drainage included within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** is suitably conservative and includes a sufficient allowance for climate change that a minor shift by three years is considered to result in no change to the conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**. As detailed within paragraph 5.10 and 5.40 of **ES Appendix 10.1 Flood Risk Assessment [Document Reference: 6.3.10.1 Revision 3]**, flood risk mitigation measures are defined using a 1 in 1,000 year flood event which is a greater event than the required design event inclusive of climate change. This event is therefore still considered a precautionary approach if the operational phase would begin in 2035 (three years later than assumed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**). The climate change

allowance included within the Outline Surface Water Drainage Strategy included within **ES Appendix 10.1 Flood Risk Assessment [Document Reference: 6.3.10.1 Revision 2]** also remains appropriate in using a 40% rainfall climate change allowance. The 40% climate change allowance reflects the upper end climate change allowance for the Idle and Torne Management catchment for the 2070s epoch which should be used for development with a lifetime between 2061 and 2125 and is suitable for both Sensitivity Test 1 scenarios.

- 5.5.20. In terms of the effects on water resources, the effect of the operational phase of the Scheme starting one year earlier in 2031 or three years later in 2035 is considered to be negligible. Regardless of the date the operation phase begins, surface water runoff will be directed to sustainable drainage systems (SuDS) within the Order Limits which will provide water quality treatment and mitigate the risk of water pollution. Ongoing maintenance of SuDS over the operational lifetime will also be implemented within the Order Limits for both operational scenarios. These mitigation measures, detailed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** will be implemented under both operational scenarios, ensuring no change to the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**.
- 5.5.21. The only difference between Operation Scenarios 1 and 2 is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

- 5.5.22. As detailed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**, the likely significant effects of the Scheme during decommissioning are likely to be similar to those encountered during construction due to the nature of the operations being the same.
- 5.5.23. As with the **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**, this Sensitivity Test 1 therefore concludes the effects considered for construction are similarly expected during the decommissioning phase.
- 5.5.24. As discussed above, Sensitivity Test 1 is considered to have no impact on the assessment or conclusions within **ES Chapter 10: Water Resources [Document**

Reference 6.1.10 Revision 2] in terms of construction. The same conclusion is reached for the decommissioning phase.

- 5.5.25. There is considered to be no material impact on water resources depending on whether the 24-month decommissioning stage starts one year earlier than assumed in the **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** for Decommissioning Scenario 1 (commencing in 2071) or three years later than assumed in the **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** for Decommissioning Scenario 2 (commencing in 2075). The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.5.26. The construction, operational and decommissioning phases assessed within this Sensitivity Test 1 assessment are considered to have no impact on the previous cumulative assessment (**ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** of the ES). The Zone of Influence (Zoi) and identified developments within the Zoi remain unchanged, as does the requirement for the identified developments to manage water resources, flood risk and drainage to ensure they do not have a negative impact at the sites themselves or elsewhere. Cumulative effects are primarily influenced by the scale and nature of development rather than precise timing of overlap; these parameters remain unchanged. Any potential revised temporal overlap would not exceed the conditions already assessed.

Conclusion

- 5.5.27. It is concluded that the construction, operational and decommissioning scenarios considered in this Sensitivity Test 1 do not change the assessment or conclusions drawn in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**, and the assessment remains robust.

5.6. Socio Economics

Methodology

- 5.6.1. The methodology of Sensitivity Test 1 is set out in Section 4 of this report and is not therefore repeated.
- 5.6.2. For the socioeconomic assessment within – **ES Chapter 11: Socio Economics [APP-048]**, the outcome is not affected by the year in which construction begins. Therefore, the conclusion of the assessment will apply for any year applied where construction starts between January 2028 – December 2032 with a potential construction window of 36 months between January 2028 – December 2035.
- 5.6.3. However, the change in approach regarding the possibility of up to three parcels coming forward rather than up to two would alter the number of peak construction workers. In order to assess this impact, analysis of the accommodation sector is undertaken in the way it was in the ES but with the new peak worker number.

Construction Phase Assessment

Employment and Economic Contribution

- 5.6.4. Sensitivity Test 1 results in no change in respect of the assessment of effects on employment. The number of construction jobs supported by the Scheme would not change under a three-year build timeframe.
- 5.6.5. The number of construction jobs is an average of the requirement for land parcels A to E, equating to 176, which remains the same regardless of the number of years the construction phase may last for. The same methodology regarding displacement and leakage would still apply, thus resulting in a net direct employment figure of 99 jobs.
- 5.6.6. Consequently, there is no change to economic contribution during the construction phase as this effect is based on an annual uplift in gross value added associated with the construction jobs rather than the total figure generated across the build timeframe.

Accommodation Demand

- 5.6.7. The assessment within **ES Chapter 11: Socio Economics [APP-048]** assumed that a maximum of two parcels would be brought forward simultaneously. A worst case assumed that this would mean that the two largest parcels would be built at the same time, and by association the two largest number of required construction workers. As such, the assumed peak number of workers assessed during the construction phase equated to 483 workers. Under Sensitivity Test 1, a maximum of three parcels could be brought forward concurrently, which would result in a peak number of workers of 654 workers during the construction phase. This peak is based on the assumption that the three parcels brought forward are the three largest.

Accommodation Demand Effect on Visitors

- 5.6.8. **ES Chapter 11: Socio Economics [APP-048]** found that there was a minor to moderate adverse effect on accommodation demand on visitors, which is not significant. This effect remains the same for Sensitivity Test 1. In the unlikely event that the peak number of workers associated with three parcels coming forward simultaneously would require accommodation in an individual authority's area, each authority would have sufficient capacity to accommodate this need in all months of the year. Similarly, if workers associated with three parcels were accommodated across all three districts (Doncaster, North Lincolnshire, and East Riding of Yorkshire), there would be sufficient capacity in all months of the year for workers as well as for additional tourist visits. Further detail is set out in the **Tables 5.6-1 to 5.6-8** below.

- 5.6.9. The conclusions of this Sensitivity Test 1 in relation to accommodation demand effects on visitors during construction, are the same as the conclusions set out in **ES Chapter 11: Socio Economics [APP-048]** (see tables 11.20-11.23) and apply for any year within the construction window of January 2028 to December 2035.

Accommodation Demand Effect on Local Tourism Sector

- 5.6.10. In respect of the accommodation demand effect on the local tourism sector associated with Sensitivity Test 1, the same assumption is applied as in **ES Chapter 11: Socio Economics [APP-048]**, whereby, it is assumed that there would be a 'medium' level of leakage (25% leakage). As such, the absolute worst case in terms of accommodation demand effect on the local tourism sector during the construction phase for Sensitivity Test 1 is assumed to be associated

with the need to accommodate 25% of 654 peak construction workers, which equates to 164 workers.

- 5.6.11. Applying this amount to bedspaces, as per the 2016 Accommodation Stock Audit published by Visit Britain, it is shown that there would be spare capacity of bedspaces throughout the year following the accommodation of workers, both for each district in isolation and for all three districts combined, in respect of Sensitivity Test 1.
- 5.6.12. As per **ES Chapter 11: Socio Economics [APP-048]**, Sensitivity Test 1 indicates that during the construction phase the local tourism industry would benefit from an uplift in occupancy as a result of workers being sourced from outside the local area and accommodated in serviced and non-serviced accommodation, albeit not a sufficiently different uplift to change the magnitude and significance of effect.
- 5.6.13. The conclusions of this Sensitivity Test 1 in relation to accommodation demand effects on the local tourism sector during construction, which are the same as the conclusions set out in **ES Chapter 11: Socio Economics [APP-048]** (see tables 11.24-11.27), apply for any year within the construction window of January 2028 to December 2035.

Table 5.6–1 Assumed Occupancy of Accommodation including construction workers in Doncaster – Effect on Visitors

Total number of bedspaces	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888
Actual number of bedspaces occupied	3,460	3,983	4,437	4,781	4,905	5,153	5,277	5,042	4,988	4,782	4,438	3,914
Total available bedspaces	3,428	2,905	2,451	2,107	1,983	1,735	1,611	1,846	1,900	2,106	2,450	2,974
Estimated no. construction workers	654	654	654	654	654	654	654	654	654	654	654	654
Construction workers + occupied bedspaces	4,114	4,637	5,091	5,435	5,559	5,807	5,931	5,696	5,642	5,436	5,092	4,568
Room occupancy incl. construction workers	60%	67%	74%	79%	81%	84%	86%	83%	82%	79%	74%	66%
Actual remaining bedspaces	2,774	2,251	1,797	1,453	1,329	1,081	957	1,192	1,246	1,452	1,796	2,320

Table 5.6-2: Assumed Occupancy of Accommodation including construction workers in North Lincolnshire – Effect on Visitors

Total number of bedspaces	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508
Actual number of bedspaces occupied	1,053	1,218	1,638	2,030	2,151	2,320	2,514	2,510	2,207	1,885	1,493	1,183
Total available bedspaces	2,455	2,290	1,870	1,478	1,357	1,188	994	998	1,301	1,623	2,015	2,325
Estimated no. construction workers	654	654	654	654	654	654	654	654	654	654	654	654
Construction workers + occupied bedspaces	1,707	1,872	2,292	2,684	2,805	2,974	3,168	3,164	2,861	2,539	2,147	1,837
Room occupancy incl. construction workers	49%	53%	65%	77%	80%	85%	90%	90%	82%	72%	61%	52%
Actual remaining bedspaces	1,801	1,636	1,216	824	703	534	340	344	647	969	1,361	1,671

Table 5.6-3: Assumed Occupancy of Accommodation including construction workers in East Riding of Yorkshire – Effect on Visitors

Total number of bedspaces	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215
Actual number of bedspaces occupied	7,336	8,484	11,161	13,644	14,414	15,514	16,725	16,641	14,781	12,763	10,280	8,251
Total available bedspaces	15,879	14,731	12,054	9,571	8,801	7,701	6,490	6,574	8,434	10,452	12,935	14,964
Estimated no. construction workers	654	654	654	654	654	654	654	654	654	654	654	654
Construction workers + occupied bedspaces	7,990	9,138	11,815	14,298	15,068	16,168	17,379	17,295	15,435	13,417	10,934	8,905
Room occupancy incl. construction workers	34%	39%	51%	62%	65%	70%	75%	74%	66%	58%	47%	38%
Actual remaining bedspaces	15,225	14,077	11,400	8,917	8,147	7,047	5,836	5,920	7,780	9,798	12,281	14,310

Table 5.6-4: Assumed Occupancy of Accommodation including construction workers in three authorities combined – Effect on Visitors

Total number of bedspaces	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611
Actual number of bedspaces occupied	11,848	13,685	17,236	20,455	21,470	22,988	24,516	24,193	21,976	19,430	16,211	13,349
Total available bedspaces	21,763	19,926	16,375	13,156	12,141	10,623	9,095	9,418	11,635	14,181	17,400	20,262
Estimated no. construction workers	654	654	654	654	654	654	654	654	654	654	654	654
Construction workers + occupied bedspaces	12,502	14,339	17,890	21,109	22,124	23,642	25,170	24,847	22,630	20,084	16,865	14,003
Room occupancy incl. construction workers	37%	43%	53%	63%	66%	70%	75%	74%	67%	60%	50%	42%
Actual remaining bedspaces	21,109	19,272	15,721	12,502	11,487	9,969	8,441	8,764	10,981	13,527	16,746	19,608

Table 5.6-5: Assumed Occupancy of Accommodation including construction workers in Doncaster – Effect on Local Tourism Sector

Total number of bedspaces	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888
Actual number of bedspaces occupied	3,460	3,983	4,437	4,781	4,905	5,153	5,277	5,042	4,988	4,782	4,438	3,914
Total available bedspaces	3,428	2,905	2,451	2,107	1,983	1,735	1,611	1,846	1,900	2,106	2,450	2,974
Estimated no. construction workers	164	164	164	164	164	164	164	164	164	164	164	164
Construction workers + occupied bedspaces	3,624	4,147	4,601	4,945	5,069	5,317	5,441	5,206	5,152	4,946	4,602	4,078
Room occupancy incl. construction workers	53%	60%	67%	72%	74%	77%	79%	76%	75%	72%	67%	59%
Actual remaining bedspaces	3,264	2,741	2,287	1,943	1,819	1,571	1,447	1,682	1,736	1,942	2,286	2,810

Table 5.6–6: Assumed Occupancy of Accommodation including construction workers in North Lincolnshire – Effect on Local Tourism Sector

Total number of bedspaces	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508
Actual number of bedspaces occupied	1,053	1,218	1,638	2,030	2,151	2,320	2,514	2,510	2,207	1,885	1,493	1,183
Total available bedspaces	2,455	2,290	1,870	1,478	1,357	1,188	994	998	1,301	1,623	2,015	2,325
Estimated no. construction workers	164	164	164	164	164	164	164	164	164	164	164	164
Construction workers + occupied bedspaces	1,217	1,382	1,802	2,194	2,315	2,484	2,678	2,674	2,371	2,049	1,657	1,347
Room occupancy incl. construction workers	35%	39%	51%	63%	66%	71%	76%	76%	68%	58%	47%	38%
Actual remaining bedspaces	2,291	2,126	1,706	1,314	1,193	1,024	830	834	1,137	1,459	1,851	2,161

Table 5.6-7: Assumed Occupancy of Accommodation including construction workers in East Riding of Yorkshire – Effect on Local Tourism Sector

Total number of bedspaces	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215
Actual number of bedspaces occupied	7,336	8,484	11,161	13,644	14,414	15,514	16,725	16,641	14,781	12,763	10,280	8,251
Total available bedspaces	15,879	14,731	12,054	9,571	8,801	7,701	6,490	6,574	8,434	10,452	12,935	14,964
Estimated no. construction workers	164	164	164	164	164	164	164	164	164	164	164	164
Construction workers + occupied bedspaces	7,500	8,648	11,325	13,808	14,578	15,678	16,889	16,805	14,945	12,927	10,444	8,415
Room occupancy incl. construction workers	32%	37%	49%	59%	63%	68%	73%	72%	64%	56%	45%	36%
Actual remaining bedspaces	15,715	14,567	11,890	9,407	8,637	7,537	6,326	6,410	8,270	10,288	12,771	14,800

Table 5.6–8: Assumed Occupancy of Accommodation including construction workers in three authorities combined – Effect on Local Tourism Sector

Total number of bedspaces	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611
Actual number of bedspaces occupied	11,848	13,685	17,236	20,455	21,470	22,988	24,516	24,193	21,976	19,430	16,211	13,349
Total available bedspaces	21,763	19,926	16,375	13,156	12,141	10,623	9,095	9,418	11,635	14,181	17,400	20,262
Estimated no. construction workers	164	164	164	164	164	164	164	164	164	164	164	164
Construction workers + occupied bedspaces	12,012	13,849	17,400	20,619	21,634	23,152	24,680	24,357	22,140	19,594	16,375	13,513
Room occupancy incl. construction workers	36%	41%	52%	61%	64%	69%	73%	72%	66%	58%	49%	40%
Actual remaining bedspaces	21,599	19,762	16,211	12,992	11,977	10,459	8,931	9,254	11,471	14,017	17,236	20,098

Operational Phase Assessment

- 5.6.14. It is not expected that the operational phase assessment would change from the assessment within **ES Chapter 11: Socio Economics [APP-048]**. The significance of effect associated with employment (negligible effect due to no full time employment generated) and business rates (major beneficial due to considerable uplift in revenue) would remain the same regardless of which years are covered by the operational phase, whether that be operation starting in Operation Scenario 1 (operation commencing in 2031) or Operation Scenario 2 (operation commencing in 2035). The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

Employment and Economic Contribution

- 5.6.15. Sensitivity Test 1 results in no change in respect of the assessment of effects on employment and economic contribution during the decommissioning phase, For Decommissioning Scenario 1 (commencing in 2071) and Decommissioning Scenario 2 (commencing in 2075).

Accommodation Demand

- 5.6.16. Socioeconomic effects during the decommissioning phase would not be affected by a different decommissioning phase start date. However, the assessment of effects on accommodation demand is based on the figures used during the construction phase. More specifically, **ES Chapter 11: Socio Economics [APP-048]** assesses the decommissioning phase peak as being 50% of the construction phase (242 workers). The same assumption applies, however given the construction phase peak would increase to 654, the decommissioning phase peak would increase to 327 for Sensitivity Test 1. This approach has been taken to ensure consistency with the ES methodology and is highly precautionary.

Accommodation Demand Effect on Visitors

- 5.6.17. **ES Chapter 11: Socio Economics [APP-048]** found that there was a minor to moderate adverse effect on accommodation demand on visitors, which is not significant. This effect remains the same for Sensitivity Test 1. In the unlikely event that the assumed maximum number of workers would require accommodation during decommissioning phase in an individual authority, each authority would have sufficient capacity to accommodate this need in all months of the year. Similarly, if workers were accommodated across all three districts, there would be sufficient capacity in all months of the year for workers and for additional tourist visits. Further detail is set out in the Tables **5.6-9 to 5.6-16** below.
- 5.6.18. The conclusions of this Sensitivity Test 1 in relation to accommodation demand effects on visitors during decommissioning, which are the same as the conclusions set out in **ES Chapter 11: Socio Economics [APP-048]** (see tables 11.28-11.31), apply for any year within the construction window of January 2028 to December 2035.

Accommodation Demand Effect on Local Tourism Sector

- 5.6.19. In respect of the accommodation demand effect on the local tourism sector associated with Sensitivity Test 1, the same assumption is applied as in **ES Chapter 11: Socio Economics [APP-048]**, whereby it is assumed that there would be a 'medium' level of leakage (25% leakage). As such, the absolute worst case in terms of accommodation demand effect on the local tourism sector during the decommissioning phase for Sensitivity Test 1 is assumed to be associated with the need to accommodate 25% of 327 peak decommissioning workers, which equates to 82 workers.
- 5.6.20. Applying this amount to bedspaces, it is shown that there would be spare capacity of bedspaces throughout the year following the accommodation of workers, both for each district in isolation and for all three districts combined, in respect of Sensitivity Test 1.
- 5.6.21. As per **ES Chapter 11: Socio Economics [APP-048]**, Sensitivity Test 1 indicates that during the decommissioning phase the local tourism industry would benefit from an uplift in occupancy as a result of workers being sourced from outside the local area and accommodated in serviced and non-serviced accommodation, albeit not a sufficiently different uplift to change the magnitude and significance of effect.

5.6.22. The conclusions of this Sensitivity Test 1 in relation to accommodation demand effects on the local tourism sector during decommissioning, which are the same as the conclusions set out in **ES Chapter 11: Socio Economics [APP-048]** (see tables 11.32-11.35), apply for any year within the construction window of January 2028 to December 2035.

Table 5.6-9: Assumed Occupancy of Accommodation including decommissioning phase workers in Doncaster – Effect on Visitors

Total number of bedspaces	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888
Actual number of bedspaces occupied	3,460	3,983	4,437	4,781	4,905	5,153	5,277	5,042	4,988	4,782	4,438	3,914
Total available bedspaces	3,428	2,905	2,451	2,107	1,983	1,735	1,611	1,846	1,900	2,106	2,450	2,974
Estimated no. decommissioning workers	327	327	327	327	327	327	327	327	327	327	327	327
Decommissioning workers + occupied bedspaces	3,787	4,310	4,764	5,108	5,232	5,480	5,604	5,369	5,315	5,109	4,765	4,241
Room occupancy incl. decommissioning workers	55%	63%	69%	74%	76%	80%	81%	78%	77%	74%	69%	62%
Actual remaining bedspaces	3,101	2,578	2,124	1,780	1,656	1,408	1,284	1,519	1,573	1,779	2,123	2,647

Table 5.6-10: Assumed Occupancy of Accommodation including decommissioning workers in North Lincolnshire – Effect on Visitors

Total number of bedspaces	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508
Actual number of bedspaces occupied	1,053	1,218	1,638	2,030	2,151	2,320	2,514	2,510	2,207	1,885	1,493	1,183
Total available bedspaces	2,455	2,290	1,870	1,478	1,357	1,188	994	998	1,301	1,623	2,015	2,325
Estimated no. decommissioning workers	327	327	327	327	327	327	327	327	327	327	327	327
Decommissioning workers + occupied bedspaces	1,380	1,545	1,965	2,357	2,478	2,647	2,841	2,837	2,534	2,212	1,820	1,510
Room occupancy incl. decommissioning workers	39%	44%	56%	67%	71%	75%	81%	81%	72%	63%	52%	43%
Actual remaining bedspaces	2,128	1,963	1,543	1,151	1,030	861	667	671	974	1,296	1,688	1,998

Table 5.6-11: Assumed Occupancy of Accommodation including decommissioning workers in East Riding of Yorkshire – Effect on visitors

Total number of bedspaces	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215
Actual number of bedspaces occupied	7,336	8,484	11,161	13,644	14,414	15,514	16,725	16,641	14,781	12,763	10,280	8,251
Total available bedspaces	15,879	14,731	12,054	9,571	8,801	7,701	6,490	6,574	8,434	10,452	12,935	14,964
Estimated no. decommissioning workers	327	327	327	327	327	327	327	327	327	327	327	327
Decommissioning workers + occupied bedspaces	7,663	8,811	11,488	13,971	14,741	15,841	17,052	16,968	15,108	13,090	10,607	8,578
Room occupancy incl. decommissioning workers	33%	38%	49%	60%	63%	68%	73%	73%	65%	56%	46%	37%
Actual remaining bedspaces	15,552	14,404	11,727	9,244	8,474	7,374	6,163	6,247	8,107	10,125	12,608	14,637

Table 5.6-12: Assumed Occupancy of Accommodation including decommissioning workers in three authorities combined – Effect on visitors

Total number of bedspaces	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611
Actual number of bedspaces occupied	11,848	13,685	17,236	20,455	21,470	22,988	24,516	24,193	21,976	19,430	16,211	13,349
Total available bedspaces	21,763	19,926	16,375	13,156	12,141	10,623	9,095	9,418	11,635	14,181	17,400	20,262
Estimated no. decommissioning workers	327	327	327	327	327	327	327	327	327	327	327	327
Decommissioning workers + occupied bedspaces	12,175	14,012	17,563	20,782	21,797	23,315	24,843	24,520	22,303	19,757	16,538	13,676
Room occupancy incl. decommissioning workers	36%	42%	52%	62%	65%	69%	74%	73%	66%	59%	49%	41%
Actual remaining bedspaces	21,436	19,599	16,048	12,829	11,814	10,296	8,768	9,091	11,308	13,854	17,073	19,935

Table 5.6-13: Assumed Occupancy of Accommodation including decommissioning phase workers in Doncaster – Effect on local tourism sector

Total number of bedspaces	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888	6,888
Actual number of bedspaces occupied	3,460	3,983	4,437	4,781	4,905	5,153	5,277	5,042	4,988	4,782	4,438	3,914
Total available bedspaces	3,428	2,905	2,451	2,107	1,983	1,735	1,611	1,846	1,900	2,106	2,450	2,974
Estimated no. decommissioning workers	82	82	82	82	82	82	82	82	82	82	82	82
Decommissioning workers + occupied bedspaces	3,542	4,065	4,519	4,863	4,987	5,235	5,359	5,124	5,070	4,864	4,520	3,996
Room occupancy incl. decommissioning workers	51%	59%	66%	71%	72%	76%	78%	74%	74%	71%	66%	58%
Actual remaining bedspaces	3,346	2,823	2,369	2,025	1,901	1,653	1,529	1,764	1,818	2,024	2,368	2,892

Table 5.6-14: Assumed Occupancy of Accommodation including decommissioning workers in North Lincolnshire – Effect on local tourism sector

Total number of bedspaces	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508	3,508
Actual number of bedspaces occupied	1,053	1,218	1,638	2,030	2,151	2,320	2,514	2,510	2,207	1,885	1,493	1,183
Total available bedspaces	2,455	2,290	1,870	1,478	1,357	1,188	994	998	1,301	1,623	2,015	2,325
Estimated no. decommissioning workers	82	82	82	82	82	82	82	82	82	82	82	82
Decommissioning workers + occupied bedspaces	1,135	1,300	1,720	2,112	2,233	2,402	2,596	2,592	2,289	1,967	1,575	1,265
Room occupancy incl. decommissioning workers	32%	37%	49%	60%	64%	68%	74%	74%	65%	56%	45%	36%
Actual remaining bedspaces	2,373	2,208	1,788	1,396	1,275	1,106	912	916	1,219	1,541	1,933	2,243

Table 5.6–15: Assumed Occupancy of Accommodation including decommissioning workers in East Riding of Yorkshire – Effect on local tourism sector

Total number of bedspaces	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215	23,215
Actual number of bedspaces occupied	7,336	8,484	11,161	13,644	14,414	15,514	16,725	16,641	14,781	12,763	10,280	8,251
Total available bedspaces	15,879	14,731	12,054	9,571	8,801	7,701	6,490	6,574	8,434	10,452	12,935	14,964
Estimated no. decommissioning workers	82	82	82	82	82	82	82	82	82	82	82	82
Decommissioning workers + occupied bedspaces	7,418	8,566	11,243	13,726	14,496	15,596	16,807	16,723	14,863	12,845	10,362	8,333
Room occupancy incl. decommissioning workers	32%	37%	48%	59%	62%	67%	72%	72%	64%	55%	45%	36%
Actual remaining bedspaces	15,797	14,649	11,972	9,489	8,719	7,619	6,408	6,492	8,352	10,370	12,853	14,882

Table 5.6-16: Assumed Occupancy of Accommodation including decommissioning workers in three authorities combined – Effect on local tourism sector

Total number of bedspaces	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611
Actual number of bedspaces occupied	11,848	13,685	17,236	20,455	21,470	22,988	24,516	24,193	21,976	19,430	16,211	13,349
Total available bedspaces	21,763	19,926	16,375	13,156	12,141	10,623	9,095	9,418	11,635	14,181	17,400	20,262
Estimated no. decommissioning workers	82	82	82	82	82	82	82	82	82	82	82	82
Decommissioning workers + occupied bedspaces	11,930	13,767	17,318	20,537	21,552	23,070	24,598	24,275	22,058	19,512	16,293	13,431
Room occupancy incl. decommissioning workers	35%	41%	52%	61%	64%	69%	73%	72%	66%	58%	48%	40%
Actual remaining bedspaces	21,681	19,844	16,293	13,074	12,059	10,541	9,013	9,336	11,553	14,099	17,318	20,180

Cumulative Effects

- 5.6.23. There is no change to the cumulative sites scoped into the assessment of cumulative effects for Sensitivity Test 1.
- 5.6.24. There is no change to the significance of cumulative effects relating to employment and economic contribution during the construction and decommissioning phases, nor is there expected to be any change to the significance of cumulative effects associated with the operational phase. As such, there is no further consideration of these cumulative effects associated with Sensitivity Test 1.
- 5.6.25. Commentary is provided only in relation to potential cumulative effects on accommodation demand during the construction and decommissioning phases.

*Accommodation Demand**Accommodation Demand Effect on Visitors*

- 5.6.26. **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** found that there was a minor to moderate adverse cumulative effect on accommodation demand on visitors, which is not significant. The only difference as a result of Sensitivity Test 1 is a slight increase in workers potentially requiring accommodation, from 1,844 to 2,015. The magnitude of change remains as stated in **ES Chapter 11: Socio Economics [APP-048]** (medium) and therefore the significance of cumulative effect on accommodation demand for visitors remains the same for Sensitivity Test 1. **Table 5.6-17** sets out the detail below.

Accommodation Demand Effect on Local Tourism Sector

- 5.6.27. **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** found that there was a minor to moderate beneficial cumulative effect on accommodation demand on the local tourism sector, which is not significant. The slight increase in workers potentially requiring accommodation, from 1,482 to 1,525 would further benefit the sector, but would not alter the magnitude of change (medium) and therefore the significance of cumulative effect for accommodation demand on the local tourism sector remains the same for Sensitivity Test 1. **Table 5.16-18** sets out the detail below.

Table 5.6–17: Assumed Occupancy of Accommodation including construction workers in three authorities combined for cumulative assessment – Effect on Visitors

Total number of bedspaces	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611
Actual number of bedspaces occupied	11,848	13,685	17,236	20,455	21,470	22,988	24,516	24,193	21,976	19,430	16,211	13,349
Total available bedspaces	21,763	19,926	16,375	13,156	12,141	10,623	9,095	9,418	11,635	14,181	17,400	20,262
Estimated no. construction workers	2,015	2,015	2,015	2,015	2,015	2,015	2,015	2,015	2,015	2,015	2,015	2,015
Construction workers + occupied bedspaces	13,863	15,700	19,251	22,470	23,485	25,003	26,531	26,208	23,991	21,445	18,226	15,364
Room occupancy incl. construction workers	41%	47%	57%	67%	70%	74%	79%	78%	71%	64%	54%	46%
Actual remaining bedspaces	19,748	17,911	14,360	11,141	10,126	8,608	7,080	7,403	9,620	12,166	15,385	18,247

Table 5.6–18: Assumed Occupancy of Accommodation including construction workers in three authorities combined for cumulative assessment – Effect on local tourism sector

Total number of bedspaces	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611	33,611
Actual number of bedspaces occupied	11,848	13,685	17,236	20,455	21,470	22,988	24,516	24,193	21,976	19,430	16,211	13,349
Total available bedspaces	21,763	19,926	16,375	13,156	12,141	10,623	9,095	9,418	11,635	14,181	17,400	20,262
Estimated no. construction workers	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525
Construction workers + occupied bedspaces	13,373	15,210	18,761	21,980	22,995	24,513	26,041	25,718	23,501	20,955	17,736	14,874
Room occupancy incl. construction workers	40%	45%	56%	65%	68%	73%	77%	77%	70%	62%	53%	44%
Actual remaining bedspaces	20,238	18,401	14,850	11,631	10,616	9,098	7,570	7,893	10,110	12,656	15,875	18,737

Conclusion

5.6.28. In respect of socio-economics, the significance of effect of each of the potential effects assessed for each phase remains the same for Sensitivity Test 1 as stated in the ES.

5.7. Transport and Access

Methodology

- 5.7.1. The methodology of Sensitivity Test 1 is set out in Section 4 of this report and is not therefore repeated
- 5.7.2. A robust assessment of the likely significant effects has already been undertaken in **ES Chapter 12: Transport and Access [APP-049]** as it assumes all five Land Parcels are constructed at the same time and therefore all construction vehicle movements are assumed to be on the highway network at the same time. It also provides annual average daily traffic (AADT) flow figures which have been calculated based upon 365 days, and therefore all construction vehicle movements are condensed into one year which will not occur in reality. Therefore, the potential changes in the construction, operation and decommissioning parameters set out in Sensitivity Test 1 are accommodated within the assessment provided in **ES Chapter 12: Transport and Access [APP-049]**.

Construction Phase Assessment

- 5.7.3. A change in the construction period to 36-months and the construction of no more than three land parcels at any one time would not affect the conclusions of **ES Chapter 12: Transport and Access [APP-049]** based on the methodology currently applied, and the assessment remains unchanged and robust.
- 5.7.4. In addition, the potential change in construction period starting between January 2028 to December 2032 with a construction window between January 2028 to December 2035 does not affect the forecast vehicle trips associated with the construction phase. **ES Chapter 12: Transport and Access [APP-049]** assesses the effects of the Scheme against a base year of 2023 and there assumes no growth in background traffic to future years. This is an assessment of the effects of the Scheme as any growth in background traffic would equate to a reduced percentage impact associated with the Scheme.

Operational Phase Assessment

- 5.7.5. Two operational scenarios have been considered under Sensitivity Test 1: Operation Scenario 1 (operation commencing in 2031) and Operation Scenario 2 (operation commencing in 2035). Whilst the connection date differs, this does

not affect the forecast vehicle trips associated with the operational phase and therefore the assessment in **ES Chapter 12: Transport and Access [APP-049]** is unchanged and remains robust for either operational scenario. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES. **ES Chapter 12: Transport and Access [APP-049]** assesses the effects of the Scheme against a base year of 2023 and assumes no growth in background traffic to future years. This is a robust assessment of the effects of the Scheme as any growth in background traffic would equate to a reduced percentage impact.

Decommissioning Phase Assessment

- 5.7.6. The impacts and effects associated with the decommissioning phase under Sensitivity Test 1: Decommissioning Scenario 1 (commencing in 2071) and Decommissioning Scenario 2 (commencing in 2075) are anticipated to be the same as the construction phase. Therefore, the assessment in **ES Chapter 12: Transport and Access [APP-049]** is unchanged and remains robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.7.7. Any impact of cumulative effects has been considered. The potential changes in the construction, operation and decommissioning parameters set out in Sensitivity Test 1 are accommodated within the assessment provided in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** and therefore Sensitivity Test 1 has no impact on Cumulative Effects. This is because the list of cumulative sites is unchanged and the only highway link that would be affected is Link 3 which is shared between the Scheme and Site ID 17. Site ID 17's construction phase is anticipated to be 2026–2036 and the construction period of the Scheme within Sensitivity Test 1 could be 2028–2035 and therefore the potential for overlap between the construction phases still exists and has been assessed within **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

Conclusion

- 5.7.8. It is concluded that **ES Chapter 12: Transport and Access [APP-049]** provides a robust assessment of the Scheme during the construction, operation and decommissioning phases that would not be affected by the changes in Sensitivity Test 1.

5.8. Noise and Vibration

Methodology

- 5.8.1. The methodology of Sensitivity Test 1 is set out in Section 4 of this report and is not therefore repeated.
- 5.8.2. The assessments presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** are not time sensitive in so far as the calculated noise and vibration impacts would not vary with either operational or decommissioning Scenario 1 or Scenario 2 of Sensitivity Test 1. Similarly, the noise impacts during the construction phase are not time sensitive and would not vary under Sensitivity Test 1. The sections below provide further detail on the potential implications of the different phases of the scheme.

Construction Phase Assessment

- 5.8.3. The construction noise calculations presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** are simplified in nature, based on the distance between the identified receptor locations and the closest solar PV module. This is considered a worst-case assessment and, would not vary with the conditions under Sensitivity Test 1: a single connection date between 2031 and 2035. Indeed, the separation distances between the closest panels and receptors are such that, even were multiple panel areas are under construction at one time, the calculated noise levels would conform to the identified limits. Given this, the construction phase calculations in **Table 13-13 of ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** still represent a valid assessment of construction noise activities.
- 5.8.4. Similarly, the noise impacts associated with the use of directional drilling would not vary under Sensitivity Test 1.
- 5.8.5. The vehicle movement information provided in **ES Chapter 12: Transport and Access [APP-049]** is considered a worst-case assessment (for the reasons set out in the preceding section of this report) and would not change in either sensitivity scenario. To that end, the assessments presented in **Table 13-15 of ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** are considered a worst-case assessment and would not change with either sensitivity scenario.

- 5.8.6. Similarly with ground borne vibration, the change in construction dates would not change the relative distances between the receptors and construction activities. As such, the levels of ground borne construction vibration would not vary and would remain below the no significant observed adverse effect level.

Operational Phase Assessment

- 5.8.7. The calculations for the operational phase presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** are based on the whole Scheme operating at any one time. This is considered a worst-case scenario and would still apply whether Operation Scenario 1 (operation commencing in 2031) or Operation Scenario 2 (operation commencing in 2035) are considered. The measured baseline noise levels would likely change between assessment years; however, noise levels would likely increase in line with increases in road traffic flows etc. An increase in background sound level would slightly reduce the overall noise impact, as this is assessed relative to the baseline. However, any reduction due to a change in baseline would be incremental and unlikely to be perceptible in real terms.
- 5.8.8. Given the above, the operational noise impact presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** would not change with either operational scenario 1 or 2. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

- 5.8.9. Noise impacts during the decommissioning phase are expected to be similar to those for the construction phase and would also not vary with either Decommissioning Scenario 1 (commencing in 2071) and Decommissioning Scenario 2 (commencing in 2075). The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.8.10. As summarised in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**, the cumulative impacts arising from the Scheme and the identified cumulative sites would be, at worst, Minor (not significant). The change of dates associated with the scenarios considered under Sensitivity Test 1 would not change the impact significance though would alter the dates in which they may occur.

Conclusion

- 5.8.11. The assessment presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** present the worst-case scenarios for the construction, operation and decommissioning phases and would not change under the proposals for Sensitivity Test 1.

5.9. Air Quality & Greenhouse Gases

Methodology

- 5.9.1. This Sensitivity Test 1 assessment considers the implications of a revised, single connection date (and therefore revised construction, operational and decommissioning programmes) on the findings of **Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**.
- 5.9.2. In accordance with the Scoping Opinion (**ES Appendix 1.1 Planning Inspectorate's EIA Scoping Opinion [APP-057]**) the impacts of the decommissioning phase were scoped out of **Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]** on the basis that road traffic and greenhouse gas emissions at the time of decommissioning are expected to be zero.
- 5.9.3. The methodology of Sensitivity Test 1 is set out in Section 3 of this report and is not therefore repeated.
- 5.9.4. The assessment and conclusions set out below for air quality are judged to apply regardless of the construction period window.

Construction Phase Assessment

- 5.9.5. As described in Section 5.7 there will be no changes to the traffic generated as a result of the construction programme and approach considered under Sensitivity Test 1 when compared to the assumptions in the ES. As such, if the Sensitivity Test 1 scenario were to materialise, it is reasonable to assume that the air quality impacts from construction traffic will be, as a worst-case, equal to, those presented in **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**. In addition, traffic data informs the air quality and greenhouse gases assessment and with no change required to the traffic data through Sensitivity Test 1 this would not cause a change the assessment. Further, improvements in vehicle technology over time will lead to reductions to vehicle emissions, such that delays to the construction programme will likely mean that air quality conditions are better compared to those assumed for 2028.

- 5.9.6. Similarly, to ensure a robust package of mitigation measures is developed, the construction dust risk assessment assumes that the entire area within the Order Limits is worked concurrently; if no more than three parcels are developed concurrently, then the risk of impacts from construction dust are anticipated to be lower than assessed in **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**.
- 5.9.7. In terms of greenhouse gas emissions, the construction phase emissions are predominated by embodied carbon (i.e. the mining and processing of raw materials and manufacturing of construction components such as PV panels). Embodied carbon contributes to over 75% of total lifecycle emissions. These emissions are quantified based on the size of the Scheme and mass and volume of materials and components required to build it. These parameters are the same regardless of whether the build out is over 54-months (as assumed in **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**) or a shorter period.
- 5.9.8. The assessment of embodied carbon uses present day data. This represents a worst-case scenario, because as the global economy decarbonises in the future, the embodied emissions of materials and components are likely to reduce, resulting in lower overall carbon emissions. A later connection date would likely result in lower embodied carbon emissions. Emissions from transport and construction activities would also likely be lower and as such, Sensitivity Test 1 would not materially change the construction phase greenhouse gas assessment set out in **ES Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**.

Operational Phase Assessment

- 5.9.9. **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]** stated that during operation, activities onsite would amount to servicing and maintenance of plant and equipment associated with the Scheme, which will result in approximately one visit to the Scheme per month, equivalent to less than one vehicle movement per day. This trip generation will lead to negligible impacts regardless of future air quality conditions (i.e. the start year of the Scheme).
- 5.9.10. The greenhouse gas assessment calculates the carbon savings (benefits) based on two alternative baseline scenarios as described in paragraph 14.3.22 of **ES**

Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]

- 5.9.11. Sensitivity Test 1 has no material effect on the results or conclusions with respect to Alternative Baseline 2 which compares the Scheme's lifecycle emissions to the lifecycle emissions of a new power generation facility.
- 5.9.12. In terms of Alternative Baseline 1, a later connection date of 2031 (Operational Scenario 1) to 2035 (Operational Scenario 2) will reduce the reported carbon benefits slightly, as Alternative Baseline 1 assumes that CCGT power generation operates unabated until 2035 and is then upgraded with Carbon Capture and Storage (CCS). This means that compared to a phased connection date in 2029, there is a small reduction in carbon savings with a complete connection date in 2031 (Operational Scenario 1) and a larger reduction with a connection date in 2035 (Operational Scenario 2). The changes are summarised as follows:
- 2029 phased connection (as set out in **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**): -2,922,019 TCO₂e
 - 2031 full connection: -2,638,665 TCO₂e
 - 2035 full connection: -949,113 TCO₂e
- 5.9.13. Although the estimated carbon savings will be lower, the conclusions of the assessment will remain a significant beneficial effect and not be materially changed to those set out in **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.9.14. Since there are no changes to traffic volumes generated by the Scheme, such that the air quality effects remain not significant regardless of baseline conditions, and measures to address cumulative construction dust impacts have been set out in **ES Appendix 14.6 Construction Mitigation [Document Reference APP-119]**, it is judged that the cumulative air quality effects

associated with Sensitivity Test 1 will remain as previously assessed in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**. Similarly, as the greenhouse gas assessment is intrinsically cumulative, and the effects of the Scheme in isolation are concluded to not be materially different, it is judged that the cumulative air quality effects associated with Sensitivity Test 1 will remain as previously assessed in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

Conclusion

- 5.9.15. Overall, it is concluded that the scenarios considered in Sensitivity Test 1 will not materially affect the air quality conclusions in **ES Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**. Overall, the air quality effects will be not significant, and the assessment remains robust.

5.10. Agricultural Circumstances

Methodology

- 5.10.1. This section considers the potential effects on agricultural land (especially land quality), soils and farming economics, from the potentially reduced-duration construction phase under Sensitivity Test 1. The methodology of Sensitivity Test 1 is set out in Section 4 of this report and is not therefore repeated. The effects generally remain as described in the ES, with this section focusing only on potential changes to the assessment.
- 5.10.2. This assessment utilises the data and methodology collected for the **Chapter 15: Agricultural Circumstances [APP-052]**.

Construction Phase Assessment

- 5.10.3. The potential impacts and effects of the construction phase are described in the ES, particularly section 15.5. This describes the installation process for the panel areas, tracks, fixed equipment and BESS areas. The soils and agricultural land are generally unaffected. The installation of the PV panel mounting structures is not generally disturbing to soils or land quality, and disturbance is limited mostly to the tracks and fixed infrastructure areas. These areas are generally temporarily affected and can be restored fully to the original Agricultural Land Classification (ALC) grade on decommissioning.
- 5.10.4. **ES Chapter 15: Agricultural Circumstances [APP-052]** assumes that soils and agricultural land will only be moved when it is a suitable condition, and that trafficking (i.e. vehicles movements over soil) will be minimised when soils are not in a suitably dry state. These measures are set out in the **Outline Soil Management Plan (oSMP) [Document Reference 7.8 Revision 3]** which is secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**.
- 5.10.5. As identified in the **ES Chapter 15: Agricultural Circumstances [APP-052]** section 15.4 **[APP-052]**, some of the land within the Order Limits can lie wet in the winter. The **oSMP [Document Reference 7.8 Revision 3]** section 3 describes soil suitability tests that will be needed. As set out in section 3.1.1 of the **oSMP [Document Reference 7.8 Revision 3]**, careful management and minimal soil

movement will need to be engaged especially for work between October and March inclusive.

- 5.10.6. The implications of a reduced-duration construction programme will be reduced flexibility to minimise work when soils are not suitable.
- 5.10.7. It will be necessary to ensure that so far as is possible the construction activities that involve moving soil (e.g. to construct access tracks) and moving multiple vehicle trips over soil (e.g. to install the PV array legs, framework and panels) will not need to take place between October and March. This is set out in the **oSMP [Document Reference 7.8 Revision 3]**.
- 5.10.8. An extra section has been added to the **oSMP [Document Reference 7.8 Revision 3]** to specify the specific practices to be adopted in the event of a reduced construction programme. The **oSMP [Document Reference 7.8 Revision 3]** has been updated at Deadline 2 to reflect the changes.
- 5.10.9. Therefore, the reduced programme will not, subject to good management via the measures in the **oSMP [Document Reference 7.8 Revision 3]** which are secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]** have any additional adverse effects over and above those described in the **ES Chapter 15: Agricultural Circumstances [APP-052]**.

Operational Phase Assessment

- 5.10.10. Two operational scenarios have been considered under Sensitivity Test 1: Operation Scenario 1 (operation commencing in 2031) and Operation Scenario 2 (operation commencing in 2035). There will be no changes to the assessment of effects during the operational phase. This is because the operational use of the land, including the presence of solar infrastructure and continued agricultural use (e.g. grazing), remains unchanged from that assessed in the ES.
- 5.10.11. The effects on agricultural land quality, soils and farm viability are driven by the extent of land take, soil handling during construction, and the long-term management regime secured through the **oSMP [Document Reference 7.8 Revision 3]**. These factors are unaffected by the timing of the operational start date.

5.10.12. No additional land is affected, no further soil disturbance is introduced, and no changes occur to the management or restoration strategy. As such, there are no new or altered impact pathways. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

5.10.13. There will be no changes to the assessment of effects during the decommissioning phase when considering Decommissioning Scenario 1 (commencing in 2071) and Decommissioning Scenario 2 (commencing in 2075). This is because the nature, extent and methodology of decommissioning activities remain unchanged from those assessed in the ES.

5.10.14. Potential effects on soils and agricultural land during decommissioning are associated with the removal of infrastructure and reinstatement of soils, which are controlled through the **oDEMP [Document Reference 7.3 Revision 3]** and the **oSMP [Document Reference 7.8 Revision 3]**. These activities, and the associated mitigation measures, are consistent regardless of when decommissioning occurs.

5.10.15. A change in the timing of decommissioning does not alter soil conditions, land capability, or the effectiveness of mitigation measures, and does not introduce any new or different effects. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

5.10.16. There are no changes to the cumulative effects assessment for agricultural circumstances. The cumulative assessment presented in the ES considered the interaction between the Scheme and other developments in terms of land take, soil disturbance and agricultural land management.

5.10.17. Sensitivity Test 1 does not introduce any changes to the footprint, extent, or nature of agricultural land affected by the Scheme, nor does it alter the type or

scale of soil handling or land management practices. As such, the contribution of the Scheme to any cumulative effects remains the same.

- 5.10.18. Changes to the programme relate solely to the timing of construction, operation and decommissioning, and do not introduce new scenarios that would materially alter the cumulative interaction with other developments. Where temporal overlap may occur, the nature and magnitude of effects remain consistent with those already assessed as part of the ES worst-case scenario. Accordingly, no new or materially different cumulative effects are identified, and the conclusions of the ES remain unchanged.

Conclusion

- 5.10.19. The reduced duration of the construction phase (Sensitivity Test 1) will require careful planning and land management, to minimise the need to work soils and land when conditions are not suitable. However, subject to good management as detailed within the **oSMP [Document Reference 7.8 Revision 3]** and secured by DCO requirement, there would be no significant adverse effects.
- 5.10.20. Overall, it is concluded that the scenarios considered in Sensitivity Test 1 will not materially affect the agricultural circumstances conclusions in **ES Chapter 15: Agricultural Circumstances [APP-052]** and the assessment remains robust

5.11. Other Environmental Topics

- 5.11.1. The environmental topics listed below did not warrant individual chapters due to the limited impacts associated with the Scheme. Therefore, the assessment of the phasing scenario of a single connection date within the 2031–2035 window (Sensitivity Test 1) is considered with a proportionate assessment provided given these topics were not required to be assessed as a standalone ES topic.

Major Accidents and Disasters

Methodology

- 5.11.2. The methodology of Sensitivity Test 1 is set out in ‘Section 4 – Methodology’ of this Report and is not therefore repeated. However, it is confirmed that the change in the construction period starting between January 2028 – December 2032 does not impact the construction phase assessment for Major Accidents and Disasters, and a worst-case scenario assessment parameter of a selected start year between January 2028–December 2032 for the assessment is not required. Any effects identified within the construction period of 2028–2035 are not impacted or influenced by a specific construction year date. This is the same for the operational and decommissioning phases, that a change in the operation or decommissioning start date does not specifically impact or influence effects.

Construction Phase Assessment

- 5.11.3. Construction effects in the ES were subcategorised into effects on Health and Safety at Work, Trenchless Works and Existing Infrastructure, Fire, Utilities Failure and Criminal Damage. All of the Major Accident and Disaster risks assessed during construction are identified as not significant. The methodology for determining significance of effect relies on geographic extent, duration, severity, degree of harm and sensitivity of receptors. The change in the construction period parameters for Sensitivity Test 1 have no major bearing on the conclusions of the ES, however, for completeness relevant changes are discussed below.
- 5.11.4. Increasing the number of parcels by an additional parcel that could be built out at any one time increases the geographic extent and in turn increases the

number of construction workers that may be on-site at any one time. However, the nature and intensity of the construction works is not changing, and therefore the significance of effect does not alter.

- 5.11.5. Reducing the duration of the construction period to 36 months from the 54-month construction period will reduce effects, such as duration construction workers are exposed to construction hazards, and therefore a betterment in effects is anticipated.
- 5.11.6. Risks of Major Accidents and Disasters are mitigated through adhering to appropriate risk assessments within the **oCEMP [Document Reference 7.1 Revision 3]** and **Outline Battery Safety Management Plan (oBSMP) [APP 179]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, and embedded design features within the Scheme. Therefore, with mitigation in place the risk of accidents and disaster events in respect of the Scheme is considered and remains low and not significant when applying Sensitivity Test 1 construction parameters.
- 5.11.7. The conclusions set out for the construction phase for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Operational Phase Assessment

- 5.11.8. Operational effects in the ES were subcategorised into effects on Health and Safety at Work, Trenchless Works and Existing Infrastructure, Fire, Utilities Failure and Criminal Damage. All of the Major Accident and Disaster risks assessed during operation are identified as not significant. The methodology for determining significance of effect relies on geographic extent, duration, severity, degree of harm and sensitivity of receptors. The change in the operational period parameters for 'Operational Scenario 1' or 'Operational Scenario 2' for Sensitivity Test 1 have no influence on the conclusions set out for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 5.11.9. Risks of Major Accidents and Disasters are mitigated through adhering to appropriate risk assessments within the **Outline Operational and Environmental Management Plan (oOEMP) [Document Reference 7.2 Revision 2]** and **(oBSMP) [APP 179]**, and embedded design features within the Scheme.

Therefore, with mitigation in place the risk of accidents and disaster events at the Scheme is considered and remains low and not significant when applying Sensitivity Test 1 operational parameters.

- 5.11.10. The conclusions set out for the operational phase for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

- 5.11.11. Decommissioning effects in the ES were subcategorised into effects on Health and Safety at Work, Trenchless Works and Existing Infrastructure, Fire, Utilities Failure and Criminal Damage. All of the Major Accident and Disaster risks assessed during decommissioning are identified as not significant. The methodology for determining significance of effect relies on geographic extent, duration, severity, degree of harm and sensitivity of receptors. The change in the decommissioning period parameters for 'Decommissioning Scenario 1' or 'Decommissioning Scenario 2' for Sensitivity Test 1 have no influence on the conclusions set out for Major Accidents and Disasters in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 5.11.12. Risks of Major Accidents and Disasters are mitigated through adhering to appropriate risk assessments within the **oDEMP [Document Reference 7.3 Revision 3]** and **(oBSMP) [APP 179]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, and embedded design features within the Scheme. Therefore, with mitigation in place the risk of accidents and disaster events at the Scheme is considered and remains low and not significant when applying Sensitivity Test 1 decommissioning parameters.
- 5.11.13. The conclusions set out for the decommissioning phase for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.11.14. The shortlisted other cumulative schemes are not located in the immediate proximity of the Order Limits to have any notable cumulative effects in regard to risks of Major Accidents and Disasters. The Sensitivity Test 1 parameter changes for the construction, operation and decommissioning phases do not influence the conclusions set out for Cumulative Effects for Major Accidents and Disasters in **ES Chapter 17 Cumulative Impacts [Document Reference 6.2.17 Revision 2]**, with no significant cumulative effects anticipated to arise.
- 5.11.15. Therefore, the Cumulative Effects for Major Accidents and Disasters in **ES Chapter 17 Cumulative Impacts [Document Reference 6.2.17 Revision 2]** remain robust.

Conclusion

- 5.11.16. In conclusion, the assessment undertaken for Sensitivity Test 1 identifies there are no material changes to the assessment and conclusions identified in the ES for Major Accidents and Disasters.

Waste

Methodology

- 5.11.17. The methodology of Sensitivity Test 1 is set out in 'Section 3 – Methodology' of this Report and is not therefore repeated. However, it is confirmed that the change in the construction period starting between January 2028 – December 2032 does not impact the construction phase assessment for Waste, and a worst-case scenario assessment parameter of a selected construction start year between January 2028–December 2032 for the assessment is not required. Any effects identified within the construction period of 2028–2035 are not impacted or influenced by a specific construction year date. This is the same for the operational and decommissioning phases, that a delayed change in the operation or decommissioning start date does not specifically impact or influence effects.

Construction Phase Assessment

- 5.11.18. The change in the construction period parameters for Sensitivity Test 1 has significant impact on the conclusions of the ES following the methodology

approach of assessing waste via landfill diversion as set out in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**. The total materials used, total waste generated, destinations of waste streams and quantity of material capable of being recycled does not differ with the change in parameters.

- 5.11.19. Reducing the duration of the construction period to 36 months would condense the generation of waste to a shorter period, however, the total volume of waste created overall for the Scheme would not differ and is still capable of largely being diverted from landfill and recycled.
- 5.11.20. Increasing the number of parcels by an additional parcel that could be built out at any one time would increase the amount of waste generated at any one time, however, the total volume of waste created overall for the Scheme would not differ and is still capable of largely being diverted from landfill and recycled.
- 5.11.21. Waste is mitigated through adhering to the waste hierarchy and measures set out within the **oCEMP [Document Reference 7.1 Revision 3]** and Site Waste Management Plan (secured within the Construction Environmental Management Plan), and **oSMP [APP- 183]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place waste for the Scheme is considered and remains not significant when applying Sensitivity Test 1 construction parameters.
- 5.11.22. The conclusions set out for the construction phase for Waste in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Operational Phase Assessment

- 5.11.23. The change in the operational period parameters for 'Operational Scenario 1' or 'Operational Scenario 2' for Sensitivity Test 1 has no influence on the conclusions set out for Waste in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 5.11.24. Waste is mitigated through adhering to the waste hierarchy and measures set out within the **oOEMP [Document Reference 7.2 Revision 2]** and **oSMP [APP- 183]** and secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place waste

for the Scheme is considered and remains not significant when applying Sensitivity Test 1 operational parameters.

- 5.11.25. The conclusions set out for the operational phase for Waste in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

- 5.11.26. The change in the decommissioning period parameters for 'Decommissioning Scenario 1' or 'Decommissioning Scenario 2' for Sensitivity Test 1 have no influence on the conclusions set out for Waste in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 5.11.27. Waste is mitigated through adhering to the waste hierarchy and measures set out within the **oDEMP [Document Reference 7.3 Revision 3]** and **oSMP [APP-183]** and secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place waste for the Scheme is considered and remains not significant when applying Sensitivity Test 1 decommissioning parameters.
- 5.11.28. The conclusions set out for the decommissioning phase for Waste in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.11.29. The shortlisted other cumulative schemes could have cumulative effects for the construction or decommissioning phases if the Scheme coincides with the equivalent phases on other cumulative schemes. However, it is considered unlikely for a complete overlap in timing of phases with the Scheme and other cumulative schemes and associated maximum quantities of waste. The Sensitivity Test 1 parameter changes for the construction, operation and

decommissioning phases do not alter the conclusions set out for Cumulative Effects for Waste in **ES Chapter 17 Cumulative Impacts [Document Reference 6.2.17 Revision 2]**, with no significant cumulative effects anticipated to arise.

- 5.11.30. Therefore, the Cumulative Effects for Waste in **ES Chapter 17 Cumulative Impacts [Document Reference 6.2.17 Revision 2]** remain robust.

Conclusion

- 5.11.31. In conclusion, the assessment undertaken for Sensitivity Test 1 identifies there are no material changes to the assessment and conclusions identified in the ES for Waste.

Electric and Electromagnetic Fields

Methodology

- 5.11.32. The methodology of Sensitivity Test 1 is set out in 'Section 4 – Methodology' of this Report and is not therefore repeated. However, it is confirmed that the change in the construction period starting between January 2028 – December 2032 does not impact the construction phase assessment for Electric and Electromagnetic Fields, and a worst-case scenario assessment parameter of a selected year between January 2028–December 2032 for the assessment is not required. Any effects identified within the construction period of 2028–2035 are not impacted or influenced by a specific construction year date. This is the same for the operational and decommissioning phases, that a delayed change in the operation or decommissioning start date does not specifically impact or influence effects.

Construction & Decommissioning Phase Assessments

- 5.11.33. Effects during the construction and decommissioning phases of the Scheme are scoped out of the assessment as the cables will not produce any significant EMFs until the Scheme is generating electricity when it is operational.

Operational Phase Assessment

- 5.11.34. The change in the operational period parameters for 'Operational Scenario 1' or 'Operational Scenario 2' for Sensitivity Test 1 have no influence on the conclusions set out for Electric and Electromagnetic Fields in **ES Chapter 16**

Other Environmental Topics [Document Reference 6.2.16 Revision 2]. The methodology to assess effects of Electric and Electromagnetic Fields in the ES identifies if proposed infrastructure of the Scheme exceeds exposure limits. A delay in an operational start date has no bearing on the assessment methodology.

- 5.11.35. Therefore, effects of Electric and Electromagnetic Fields for the Scheme are considered and remain not significant when applying Sensitivity Test 1 operational parameters.
- 5.11.36. The conclusions set out for the operational phase for Electric and Electromagnetic Fields in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.11.37. The Sensitivity Test 1 parameters have no influence on Electric and Electromagnetic Fields cumulative effects with the Scheme in combination with other identified cumulative schemes. Therefore, the Sensitivity Test 1 parameter changes for the construction, operation and decommissioning phases do not alter the conclusions set out for Cumulative Effects for Electric and Electromagnetic Fields in **ES Chapter 17 Cumulative Impacts [Document Reference 6.2.17 Revision 2]**, with no significant cumulative effects anticipated to arise.
- 5.11.38. Therefore, the Cumulative Effects for Electric and Electromagnetic Fields in **ES Chapter 17 Cumulative Impacts [Document Reference 6.2.17 Revision 2]** remain robust.

Conclusion

- 5.11.39. In conclusion, the assessment undertaken for Sensitivity Test 1 identifies there are no material changes to the assessment and conclusions identified in the ES for Electric and Electromagnetic Fields.

Climate Change Resilience and Adaptation

Methodology

- 5.11.40. The methodology of Sensitivity Test 1 is set out in 'Section 3 – Methodology' of this Report and is not therefore repeated. However, it is confirmed that the change in the construction period starting between January 2028 – December 2032 does not impact the construction phase assessment for Climate Change Resilience and Adaptation, and a worst-case scenario assessment parameter of a selected year between January 2028–December 2032 for the assessment is not required. Any effects identified within the construction period of 2028–2035 are not impacted or influenced by a specific construction year date. This is the same for the operational and decommissioning phases, that a delayed change in the operation or decommissioning start date does not specifically impact or influence effects.

Construction Phase Assessment

- 5.11.41. The change in the construction period parameters for Sensitivity Test 1 has no major bearing on the conclusions of the ES as set out in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 5.11.42. Reducing the duration of the construction period to 36 months would reduce exposure to the seasonal climatic hazards identified and therefore a betterment in effects is anticipated, although not sufficient to change the conclusions set out in the ES.
- 5.11.43. Resilience and adaptation to climate change is mitigated through adhering to measures set out within relevant management plans, including the **oCEMP [APP-176]**, which is secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place resilience and adaptation to climate change for the Scheme is considered and remains not significant when applying Sensitivity Test 1 construction parameters.
- 5.11.44. The conclusions set out for the construction phase for Climate Change Resilience and Adaptation in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Operational Phase Assessment

- 5.11.45. The change in the operational period parameters for 'Operational Scenario 1' or 'Operational Scenario 2' for Sensitivity Test 1 have no influence on the conclusions set out for Climate Change Resilience and Adaptation in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 5.11.46. Resilience and adaptation to climate change is mitigated through adhering to measures set out within relevant management plans, including the **oOEMP [APP-177]** which is secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place resilience and adaptation to climate change for the Scheme is considered and remains not significant when applying Sensitivity Test 1 operational parameters.
- 5.11.47. The conclusions set out for the operational phase for Climate Change Resilience and Adaptation in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

- 5.11.48. The change in the decommissioning period parameters for 'Decommissioning Scenario 1' or 'Decommissioning Scenario 2' for Sensitivity Test 1 has no influence on the conclusions set out for Climate Change Resilience and Adaptation in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 5.11.49. Resilience and adaptation to climate change is mitigated through adhering to measures set out within relevant management plans, including the **oDEMP [APP-178]** which is secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place resilience and adaptation to climate change for the Scheme is considered and remains not significant when applying Sensitivity Test 1 decommissioning parameters.
- 5.11.50. The conclusions set out for the decommissioning phase for Climate Change Resilience and Adaptation in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust. The only difference is that any effects taking place could be shifted temporally. This does

not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.11.51. Cumulative effects have been scoped out of the ES in line with the agreed brevity of the Climate Change Resilience and Adaptation assessment scope required in the EIA.

Conclusion

- 5.11.52. In conclusion, the assessment undertaken for Sensitivity Test 1 identifies there are no material changes to the assessment and conclusions identified in the ES for Climate Change Resilience and Adaptation.

Glint and Glare

Methodology

- 5.11.53. The methodology of Sensitivity Test 1 is set out in 'Section 4 – Methodology' of this Report and is not therefore repeated. However, it is confirmed that the change in the construction period starting between January 2028 – December 2032 does not impact the construction phase assessment for Glint & Glare, and a worst-case scenario assessment parameter of a selected year between January 2028–December 2032 for the assessment is not required. Any effects identified within the construction period of 2028–2035 are not impacted or influenced by a specific construction year date. This is the same for the operational and decommissioning phases, that a delayed change in the operation or decommissioning start date does not specifically impact or influence effects.

Construction & Decommissioning Phase Assessment

- 5.11.54. Effects during the construction and decommissioning phases of the Scheme are scoped out of the assessment as the operational effects identify the worst-case scenario of all infrastructure, including the solar panels predominantly creating glint and glare effects. Therefore, any effects in the construction or decommissioning phase will be negligible and to a lesser degree than the effects identified for the operational phase.

Operational Phase Assessment

- 5.11.55. The change in the operational period parameters for 'Operational Scenario 1' or 'Operational Scenario 2' for Sensitivity Test 1 has no influence on the conclusions set out for Glint and Glare in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**. The methodology to assess effects of Glint and Glare is through modelling the two layout options in the ES to identify the degree of glint and glare on identified receptors. A delay in an operational start date has no bearing on the assessment methodology.
- 5.11.56. Therefore, effects of Glint and Glare for the Scheme are considered and remain not significant when applying Sensitivity Test 1 operational parameters.
- 5.11.57. The conclusions set out for the operational phase for Glint and Glare in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 5.11.58. Cumulative effects have been scoped out of the ES in line with the agreed brevity of the Glint and Glare assessment scope required in the EIA.

Conclusion

- 5.11.59. In conclusion, the assessment undertaken for Sensitivity Test 1 identifies there are no material changes to the assessment and conclusions identified in the ES for Glint and Glare.

6 Sensitivity Test 2 Assessment

6.1. Landscape and Visual

Methodology

- 6.1.1. The methodology used for the landscape and visual sensitivity test assessment replicates that used for the ES for the Scheme, namely **Appendix 6.1: Landscape and Visual Impact Assessment Criteria [APP-O61]**. The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated.

Construction Phase Assessment

- 6.1.2. Despite the delayed construction period proposed in Section 3 above, it is considered that the assessment as set out in **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]** would not materially change. The ES assessment considers that *'the multiple phase construction option represents a worst case scenario from a landscape and visual perspective'* as stated in paragraph 6.3.42 of **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]** When and where construction activity takes place within the Order Limits has little overall bearing upon the construction effects upon landscape character, landscape features or visual amenity. Therefore, it is predicted that there would be no change to the landscape or visual effects as set out in the ES assessment, as a result of the delayed construction period as set out for the Sensitivity Test 2.

Operational Phase Assessment

- 6.1.3. The assessment effects during the operational phase for will be the same as those set out in **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

- 6.1.4. The assessment effects during the decommissioning phase will be the same as those set out in **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 6.1.5. Cumulative effects are primarily influenced by the scale and nature of development rather than precise timing of overlap; these parameters remain unchanged. Any potential revised temporal overlap would not exceed the conditions already assessed. The assessment of cumulative effects for Sensitivity Test 2 will be the same as those set out in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

Conclusion

- 6.1.6. The assessment effects for Sensitivity Test 2 during the construction, operation and decommissioning phases will be the same as those set out in **ES Chapter 6: Landscape and Visual [Document Reference 6.2.6 Revision 3]**, and **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

6.2. Ecology and Nature Conservation

Methodology

- 6.2.1. **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** was supported by a full range of specialised ecology surveys that followed standard guidance and were completed within appropriate survey periods. The scope of surveys and the overall assessment approach were informed through consultation with Natural England and the relevant local planning authorities, including the City of Doncaster Council and North Lincolnshire Council. This ensured that an accurate ecological baseline for the Order Limits was established. This baseline was used to assess potential impacts arising from the Scheme and to inform the design of appropriate mitigation and enhancement measures to ensure that no significant adverse ecological or residual effects would occur.
- 6.2.2. The ecological assessment presented within **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and the findings of the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]** has been used to assess the potential impacts associated with Sensitivity Test 2. The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated.

Construction Phase Assessment

- 6.2.3. The construction phase for Sensitivity Test 2 considers a 54-month construction period, with no more than two land parcels constructed concurrently.
- 6.2.4. The assessment presented within **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** considered a worst-case construction scenario in terms of duration, phasing and extent of disturbance. The potential ecological effects arising from construction are primarily driven by the nature and extent of construction activities (e.g. vegetation clearance, disturbance, and temporary habitat loss), rather than the specific year within the construction window in which they occur.
- 6.2.5. Embedded mitigation and good practice measures, as secured through the **oECMP [Document Reference 7.5 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**,

would be implemented throughout the construction phase. These include measures such as timing of works to avoid sensitive periods for affected species, protection of retained habitats, implementation of buffers to key features, and supervision by an ECoW, where required.

- 6.2.6. In addition, the **oECMP [Document Reference 7.5 Revision 3]**, details measures including Species Protection Plans, Reasonable Avoidance Measures (RAMs), pre-construction surveys, protected species licensing (where required), and controls relating to pollution, lighting, noise and construction activities.
- 6.2.7. As detailed within the **oECMP [Document Reference 7.5 Revision 3]**, further ecological surveys will be undertaken prior to construction commencing. This ensures that mitigation measures are informed by the most up to date ecological baseline conditions and will support any necessary protected species licences.
- 6.2.8. As set out in **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]**, mitigation for the loss and disturbance of habitat identified as functionally linked land (FLL) for SPA qualifying bird species includes the provision of dedicated mitigation areas, which are created prior to the onset of each relevant construction phase. This ensures that suitable habitat is available prior to any loss or disturbance occurring within the Order Limits.
- 6.2.9. On this basis, the construction programme does not result in a material change to the nature or magnitude of ecological effects. The conclusions of **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]** remain valid, and no new or different likely significant effects are identified.

Operational Phase Assessment

- 6.2.10. The Scheme is assumed to be fully operational by 2035 under Sensitivity Test 2, with a 40-year operational period thereafter.
- 6.2.11. All embedded mitigation and enhancement measures, as secured through the **oLEMP [APP-181]** and **oECMP [Document Reference 7.5 Revision 3]**, as secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, would be functioning prior to the commencement of operation.

- 6.2.12. As such, the ecological baseline, habitat condition and management regime are not influenced by the operational start date. The timing of the operational phase does not influence the nature or magnitude of ecological effects, as habitats are created prior to the onset of each relevant construction phase and early operational phases and are thereafter maintained throughout the lifetime of the Scheme.
- 6.2.13. The habitat creation and enhancement measures will ensure that a minimum 10% Biodiversity Net Gain (BNG) for the Scheme is achieved.
- 6.2.14. A programme of ecological monitoring is secured through the **oLEMP [Document Reference 7.6 Revision 3]**, via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, to ensure that all mitigation and enhancement measures would continue to function as intended. Monitoring would be undertaken throughout the operational phase and will include the condition of created and retained habitats, the effectiveness of mitigation areas, and the success of habitat management prescriptions.
- 6.2.15. On this basis, there are no materially or materially different likely significant effects between the operational scenarios. The assessment of effects for the operational phase for Sensitivity Test 2 is the same as the assessment of effects reported in **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES or the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**.

Decommissioning Phase Assessment

- 6.2.16. The Scheme is assumed to be decommissioned following 40 years of operation, commencing in 2075 under Sensitivity Test 2.
- 6.2.17. Decommissioning activities will be undertaken in accordance with the **oDEMP [Document Reference 7.3 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, which

would be informed by updated ecological surveys and the most up to date baseline conditions.

- 6.2.18. The timing of decommissioning does not influence the nature or magnitude of ecological effects, as potential impacts are driven by the nature and extent of decommissioning activities rather than the specific year in which they occur.
- 6.2.19. Measures to avoid and minimise ecological effects during decommissioning, including appropriate timing of works, protection of retained habitats, and implementation of best practice measures, are secured through the **oDEMP [Document Reference 7.3 Revision 3]**.
- 6.2.20. On this basis, there are no materially new or materially different likely significant effects between the decommissioning scenarios. The assessment of effects for the decommissioning phase for Sensitivity Test 2 is the same as the assessment of effects reported in **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]**. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 6.2.21. The ES included an assessment of cumulative effects within a standalone chapter, considering the Scheme in combination with other relevant plans and projects. The conclusions of that assessment were based on the worst-case construction, operational and decommissioning scenarios for the Scheme. Cumulative effects were also considered within the **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]**.
- 6.2.22. Sensitivity Test 2 does not introduce any new types of impact, receptors or pathways for cumulative effects. The changes considered relate solely to the timing and phasing of the Scheme, rather than changes to the nature or extent of the Scheme itself.
- 6.2.23. As such, the potential for cumulative effects is not materially influenced by the construction programme or the operational and decommissioning timing. Any potential revised temporal overlap would not exceed the conditions already assessed. The duration, scale and nature of effects remain consistent with those

assessed in **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]**, and embedded mitigation and other measures secured through the **oECMP [Document Reference 7.5 Revision 3]**, **oLEMP [Document Reference 7.6 Revision 3]** and **oDEMP [Document Reference 7.3 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, would apply.

- 6.2.24. On this basis, there is no material change to the cumulative effects assessment presented in **ES Chapter 7: Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]**, and the conclusions remain valid. No new or different likely significant cumulative effects are identified.

Conclusion

- 6.2.25. Sensitivity Test 2 does not result in any material change to the ecological assessment presented within the ES.
- 6.2.26. The construction programme, including a 54-month construction period and a maximum of two land parcels constructed concurrently, remains within the parameters of the previously assessed worst-case scenario. Embedded mitigation and good practice measures secured through the **oECMP [Document Reference 7.5 Revision 3]**, , secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, would continue to ensure that ecological effects during construction are effectively managed.
- 6.2.27. Furthermore, in line with the **oECMP [Document Reference 7.5 Revision 3]**, further ecological surveys will be undertaken prior to construction to ensure that species protection measures remain appropriate and based on up to date baseline data.
- 6.2.28. Across the operational and decommissioning phases, the timing of Sensitivity Test 2 does not alter the nature, magnitude or significance of ecological effects. Mitigation, enhancement and monitoring measures secured through the **oECMP [Document Reference 7.5 Revision 3]**, **oLEMP [Document Reference 7.6 Revision 3]** and **oDEMP [Document Reference 7.3 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, ensure that ecological receptors are protected and that habitat creation and management remain effective throughout the lifecycle of the Scheme.

- 6.2.29. No new pathways for cumulative effects are introduced, and the conclusions of the cumulative assessment within the ES remain valid.
- 6.2.30. Overall, Sensitivity Test 2 does not give rise to any materially new or materially different likely significant ecological effects. The findings and conclusions of **ES: Chapter 7 Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]** and **Report to Inform Habitat Regulations Assessment [Document Reference 5.3 Revision 4]** therefore remain robust and applicable, and no changes to the proposed mitigation and enhancement measures are necessary.

6.3. Cultural Heritage and Archaeology

Methodology

- 6.3.1. This section of Sensitivity Assessment 2 has considered direct and indirect effects to cultural heritage and archaeology arising from a 54-month construction phase as considered in **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]**. The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated.
- 6.3.2. Direct effects have been scoped out of both the Operational Phase and Decommissioning Phase assessments as no impacts to the archaeological resource within the Order Limits are expected following the conclusion of the Construction Phase.
- 6.3.3. Indirect effects arising from the Operational Phase and Decommissioning Phase have been assessed.

Construction Phase Assessment

Direct Effects

- 6.3.4. There would be no changes to the level of effect upon archaeological assets within the Order Limits detailed in **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** arising as a result of the construction phase under Sensitivity Test 2.
- 6.3.5. This is because direct effects are determined by the extent and location of ground disturbance, which are unchanged under Sensitivity Test 2. The construction methodology, design parameters and maximum footprint remain identical to those assessed in the ES, and therefore the magnitude of direct effect on archaeological assets remains the same.

Indirect Effects

- 6.3.6. Indirect effects upon built heritage assets and historic landscapes arising from the potential development of no more than two parcels concomitantly and a 54-month construction phase have been considered. Details of the construction phase scenario are provided at paragraphs 4.1.20–4.1.21, above.

- 6.3.7. There are no changes to the indirect effects that have been identified within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** in relation to four designated built heritage assets (Dirtness Cottage; Dirtness Pumping Station; Grove House Farmhouse, and Sandhill Farmhouse), three non-designated built heritage assets (Belton Grange; Dale Mount Farm, and Drain House Farm) and an area of Special Historic Landscape Interest (the Isle of Axholme) in relation to the Construction Phase. The only change introduced by Sensitivity Test 2 is a changed construction period (2031–2035). This does not alter the nature, scale or spatial distribution of construction activities, nor the mechanisms by which indirect effects arise (e.g. visual intrusion, noise or activity).
- 6.3.8. As a result, the magnitude of harm and the significance of effects remain as assessed in the ES. No materially new or materially different effects are identified.

Operational Phase Assessment

- 6.3.9. No direct impacts upon the buried archaeological resource within the Order Limits are anticipated following the completion of the Scheme construction. As such, these receptors are scoped out of discussion as part of the Operational Phase assessment. Details of the operational phase scenario are provided at paragraphs 4.1.22–4.1.25, above.

Operational Phase

- 6.3.10. There are no changes to the indirect effects that have been identified within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** in relation to four designated built heritage assets, three non-designated built heritage assets and an area of Special Historic Landscape Interest in relation to the Operational Phase. This is because the operational characteristics of the Scheme (including layout, infrastructure, and visibility) remain unchanged, and therefore the key determinants of indirect effects – namely the presence, scale and appearance of the Scheme within the setting of heritage assets – are unaffected by the revised programme.
- 6.3.11. The revised operational start date (full operation by 2035) results only in a temporal shift in when effects are experienced, rather than any change to their duration, magnitude or significance.

- 6.3.12. Accordingly, there are no materially new or materially different effects relative to the ES.

Decommissioning Phase Assessment

- 6.3.13. No direct impacts upon the buried archaeological resource within the Order Limits are anticipated following the completion of the Scheme construction. As such, these receptors are scoped out of discussion as part of the Decommissioning Phase.
- 6.3.14. Details of the decommissioning phase scenario are provided at paragraphs 4.1.26–4.1.28. above. There are no changes to the indirect effects that have been identified within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** in relation to four designated built heritage assets, three non-designated built heritage assets and an area of Special Historic Landscape Interest in relation to the Decommissioning Phase. Indirect effects on built heritage assets and historic landscapes during decommissioning would be similar in nature to those identified for the construction phase, arising from temporary activity, movement and disturbance.
- 6.3.15. The delay to the decommissioning phase (commencing in 2075) does not alter the type, scale or duration of these activities, nor the mechanisms by which effects arise. The level of effect therefore remains consistent with the ES assessment.
- 6.3.16. As such, the revised timing represents only a temporal shift in when effects occur and does not result in any materially new or materially different effects or any change to the significance of effect.

Cumulative Effects

- 6.3.17. The submitted assessment of cumulative and in-combination effects in relation to cultural heritage and archaeology identified no significant effects would arise. This assessment can be found within **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.
- 6.3.18. This Sensitivity Test 2 Assessment has considered the construction phasing and both the operational and decommissioning scenarios and not identified any changes that would lead to additional cumulative or in-combination effects or

increase the identified less than substantial harm to such a degree as to result in a significant effect.

- 6.3.19. The delayed construction period (2031–2035) may alter the extent to which construction overlaps with other schemes, however, this represents only a shift in the timing of potential interactions, rather than an increase in the magnitude or nature of effects; Cumulative effects are primarily influenced by the scale and nature of development rather than precise timing of overlap; these parameters remain unchanged. Any potential revised temporal overlap would not exceed the conditions already assessed.
- 6.3.20. The identified cumulative developments are already subject to their own mitigation and environmental controls, and no new or more adverse interaction pathways are introduced by the revised programme.

Conclusion

- 6.3.21. This Sensitivity Test 2 Assessment has identified that the methodology to be followed during the construction phase will not result in changes to the level of effect identified within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]**.
- 6.3.22. Direct effects were scoped out of both the Operational Phase and Decommissioning Phase assessments.
- 6.3.23. Consideration of the operational phase parameter change identified no changes to the indirect effects presented within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** in relation to four designated built heritage assets, three non-designated built heritage assets and an area of Special Historic Landscape Interest. There are no significant effects identified.
- 6.3.24. Consideration of the decommissioning phase parameter change identified no changes to the indirect effects presented within **ES Chapter 8: Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]** in relation to four designated built heritage assets, three non-designated built heritage assets and an area of Special Historic Landscape Interest. There are no significant effects identified.

6.4. Ground Conditions

Methodology

- 6.4.1. The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated.
- 6.4.2. The ground conditions are not sensitive to the specific construction year within the Sensitivity Test 2 window, as underlying geological, geotechnical, geohydrological and contamination conditions remain unchanged between 2031 and 2035. The assessment therefore focuses on whether the later programme, retaining a 54-month construction period and a maximum of two concurrent land parcels, alters the likely significant effects identified in the ES assessment.
- 6.4.3. The same qualitative methodology used in the ES assessment has been applied, reflecting that no new ground investigations, intrusive works or design changes are introduced under this scenario.

Construction Phase Assessment

- 6.4.4. Under Sensitivity Test 2, construction may commence between 2031 and 2035 and extend over a 54-month period, following the same construction methodology assessed within the ES assessment. Only the timing shifts; the nature, scale and intensity of earthworks and ground disturbance remain unchanged.
- 6.4.5. Construction related effects continue to relate to disturbance and/ or loss of topsoil and subsoil, inaccessibility of mineral resources, stability considerations associated with peat, potential encounter and/or migration of localised contamination, ground gas generation, alteration of shallow groundwater conditions, unexploded ordnance and disturbance of contamination and polluting materials and run-off to water courses.
- 6.4.6. As construction methods and embedded mitigation, measures within the **oCEMP [Document Reference 7.1 Revision 3]**, The Construction (Design and Management) Regulations 2015, risk assessments and UXO assessment, remain identical, the later start date does not alter the magnitude or significance of effects.

- 6.4.7. Residual construction effects therefore remain negligible, consistent with the ES assessment.

Operational Phase Assessment

- 6.4.8. Under Sensitivity Test 2, the Scheme is fully operational between 2035 and 2075. As with the ES assessment, the operational phase does not involve intrusive ground activities and therefore results in minimal interaction with soils or groundwater.
- 6.4.9. All ground stability risks are addressed and engineered out during construction. No ongoing soil disturbance is envisaged during operation, and sealed systems or hardstanding areas are unlikely to introduce new contamination pathways. Likewise, no changes to ground gas pathways are anticipated, and there is minimal potential for any alteration to infiltration or surface runoff patterns.
- 6.4.10. Accordingly, the operational effects remain negligible, with no change to the conclusions of the ES assessment.

Decommissioning Phase Assessment

- 6.4.11. Under Sensitivity Test 2, decommissioning begins in 2075 and lasts approximately 24 months.
- 6.4.12. Decommissioning is expected to comprise shallow excavation (<1m bgl) to remove infrastructure and reinstatement of soils utilising banded topsoil from the initial stripped areas.
- 6.4.13. Potential effects include minor disturbances of soils, possible encounter of previously unidentified contamination, localised ground gas exposure to workers and interactions with shallow groundwater.
- 6.4.14. These impacts remain temporary, low in magnitude and controlled through the principles set out in the **oDEMP [Document Reference 7.3 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**.
- 6.4.15. The later decommissioning date does not alter ground conditions or sensitivities. Residual effects remain negligible, as previously assessed.

Cumulative Effects

6.4.16. Cumulative ground condition effects relate to overlapping construction or ground disturbing activities from other developments. As Sensitivity Test 2 alters only the timing of construction, not the footprint, scale or nature of ground interaction, the cumulative effects identified in the ES assessment remain valid. No materially new or materially different cumulative effects arise under this scenario.

Conclusion

6.4.17. The Sensitivity Test 2 scenario, including a later construction window, multiple connection dates and delayed operation and decommissioning, does not change the outcomes of the ground conditions assessment presented in the ES.

6.4.18. All residual effects remain negligible (not significant), and no new significant environmental effects are introduced.

6.5. Water Resources

Methodology

6.5.1. **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** identifies the potential impacts on the water environment from the construction, operation and decommissioning of the Scheme.

6.5.2. **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** defines four main events with the potential to impact the water environment because of the Scheme. These events include:

- Erosion/sediment movement.
- Chemical/pollution events.
- Alternation/interruption of surface water flows.

6.5.3. Alteration/interruption of ground water flows.

The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated. Construction Phase Assessment

6.5.4. A qualitative assessment has been completed to consider the implications of a revised construction phase on water resources. A qualitative assessment is considered appropriate, noting that, **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** also included a qualitative assessment of the construction phase.

6.5.5. From a construction point of view, **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** considers the effects on flood risk and drainage and water resources during the construction phase of the Scheme.

6.5.6. **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** defines a worst-case construction phase with a 54 month built out period where multiple land parcels are developed concurrently (up to two at the same time). The same construction phase methodology applies to Sensitivity Test 2.

6.5.7. The ES defines a 54-month construction phase starting in 2028. Sensitivity Test 2 requires consideration of a change to the 54-month construction period starting in 2031, three years after that assessed within the ES Volume 2. Within Sensitivity Test 2, the construction phase would occur between 2031 and 2035.

- 6.5.8. The three year change to the construction period assessed as part of Sensitivity Test 2 is not considered to change the assessment within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** or associated conclusions. The justification for this conclusion is provided below.
- 6.5.9. In terms of the effects on flood risk and drainage during the construction phase, regardless of whether construction begins in 2028 (as assessed in the ES) or 2031 (as assessed within Sensitivity Test 2), the proposed mitigation measures including the temporary drainage network to be installed prior to commencement of construction and the silt management and control measures in the **oCEMP [Document Reference 7.1 Revision 3]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, will manage these potential effects and ensure no change to the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** in terms of the effects on flood risk and drainage during the construction phase.
- 6.5.10. In terms of the effects on water resources during the construction phase, regardless of whether construction begins in 2028 (as assessed in the ES) or 2031 (as assessed within Sensitivity Test 2), the proposed mitigation measures including the temporary drainage network to be installed prior to commencement of construction, silt management and control measures in the **oCEMP [Document Reference 7.1 Revision 3]**, secured via Schedule 2 of the draft Development Consent Order **[Document Reference 3.1 Revision 4]**, and the measures to control the storage, handling and disposal of pollutants to be put in place prior to and during construction will manage these potential effects and ensure no change to the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** in terms of the effects on water resources during the construction phase.
- 6.5.11. Overall, the exact start date of construction between 2028 and 2031 is considered to have no material impact on the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**.

Operational Phase Assessment

- 6.5.12. Within Sensitivity Test 2 the Scheme's 40 year operational lifetime would start in 2035 (three years later than assumed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**). The full operational phase of 40 year

remains unchanged from **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**.

- 6.5.13. A qualitative assessment has been completed to consider the implications of a delayed operational phase on water resources.
- 6.5.14. From an operational phase point of view, **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** considers the effects on flood risk and drainage and water resources during the operational phase of the Scheme. A change in the start date to 2035 for the operational phase is not considered to change the assessment within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** or associated conclusions. The justification for this conclusion is provided below.
- 6.5.15. In terms of the effects on flood risk and drainage during the operational phase of the Scheme starting three years later in 2035, these are considered to be negligible. Regardless of the date the operation phase begins, a surface water drainage strategy will be implemented to manage surface water runoff rates and associated flood risk, any proposed culverts will be designed to ensure flow patterns and associated flood risk are not impacted and PV modules and infrastructure will have its lowest edge raised above the modelled 1 in 1,000 year flood level plus 100mm of freeboard to ensure the site remains safe and operational. These mitigation measures, detailed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** will be implemented regardless of the operational start date of the Scheme, ensuring no change to the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**.
- 6.5.16. It is acknowledged that with Sensitivity Test 2 where the operational phase would begin in 2035 (three years later than assumed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**), that the Scheme would remain operational until a date three years later than assessed within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**. It is however considered that the assessment of flood risk and drainage included within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** is suitably conservative and includes a sufficient allowance for climate change that a minor shift by three years is considered to result in no change to the of

conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**.

- 6.5.17. In terms of the effects on water resources, the effect of the operational phase of the Scheme starting three years later in 2035 are considered to be negligible. Regardless of the date the operation phase begins, surface water runoff will be directed to SuDS within the Order Limits which will provide water quality treatment and mitigate the risk of water pollution. Ongoing maintenance of SuDS over the operational lifetime will also be implemented within the Order Limits regardless of the operational start date. These mitigation measures, detailed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** would be implemented for an operational start date in 2032 or 2035, ensuring no change to the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**.

Decommissioning Phase Assessment

- 6.5.18. As detailed in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**, the likely significant effects of the Scheme during decommissioning are likely to be similar to those encountered during construction due to the operations being similar.
- 6.5.19. As with the **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**, this Sensitivity Test therefore considers the effects considered for construction are similarly expected during the decommissioning phase.
- 6.5.20. As discussed above, Sensitivity Test 2 is considered to have no impact on the assessment or conclusions within **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** in terms of construction. The same conclusion is reached for the decommissioning phase.
- 6.5.21. There is considered to be no material impacts on water resources as to whether the construction phase of the Scheme starts in 2028, as assumed in the **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** or three years later in 2031.

Cumulative Effects

6.5.22. The construction, operational and decommissioning phases assessed within this sensitivity assessment are considered to have no impact on the previous cumulative assessment (**ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]**). The Zone of Influence (Zol) and identified developments within the Zol remain unchanged, as does the requirement for the identified developments to manage water resources, flood risk and drainage to ensure they do not have a negative impact at the sites themselves or elsewhere. Cumulative effects are primarily influenced by the scale and nature of development rather than precise timing of overlap; these parameters remain unchanged. Any potential revised temporal overlap would not exceed the conditions already assessed.

Conclusion

6.5.23. It is concluded that the construction, operational and decommissioning scenarios considered in this Sensitivity Test 2 do not change assessment or conclusions drawn in **ES Chapter 10: Water Resources [Document Reference 6.1.10 Revision 2]** and the assessment remains robust.

6.6. Socio Economics

Methodology

- 6.6.1. This section of Sensitivity Assessment 2 has considered direct and indirect effects to socio economics arising from a delayed 54-month construction period starting in 2031, three years after that assessed within the submitted **ES Chapter 11: Socio Economics [APP-048]**. Within Sensitivity Test 2, the construction phase would start in 2031 and end in 2035.
- 6.6.2. The assessment and conclusions set out below for socio economics are judged to apply regardless of the construction period window.

Construction Phase Assessment

- 6.6.3. The assumptions underpinning Sensitivity Test 2 are aligned with the assumptions used to underpin worst case parameters for the assessment of potential effects associated with the construction phase of the Scheme (employment, economic contribution and accommodation demand on visitors and local tourism sector) in the ES.
- 6.6.4. Although the construction programme is assumed to commence later (from 2031 rather than 2028), this does not alter the assessment of effects. This is because construction-related socio-economic effects – including employment generation, economic contribution and accommodation demand – are driven by the scale of the development, workforce requirements, and construction methodology, all of which remain unchanged.
- 6.6.5. The later start date does not affect the number of workers required; the distribution of workers across the construction period; or the geographical context within which accommodation demand is experienced.
- 6.6.6. As such, the magnitude of change and significance of effects on employment, economic contribution and accommodation demand remain as assessed in the **ES Chapter 11: Socio Economics [APP-048]**. The only difference is a temporal shift in when these effects occur, rather than any change in their scale, duration or significance

- 6.6.7. Therefore, there is no change regarding the significance of socio-economic construction phase effects in relation to Sensitivity Test 2 as set out in **ES Chapter 11: Socio Economics [APP-048]**.

Operational Phase Assessment

- 6.6.8. The assumptions for Sensitivity Test 2 do not have implications for the assumptions used to underpin the assessment of operational phase effects presented in the ES. Operational phase socio-economic effects are limited in nature and are primarily associated with ongoing employment (minimal operational workforce) and business rate generation.
- 6.6.9. These effects are determined by the scale and operational requirements of the Scheme, which are unchanged under Sensitivity Test 2.
- 6.6.10. Although the operational phase is assumed to commence later (from 2035) and therefore extend to a later end date, this does not influence the level of employment generated; the nature of economic benefits; or the baseline economic context in a way that would materially alter significance.
- 6.6.11. The revised scenario therefore results only in a temporal shift in when operational benefits are realised, rather than any change in their magnitude or significance.
- 6.6.12. Therefore, there is no implication for the significance of potential effects during this development phase from those presented in **ES Chapter 11: Socio Economics [APP-048]**.

Decommissioning Phase Assessment

- 6.6.13. The assumptions underpinning Sensitivity Test 2 are aligned with the assumptions used to underpin worst case parameters for the assessment of potential effects associated with the decommissioning phase of the Scheme (employment, economic contribution and accommodation demand on visitors and local tourism sector) in the ES. These factors remain unchanged under Sensitivity Test 2, as they are determined by the size and nature of the Scheme and the decommissioning methodology, which are consistent with the ES assessment.

- 6.6.14. The later point of decommissioning does not introduce any new demand pressures or materially alter accommodation capacity within the study area; or the distribution of effects across the relevant local authorities.
- 6.6.15. As such, the magnitude and significance of socio-economic effects during decommissioning remain as assessed in the ES.
- 6.6.16. The only change is a temporal shift in when these effects occur, rather than any change in their scale, duration or significance. Therefore, there is no change regarding the significance of socio-economic decommissioning phase effects in relation to Sensitivity Test 2 as set out in **ES Chapter 11: Socio Economics [APP-048]**.

Cumulative Effects

- 6.6.17. The assumptions underpinning Sensitivity Test 2 are aligned with the assumptions used to underpin worst case parameters for the assessment of potential cumulative effects associated with each development phase of the Scheme in the ES.
- 6.6.18. Sensitivity Test 2 introduces a change to the construction, operational and decommissioning phases, which may alter the timing of overlap with other developments. However, this does not change the scale or nature of the Scheme, nor the key drivers of cumulative effects, including workforce demand, employment generation and accommodation requirements. While the extent of overlap with other schemes may vary, this represents only a temporal shift in activity rather than an increase in overall demand.
- 6.6.19. Therefore, there is no change regarding the significance of socio-economic cumulative effects in relation to Sensitivity Test 2 as set out in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

Conclusion

- 6.6.20. In respect of socio-economics, the significance of effect of each of the potential effects assessed for each development phase remains the same for Sensitivity Test 2 as was stated in the ES.

6.7. Transport and Access

Methodology

- 6.7.1. The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated.
- 6.7.2. A robust assessment of the likely significant effects has already been considered in **ES Chapter 12 Transport and Access [APP-049]** as it assumes all five Land Parcels are constructed at the same time and therefore all construction vehicle movements are assumed to be on the highway network at the same time. It also provides annual average daily traffic (AADT) flow figures which have been calculated based upon 365 days, and therefore all construction vehicle movements are condensed into one year which will not occur in reality. Therefore, the potential changes in the construction, operation and decommissioning parameters set out in Sensitivity Test 2 are accommodated within the assessment provided in **ES Chapter 12 Transport and Access [APP-049]**.

Construction Phase Assessment

- 6.7.3. A change in the construction period of 54 months starting in 2031 (three years after that assessed within the submitted ES) and the construction of no more than two land parcels at any one time would not affect the conclusions of the **ES Chapter 12 Transport and Access [APP-049]** based on the methodology currently applied, and the assessment remains unchanged and robust.
- 6.7.4. In addition, the potential change in construction period starting in 2031 does not affect the forecast vehicle trips associated with the construction phase, nor the assessed baseline year. **ES Chapter 12: Transport and Access [APP-049]** assesses the effects of the Scheme against a base year of 2023 and there assumes no growth in background traffic to future years. This is a robust assessment of the effects of the Scheme as any growth in background traffic would equate to a reduced percentage impact associated with the Scheme.

Operational Phase Assessment

- 6.7.5. Whilst the connection date differs, this does not affect the forecast vehicle trips associated with the operational phase and therefore the assessment in **ES Chapter 12 Transport and Access [APP-049]** is unchanged and remains robust.

Decommissioning Phase Assessment

- 6.7.6. The impacts and effects associated with the decommissioning phase under Sensitivity Test 2: commencing in 2075 are anticipated to be the same as the construction phase. A detailed assessment will be provided closer to the time of decommissioning in order to obtain accurate information on the background operation of the local highway network at that time. Therefore, the assessment in **ES Chapter 12 Transport and Access [APP-049]** is unchanged and remains robust. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES. **ES Chapter 12: Transport and Access [APP-049]** assesses the effects of the Scheme against a base year of 2023 and assumes no growth in background traffic to future years. This is a robust assessment of the effects of the Scheme as any growth in background traffic would equate to a reduced percentage impact.

Cumulative Effects

- 6.7.7. Any impact of cumulative effects has been considered. The potential changes in the construction, operation and decommissioning parameters set out in Sensitivity Test 2 are accommodated within the assessment provided in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** and therefore Sensitivity Test 2 has no impact on Cumulative Effects. This is because the list of cumulative sites is unchanged and the only highway link that would be affected is Link 3 which is shared between the Scheme and Site ID 17. Site ID 17's construction phase is anticipated to be 2026–2036 and the construction period of the Scheme within Sensitivity Test 2 could be 2031–2035 and therefore the potential for overlap between the construction phases still exists and has been assessed within **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

Conclusion

- 6.7.8. It is concluded that **ES Chapter 12 Transport and Access [APP-049]** provides a robust assessment of the Scheme during the construction, operation and decommissioning phases that would not be affected by the changes in Sensitivity Test 2.

6.8. Noise and Vibration

Methodology

- 6.8.1. The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated.
- 6.8.2. The assessments presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** are not time sensitive in so far as the calculated noise and vibration impacts, including those during the construction phase, would not vary with the conditions under Sensitivity Test 2. The sections below provide further detail on the potential implications of the different phases.

Construction Phase Assessment

- 6.8.3. The construction noise calculations presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** are simplified in nature, based on the distance between the identified receptor locations and the closest solar PV module. This is considered a worst-case assessment and, would not vary with the conditions under Sensitivity Test 2: a 54 month construction period and no more than two Land Parcels constructed at any one time. Indeed, the separation distances between panel areas and closest receptors are such that, even if two panel areas were under construction at one time, the calculated noise levels would conform to the identified limits. Given this, the construction phase calculations in **Table 13-13** of **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** still represent a valid assessment of construction noise activities.
- 6.8.4. Similarly, the noise impacts associated with the use of directional drilling would not vary with either test scenario.
- 6.8.5. The vehicle movement information provided in **ES Chapter 12: Transport and Access [APP-049]** is considered a worst-case assessment and would not change in this Sensitivity Test 2 assessment. To that end, the assessments presented in **Table 13-15** of **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** are considered a worst-case assessment and would not change for this Sensitivity Test 2.

- 6.8.6. Similarly, with ground borne vibration, the change in construction dates would not change the relative distances between the receptors and construction activities. As such, the levels of ground borne construction vibration would not vary and remain below the no significant observed adverse effect level.

Operational Phase Assessment

- 6.8.7. The calculations for the operational phase presented in **ES Chapter: 13 Noise and Vibration [Document Reference 6.2.13 Revision 2]** are based on the whole Scheme operating at any one time. This is considered a worst-case scenario and would still apply regardless of the start year. The impacts would be lower for a partially operating scheme as the wider scheme is brought into operation.
- 6.8.8. The measured baseline noise levels would likely change between assessment years; however, noise levels would likely increase in line with increases in road traffic flows etc. An increase in background sound level would slightly reduce the overall noise impact, as this is assessed relative to the baseline. However, any reduction due to a change in baseline would be incremental and unlikely to be perceptible in real terms.
- 6.8.9. Given the above, the operational noise impact presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** would not change for Sensitivity Test 2. The only difference is that any effects taking place could be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Decommissioning Phase Assessment

- 6.8.10. Noise impacts during the decommissioning phase are expected to be similar to those for the construction phase and would also not vary with change in the decommissioning year. The only difference, again, is that any effects would be shifted temporally. This does not mean the duration of effects will be experienced for longer and therefore the assessed significance of effects does not change from the scenario assessed in the ES.

Cumulative Effects

- 6.8.11. As summarised in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** The cumulative impacts arising from the Scheme and the identified cumulative sites would be, at worst, Minor (not significant). The change of dates associated with Sensitivity Test 2 would not change the impact significance though would alter the dates in which they may occur.

Conclusion

- 6.8.12. The assessment presented in **ES Chapter 13: Noise and Vibration [Document Reference 6.2.13 Revision 2]** present the worst-case scenarios for the construction, operation and decommissioning phases and would not change in the Sensitivity Test 2.

6.9. Air Quality and Greenhouse Gases

Methodology

- 6.9.1. This Sensitivity Test 2 assessment considers the implications of a revised connection date (and therefore construction, operational and decommissioning programmes) on the findings of **Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**.
- 6.9.2. In accordance with the Scoping Opinion (**ES Appendix 1.1 Planning Inspectorate's EIA Scoping Opinion [APP-057]**) the impacts of the decommissioning phase were scoped out of **Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]** on the basis that road traffic and greenhouse gas emissions at the time of decommissioning are expected to be zero.
- 6.9.3. The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated.
- 6.9.4. The assessment and conclusions set out below for air quality are judged to apply regardless of the construction period window.

Construction Phase Assessment

- 6.9.5. As described in Section 6.7, there will be no changes to the traffic generated as a result of the construction programme and approach considered under Sensitivity Test 2. As such, if the Sensitivity Test 2 scenario were to materialise, it is reasonable to assume that the air quality impacts from construction traffic will be, as a worst-case, equal to, those presented in **ES Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**. Further, as Table 14-8 in **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]** demonstrates, air quality conditions are improving over time, such that emissions from vehicles in 2031 would be lower than if construction commenced in 2028.
- 6.9.6. Similarly, to ensure a robust package of mitigation measures is developed, the construction dust risk assessment assumed that the entire area within the Order Limits is worked concurrently; if no more than two parcels are developed concurrently, then the risk of impacts from construction dust is likely to be lower

than assessed in **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**.

- 6.9.7. In terms of greenhouse gas emissions, the construction phase emissions are predominated by embodied carbon (i.e. the mining and processing of raw materials and manufacturing of construction components such as PV panels). Embodied carbon contributes over 75% of total lifecycle emissions. The assessment of embodied carbon uses present day data. This represents a worst-case scenario, because as the global economy decarbonises in the future, the embodied emissions of materials and components are likely to reduce, resulting in lower overall carbon emissions. A later phased connection date would result in lower embodied carbon emissions. Emissions from transport and construction activities would also likely be lower and as such, Sensitivity Test 2 would not materially change the construction phase greenhouse assessment set out in **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**.

Operational Phase Assessment

- 6.9.8. **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]** stated that during operation, activities onsite would amount to servicing and maintenance of plant and equipment associated with the Scheme, which will result in approximately one visit to the Scheme per month, equivalent to less than one vehicle movement per day. This trip generation will lead to negligible impacts regardless of future air quality conditions (i.e. the start year of the Scheme).
- 6.9.9. The greenhouse gas assessment calculates the carbon savings (benefits) based on two alternative baseline scenarios as described in Paragraph 14.3.22 of **ES Chapter 14 Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**.
- 6.9.10. Sensitivity Test 2 has no material effect on the results or conclusions with respect to Alternative Baseline 2 which compares the Scheme's lifecycle emissions to the lifecycle emissions of a new power generation facility.
- 6.9.11. In terms of Alternative Baseline 1, a later phased connection date of 2035 will reduce the reported carbon benefits slightly, as Alternative Baseline 1 assumes that CCGT power generation operates unabated until 2035 and is then upgraded

with CCS. This means that compared to a phased connection date commencing in 2029, there is a reduction in carbon savings as it is assumed that CCS will be installed from the start of operation (2035). The changes are summarised as follows:

- 2029–2032 phased connection (as set out in **ES Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**): -2,922,019 TCO_{2e}
- 2031–2035 phased connection: -1615,862 TCO_{2e}

6.9.12. The 2031–2035 connection scenario represents a lower-bound to the benefit, such that an earlier more rapid phasing to an earlier connection date (e.g. 2032) will have predicted carbon savings which sit between the two values shown above. Although the estimated carbon savings will be lower, the conclusions of the assessment will remain a beneficial significant effect and not be materially changed to those set out in **ES Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2]**.

Cumulative Effects

6.9.13. Since there are no changes to traffic volumes generated by the Scheme, such that the air quality effects remain not significant regardless of baseline conditions, and measures to address cumulative construction dust impacts have been set out in **ES Appendix 14.6 Construction Mitigation [Document Reference APP-119]**, it is judged that the cumulative air quality effects associated with Sensitivity Test 2 will remain as previously assessed in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**. Similarly, as the greenhouse gas assessment is intrinsically cumulative, and the effects of the Scheme in isolation are concluded to not be materially different, it is judged that the cumulative air quality effects associated with Sensitivity Test 2 will remain as previously assessed in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

Conclusion

6.9.14. Overall, it is concluded that the assumptions considered in Sensitivity Test 2 will not materially affect the air quality conclusions in **ES Chapter 14: Air Quality and**

Greenhouse Gases [Document Reference 6.2.14 Revision 2]. Overall, the air quality effects will be not significant, and the assessment remains robust.

- 6.9.15. Overall, it is concluded that the assumptions considered in Sensitivity Test 2 will not materially affect the greenhouse gas conclusions in **ES Chapter 14: Air Quality and Greenhouse Gases [Document Reference 6.2.14 Revision 2].** Overall, the greenhouse gas effects will be significant beneficial, and the assessment remains robust.

6.10. Agricultural Circumstances

Methodology

- 6.10.1. The methodology of Sensitivity Test 2 is set out in Section 4 of this report and is not therefore repeated.

Construction Phase Assessment

- 6.10.2. The potential impacts and effects of the construction phase are described in the ES, particularly section 15.5. This describes the installation process for the panel areas, tracks, fixed equipment and BESS areas. The soils and agricultural land are generally unaffected. The installation of the PV panel mounting structures is not generally disturbing to soils or land quality, and disturbance is limited mostly to the tracks and fixed infrastructure areas. These areas are generally temporarily affected and can be restored fully to the original Agricultural Land Classification (ALC) grade on decommissioning.
- 6.10.3. **ES Chapter 15: Agricultural Circumstances [APP-052]** assumes that soils and agricultural land will only be moved when it is a suitable condition, and that trafficking (i.e. vehicles movements over soil) will be minimised when soils are not in a suitably dry state. These measures are set out in the **Outline Soil Management Plan (oSMP) [Document Reference 7.8 Revision 3]** which is secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**.
- 6.10.4. As identified in the **ES Chapter 15: Agricultural Circumstances [APP-052]** section 15.4 [APP-052], some of the land within the Order Limits can lie wet in the winter. The **oSMP [Document Reference 7.8 Revision 3]** section 3 describes soil suitability tests that will be needed. As set out in section 3.1.1 of the **oSMP [Document Reference 7.8 Revision 3]**, careful management and minimal soil movement will need to be engaged especially for work between October and March inclusive.
- 6.10.5. Sensitivity Test 2 would have a construction phase of 54 months. This is the same time period as assessed within **ES Chapter 15: Agricultural Circumstances [APP-052]**.

- 6.10.6. There would be no changes to the levels of effects on upon soils or agricultural activities within the Order Limits detailed in **ES Chapter 15: Agricultural Circumstances [APP-052]**.

Operational Phase Assessment

- 6.10.7. Operational effects on agricultural land are primarily associated with the permanent and temporary loss of agricultural land, changes to field patterns, and any constraints on agricultural land management arising from the presence of infrastructure. These effects are determined by the extent, layout and design of the Scheme, all of which remain unchanged under Sensitivity Test 2.

- 6.10.8. There would be no changes to the duration of the operational phase, or its operation, and consequently there would be no changes to the levels of effects on upon soils or agricultural activities within the Order Limits detailed in **ES Chapter 15: Agricultural Circumstances [APP-052]**. The change in programme therefore results only in a temporal shift in when operational effects are experienced,

Decommissioning Phase Assessment

- 6.10.9. Decommissioning effects are driven by the temporary disturbance of agricultural land during removal of infrastructure and the restoration of land to agricultural use following decommissioning.

- 6.10.10. These effects are governed by the extent of infrastructure removal and reinstatement methodology, which are unchanged under Sensitivity Test 2

- 6.10.11. There would be no changes to the levels of effects on upon soils or agricultural activities within the Order Limits detailed in **ES Chapter 15: Agricultural Circumstances [APP-052]**. The revised programme represents only a shift in the timing of effects, rather than any change in their nature or scale.

Cumulative Effects

- 6.10.12. The submitted assessment of cumulative and in-combination effects in relation to Agriculture and Soils identified no significant effects would arise. This assessment can be found within **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**.

6.10.13. This Sensitivity Test 2 assessment has considered the construction phasing and has not identified any changes that would lead to additional cumulative or in-combination effects. The extent of land affected by the Scheme remains unchanged, and therefore its contribution to cumulative effects is identical to that assessed in the ES. Any variation in overlap with other cumulative developments represents only a temporal shift in agricultural disturbance, rather than an increase in the total area of land affected. Accordingly, while the timing of potential overlap may vary, this falls within the reasonable worst-case envelope assessed in the ES and does not alter the magnitude or significance of cumulative effects.

Conclusion

6.10.14. There will be no changes to the assessment of effects for Sensitivity Test 2 relative to the assessment presented in **Chapter 15: Agricultural Circumstances [APP-052]** for the construction, operation or decommissioning phases.

6.11. Other Environmental Topics

6.11.1. The environmental topics listed below did not warrant individual chapters due to the limited impacts associated with the Scheme. Therefore, the assessment of the phasing scenario of multiple connection dates splitting the Scheme's capacity within the 2031–2035 window (Sensitivity Test 2) is considered with proportionate assessment provided given these topics were not required to be assessed as a standalone topic.

Major Accidents and Disasters

Construction Phase Assessment

6.11.2. Construction effects in the ES were subcategorised into effects on Health and Safety at Work, Trenchless Works and Existing Infrastructure, Fire, Utilities Failure and Criminal Damage. All of the Major Accident and Disaster risks assessed during construction are identified as not significant. The methodology for determining significance of effect relies on geographic extent, duration, severity, degree of harm and sensitivity of receptors. No changes in the construction period parameters for Sensitivity Test 2 have any influence on the conclusions of the ES.

6.11.3. Risks of Major Accidents and Disasters are mitigated through adhering to appropriate risk assessments within the **oCEMP [Document Reference 7.1 Revision 3]** and **oBSMP [APP 179]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, and embedded design features within the Scheme. Therefore, with mitigation in place the risk of accidents and disaster events at the Scheme is considered and remains low and not significant when applying Sensitivity Test 2 construction parameters.

6.11.4. The conclusions set out for the construction phase for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Operational Phase Assessment

6.11.5. Operational effects in the ES were subcategorised into effects on Health and Safety at Work, Trenchless Works and Existing Infrastructure, Fire, Utilities Failure

and Criminal Damage. All of the Major Accident and Disaster risks assessed during operation are identified as not significant. The methodology for determining significance of effect relies on geographic extent, duration, severity, degree of harm and sensitivity of receptors. The delay in the operational period for Sensitivity Test 2 has no influence on the conclusions set out for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.

- 6.11.6. Risks of Major Accidents and Disasters are mitigated through adhering to appropriate risk assessments within the **oOEMP [Document Reference 7.2 Revision 2]** and **oBSMP [APP- 179]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, and embedded design features within the Scheme. Therefore, with mitigation in place the risk of accidents and disaster events at the Scheme is considered and remains low and not significant when applying Sensitivity Test 2 operational parameters.
- 6.11.7. The conclusions set out for the operational phase for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** of the ES therefore remain robust.

Decommissioning Phase Assessment

- 6.11.8. Decommissioning effects in the ES were subcategorised into effects on Health and Safety at Work, Trenchless Works and Existing Infrastructure, Fire, Utilities Failure and Criminal Damage. All of the Major Accident and Disaster risks assessed during decommissioning are identified as not significant. The methodology for determining significance of effect relies on geographic extent, duration, severity, degree of harm and sensitivity of receptors. The delay in the decommissioning period for Sensitivity Test 2 has no influence on the conclusions set out for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 6.11.9. Risks of Major Accidents and Disasters are mitigated through adhering to appropriate risk assessments within the **oDEMP [Document Reference 7.3 Revision 3]** and **oBSMP [APP 179]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**, and embedded design features within the Scheme. Therefore, with mitigation in place the risk of accidents and disaster events at the Scheme is considered and

remains low and not significant when applying Sensitivity Test 2 decommissioning parameters.

- 6.11.10. The conclusions set out for the decommissioning phase for Major Accidents and Disasters in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Cumulative Effects

- 6.11.11. The shortlist of other cumulative schemes are not located in the immediate proximity of the Order Limits to have any notable cumulative effects in regard to risks of Major Accidents and Disasters. The Sensitivity Test 2 parameter changes for the construction, operation and decommissioning phases do not influence the conclusions set out for Cumulative Effects for Major Accidents and Disasters in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**, with no significant cumulative effects anticipated to arise.
- 6.11.12. Therefore, the Cumulative Effects for Major Accidents and Disasters in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** remain robust.

Conclusion

- 6.11.13. In conclusion, the assessment undertaken for Sensitivity Test 2 identifies there are no material changes to the assessment and conclusions identified in the ES for Major Accidents and Disasters.

Waste

Construction Phase Assessment

- 6.11.14. The change in the construction period parameters for Sensitivity Test 2 has no major bearing on the conclusions of the ES following the methodology approach of assessing waste via landfill diversion as set out in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**. The total materials used, total waste generated, destinations of waste streams and quantity of material capable of being recycled does not differ with the change in parameters.

- 6.11.15. Waste is mitigated through adhering to the waste hierarchy and measures set out within the **oCEMP [Document Reference 7.1 Revision 3]** and Site Waste Management Plan (secured within the Construction Environmental Management Plan), and **oSMP [Document Reference 7.8 Revision 3]** as secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place waste for the Scheme is considered and remains not significant when applying Sensitivity Test 2 construction parameters.
- 6.11.16. The conclusions set out for the construction phase for Waste in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Operational Phase Assessment

- 6.11.17. The delay in the operational period for Sensitivity Test 2 has no influence on the conclusions set out for Waste in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 6.11.18. Waste is mitigated through adhering to the waste hierarchy and measures set out within the **oOEMP [Document Reference 7.2 Revision 2]** and **oSMP [Document Reference 7.8 Revision 3]**, as secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place waste for the Scheme is considered and remains not significant when applying Sensitivity Test 2 operational parameter.
- 6.11.19. The conclusions set out for the operational phase for Waste in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Decommissioning Phase Assessment

- 6.11.20. The delay in the decommissioning period for Sensitivity Test 2 has no influence on the conclusions set out for Waste in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 6.11.21. Waste is mitigated through adhering to the waste hierarchy and measures set out within the **oDEMP [Document Reference 7.3 Revision 3]** and **oSMP [Document Reference 7.8 Revision 3]** as secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore,

with mitigation in place waste for the Scheme is considered and remains not significant when applying Sensitivity Test 2 decommissioning parameter.

- 6.11.22. The conclusions set out for the decommissioning phase for Waste in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Cumulative Effects

- 6.11.23. The shortlist of other cumulative schemes could have cumulative effects for the construction or decommissioning phases if the Schemes coincides with the equivalent phases on other cumulative schemes. However, this is considered unlikely for a complete overlap. The Sensitivity Test 2 parameter changes for the construction, operation and decommissioning phases do not alter the conclusions set out for Cumulative Effects for Waste in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**, with no significant cumulative effects anticipated to arise.
- 6.11.24. Therefore, the Cumulative Effects for Waste in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** remain robust.

Conclusion

- 6.11.25. In conclusion, the assessment undertaken for Sensitivity Test 2 identifies there are no material changes to the assessment and conclusions identified in the ES for Waste and no updates are needed to the ES.

Electric and Electromagnetic Fields

Construction & Decommissioning Phase Assessment

- 6.11.26. Effects during the construction and decommissioning phases of the Scheme are scoped out of the assessment as the cables will not produce any significant EMFs until the Scheme is generating electricity when it is operational.

Operational Phase Assessment

- 6.11.27. The delay in the operational period for Sensitivity Test 2 has no influence on the conclusions set out for Electric and Electromagnetic Fields in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]**. The

methodology to assess effects of Electric and Electromagnetic Fields in the ES identifies if proposed infrastructure of the Scheme exceeds exposure limits. A delay in an operational start date has no bearing on the assessment methodology.

6.11.28. Therefore, effects of Electric and Electromagnetic Fields for the Scheme is considered and remains not significant when applying Sensitivity Test 2 operational parameters.

6.11.29. The conclusions set out for the operational phase for Electric and Electromagnetic Fields in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Cumulative Effects

6.11.30. The Sensitivity Test 2 parameters have no influence on Electric and Electromagnetic Fields cumulative effects with the Scheme in combination with other identified cumulative schemes. Therefore, the Sensitivity Test 2 parameter changes for the construction, operation and decommissioning phases do not alter the conclusions set out for Cumulative Effects for Electric and Electromagnetic Fields in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]**, with no significant cumulative effects anticipated to arise.

6.11.31. Therefore, the Cumulative Effects for Electric and Electromagnetic Fields in **ES Chapter 17: Cumulative Impacts [Document Reference 6.2.17 Revision 2]** remain robust.

Conclusion

6.11.32. In conclusion, the assessment undertaken for Sensitivity Test 2 identifies there are no material changes to the assessment and conclusions identified in the ES for Electric and Electromagnetic Fields.

Climate Change and Resilience

Construction Phase Assessment

- 6.11.33. The change in the construction period parameters for Sensitivity Test 2 has no influence on the conclusions of the ES as set out in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 6.11.34. Resilience and adaptation to climate change is mitigated through adhering to measures set out within relevant management plans, including the **oCEMP[APP-176]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place resilience and adaptation to climate change for the Scheme is considered and remains not significant when applying Sensitivity Test 2 construction parameters.
- 6.11.35. The conclusions set out for the construction phase for Climate Change Resilience and Adaptation in **ES Chapter 16 Other: Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Operational Phase Assessment

- 6.11.36. The delay in the operational period for Sensitivity Test 2 has no influence on the conclusions set out for Climate Change Resilience and Adaptation in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.
- 6.11.37. Resilience and adaptation to climate change is mitigated through adhering to measures set out within relevant management plans, including the **oCEMP [APP-177]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place, and taking into account the judgement in Paragraph 6.5.16, resilience and adaptation to climate change for the Scheme is considered and remains not significant when applying Sensitivity Test 2 operational parameters.
- 6.11.38. The conclusions set out for the operational phase for Climate Change Resilience and Adaptation in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Decommissioning Phase Assessment

- 6.11.39. The delay in the decommissioning period for Sensitivity Test 2 has no influence on the conclusions set out for Climate Change Resilience and Adaptation in **ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]**.

- 6.11.40. Resilience and adaptation to climate change is mitigated through adhering to measures set out within relevant management plans, including the **oDEMP [APP-178]**, secured via Schedule 2 of the **draft Development Consent Order [Document Reference 3.1 Revision 4]**. Therefore, with mitigation in place resilience and adaptation to climate change for the Scheme is considered and remains not significant when applying Sensitivity Test 2 decommissioning parameters.
- 6.11.41. The conclusions set out for the decommissioning phase for Climate Change Resilience and Adaptation in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Cumulative Effects

- 6.11.42. Cumulative effects have been scoped out of the ES in line with the agreed brevity of the Climate Change Resilience and Adaptation assessment scope required in the EIA.

Conclusion

- 6.11.43. In conclusion, the assessment undertaken for Sensitivity Test 2 identifies there are no material changes to the assessment and conclusions identified in the ES for Climate Change Resilience and Adaptation.

Glint and Glare

Construction & Decommissioning Phase Assessment

- 6.11.44. Effects during the construction and decommissioning phases of the Scheme are scoped out of the assessment as the operational effects identify the worst-case scenario of all infrastructure, including the solar panels predominantly creating glint and glare effects. Therefore, any effects in the construction or decommissioning phase will be to a lesser degree than the effects identified for the operational phase.

Operational Phase Assessment

- 6.11.45. The delay in the operational period for Sensitivity Test 2 has no influence on the conclusions set out for Glint and Glare in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]**. The methodology to assess

effects of Glint and Glare is through modelling the two layout options in the ES to identify the degree of glint and glare on identified receptors. A delay in an operational start date has no bearing on the assessment methodology.

- 6.11.46. Therefore, effects of Glint and Glare for the Scheme is considered and remains not significant when applying Sensitivity Test 2 operational parameters.
- 6.11.47. The conclusions set out for the operational phase for Glint and Glare in **ES Chapter 16: Other Environmental Topics [Document Reference 6.2.16 Revision 2]** therefore remain robust.

Cumulative Effects

- 6.11.48. Cumulative effects have been scoped out of the ES in line with the agreed brevity of the Glint and Glare assessment scope required in the EIA.

Conclusion

- 6.11.49. In conclusion, the assessment undertaken for Sensitivity Test 2 identifies there are no material changes to the assessment conclusions identified in the ES for Glint and Glare.

7 Summary

- 7.1.1. This Sensitivity Test Report considers two phasing scenarios reflecting the remaining uncertainty regarding the final NESO connection offer. The scenarios considered are as follows:
- **Sensitivity Test 1** – A single connection date within the 2031–2035 window.
 - **Sensitivity Test 2** – Multiple connection dates splitting the Scheme’s capacity within the 2031–2035 window.
- 7.1.2. For both Sensitivity Test scenarios, the consequential changes to the construction, operational and decommissioning phases were considered against the assumptions and findings of the ES.
- 7.1.3. The key changes for Sensitivity Test 1 were the contraction of the construction programme from 54 months to 36 months. As a consequence of this contraction, construction could be taking place at any one time on up to three parcels within the Order Limits rather than the two parcels assessed within the submitted ES.
- 7.1.4. There still needs to be some level of flexibility in the commencement date for construction, which has been considered within Sensitivity Test 1. This flexibility results in the operational phase either commencing in 2031 (Scenario 1) or 2035 (Scenario 2). The operational phase remains at 40 years under both scenarios.
- 7.1.5. The key changes for Sensitivity Test 2 relate to moving the connection dates to the back end of 2031–2035 and connection being in a phased approach. It has therefore been assumed the earliest phase of connection could be in mid-2032 and that the Scheme would be fully operational at the end of 2035.
- 7.1.6. To achieve this, the earliest construction in Sensitivity Test 2 could start is 2031. Construction would either be over a single phased approach where Land Parcels are constructed sequentially one after the other, or via a multi-phased approach where no more than two Land Parcels (within Land Parcels A–E) could be under construction at any one time. The construction programme would remain at 54 months as assessed in the ES and the operational life remains at 40 years.
- 7.1.7. Each of the technical disciplines ‘scoped in’ to the Environment Statement has considered these scenarios and considered them within the assessment criteria.

- 7.1.8. The assessment has shown that both Sensitivity Test 1 and Sensitivity Test 2 would not give rise to any materially new or materially different effects for the Scheme in any phase.
- 7.1.9. The assessment has also shown that both Sensitivity Test 1 and Sensitivity Test 2 would not change the residual likely significant effects for the Scheme for any of the technical disciplines in any phase.
- 7.1.10. **Table 7-1** provides a summary table of the residual effects for the ES Environmental Aspect Chapters (**ES Chapters 6 – 17 [APP-043 – Document Reference 6.2.17 Revision 2]**) confirming that the residual effects identified in the ES have not changed through applying the Sensitivity Test 1 & Sensitivity Test 2 assessments.

Table 7-1 – Summary Table of Residual Effects applying Sensitivity Test 1 and 2

ES Environmental Aspect Chapter	Sensitivity Test 1 – Residual Effect comparison to the ES	Sensitivity Test 2 Residual Effect comparison to the ES
ES Chapter 6 Landscape and Visual [Document Reference 6.2.6 Revision 3]	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.
ES Chapter 7 Ecology and Nature Conservation [Document Reference 6.2.6 Revision 3]	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.
ES Chapter 8 Cultural Heritage and Archaeology [Document Reference 6.2.8 Revision 2]	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.
ES Chapter 9 Ground Conditions [APP-046]	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.
ES Chapter 10 Water Resource [Document Reference 6.2.10 Revision 2]	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.
ES Chapter 11 Socio Economics [APP-048]	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.	No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.

<p>ES Chapter 12 Transport and Access [APP-049]</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>
<p>ES Chapter 13 Noise and Vibration [Document Reference 6.2.13 Revision 2]</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>
<p>ES Chapter 14 Air Quality & Greenhouse Gases [Document Reference 6.2.14 Revision 2]</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>
<p>ES Chapter 15 Agricultural Circumstances [APP-052]</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>
<p>ES Chapter 16 Other Environmental Topics [Document Reference 6.2.16 Revision 2]</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>	<p>No change to the likely significant residual effects identified in the ES for the construction, operation, decommissioning phases.</p>
<p>ES Chapter 17 Cumulative Impacts [Document Reference 6.2.17 Revision 2]</p>	<p>No change to the likely significant residual effects identified in the ES for all environmental aspect chapters for cumulative effects.</p>	<p>No change to the likely significant residual effects identified in the ES for all environmental aspect chapters for cumulative effects.</p>