EIA Screening Opinion – Further Information Review

For: Andrew Law, Development Management Specialist, North Lincolnshire Council

Application: Ref. PA/2024/275 Wressle Wellsite, Lodge Farm, Clapp Gate, Appleby, North Lincolnshire DN15 0DB – Extension to the Wressle Wellsite and associated pipeline

Date: 20 November 2025

Dear Andrew,

1. As requested this note provides a review of the revised greenhouse gas (GHG) emissions assessment submitted in support of planning application ref. PA/2024/275 (Wressle Wellsite, Appleby). I understand you require a review of the submitted information's adequacy with respect to its use in an Environmental Impact Assessment (EIA) screening decision.

2. I understand the amended assessment responds to guidance published in June 2025 by the Department of Energy Security and Net Zero (DESNZ). That guidance covers the assessment of distant downstream (Scope 3, Category 11) GHG emissions from oil and gas development.

3. I understand the DESNZ guidance addresses the offshore oil and gas industry. The guidance is however applicable to onshore oil and gas development. It is anticipated that oil and gas developers, including onshore sites, take the DESNZ guidance into account when seeking planning permission for new or extended development.

The Proposal

4. The current application (ref. PA/2024/275) relates to an established oil and gas wellsite, Wressle-1, sited on land at Lodge Farm near Appleby in North Lincolnshire. Planning permission (ref. APP/Y2003/W/19/3221694) was granted on Appeal in January 2020 for Wressle-1's retention and use for oil and gas production. The Wressle-1 permission expires in 2034, at which time oil and gas production would cease.

5. The current application seeks to extend the Wressle-1 wellsite, adding two production boreholes (Wressle-2 and Wressle-3) and associated site infrastructure. A 600 metre below ground gas pipeline is also proposed to export produced gas to the national gas grid. Permission is sought for a 15-year period. The submitted GHG assessment assumes production would commence in 2026 and cease in 2039.

The submitted GHG assessment

6. The submitted GHG assessment comprises the following reports.

   - Scope 3, Category 11 Emissions Assessment - Assessment of "use of sold product" emissions for future production from the existing Wressle development and proposed field extension; prepared by sustain:*able*, dated 24 July 2025. For clarity this report is subsequently referred in this note to as the "Scope 3 Report".

   - Scope 1, 2 and 3 Emissions Forecast for Wressle Field Development; prepared by sustain:*able*, dated 25 July 2025. For clarity this report is subsequently referred to in this note as the "Scopes 1,2 and 3 Report".

7. Those reports assume future extraction will achieve or exceed the P10 (high) production forecast. That includes oil and gas with a probability of extraction equal to or less than 10%. Emissions associated with the P90 and P50 production scenarios are not quantified in the submitted reports.

8. The Wressle-1 well has planning permission with production due to cease in 2034. A baseline projection of distant downstream emissions for the existing Wressle-1 well is set out in Table 5 (p.17) of the Scope 3 Report. Projected sales of oil produced from Wressle-1 under the P10 scenario between 2025 and 2034 would be 41,233 tonnes. Combustion of that oil would result in 129,885 tonnes of carbon dioxide equivalent (tCO_2e). The assessment considers the committed Wressle-1 emissions.

EIA Screening – the Regulations and national Planning Practice Guidance

9. The question before the Planning Authority is whether the proposal would have likely significant environmental effects and be classed as 'EIA development'. The project falls within the scope of paragraphs 3(d), 3(e) and 10(k) of Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the EIA Regulations).

10. Schedule 1 (paragraph 14) of the EIA Regulations sets thresholds above which EIA is mandatory for oil and gas development. For oil the threshold is extraction of more than 500 tonnes per day. For gas the threshold is extraction of more than 500,000 cubic metres per day.

11. For development falling within Schedule 2 (paragraph 2(e) – surface installations for oil and gas extraction) of the EIA Regulations the national Planning Practice Guidance on EIA (nPPG (EIA)) advises EIA is more likely required to produce more than 100,000 tonnes per year of oil and/or gas. The nPPG (EIA) identifies 'emissions to air' as a key issue to consider in screening decisions for oil and gas development. 'Emissions to air' could be interpreted to include GHG emissions.

12. Table 2 (p.13) of the applicant's Scope 3 Report projects the following sales of produced oil and gas from the existing and additional wells between 2025 and 2039 under the P10 (high) production scenario.

- Wressle 1 – Total P10 oil - 2025-2034: 41,233 tonnes.
- Wressle 2 and 3 – Total P10 oil – 2026-2039: 137,594 tonnes.
- Wressle 1, 2 and 3 – Total P10 gas – 2026-2039: 122,221 tonnes.

13. Figure 1 (p.14) in the applicant's Scope 3 Report indicates peak sales, under the P10 production scenario (reserves with a less than 10% probability of recovery) would likely occur in 2026. Barrels of oil and standard cubic feet of gas are converted to tonnes using the conversion factors set out under Table 2 of the Scope 3 Report.

- Produced oil sales – 2026 – c.350,000 barrels or c.46,320 tonnes.
- Produced gas sales – 2026 – c.800 million standard cubic feet or c. 22.65 million cubic metres or c.18,600 tonnes of oil equivalent.

14. The combined sales figures for peak production oil and gas under the P10 scenario as shown in Figure 1 of the Scope 3 Report would be 64,320 tonnes of oil or oil equivalent. The indicative EIA threshold of 100,000 tonnes per year production of oil and gas is not met. Projected sales of produced oil and gas under the P10 scenario for all subsequent years is lower and declines over the 15-year project period. By 2034 oil production is projected at below 50,000 barrels (c.6,620 tonnes) per year. By 2035 gas production would be at less than 200 million standard cubic feet (c.4,650 tonnes of oil equivalent) per year.

The DESNZ guidance

15. The DESNZ guidance focusses on assessment of distant downstream (Scope 3 (Category 11)) GHG emissions for projects where EIA is required. The guidance (p.14) includes advice for projects subject to EIA screening. The recommended EIA screening approach includes consideration of the advice on detailed assessment of distant downstream emissions. The guidance recognises the standard of information required for EIA screening is typically less exacting than where EIA is required.

16. The DESNZ guidance sets out the matters to consider when evaluating the likely significance of distant downstream emissions from oil and gas development. The climate is classed as a high sensitivity receptor, consistent with the approach taken in relevant ISEP guidance, reflecting current concentrations of greenhouse gasses in the atmosphere. The guidance requires assessments to address the likely magnitude of distant downstream emissions. That magnitude should be contextualised with reference to global emissions reduction pathways and national targets, as appropriate. Use of global emissions reduction pathways, which capture planned projects and emitting activities, enables consideration of cumulative effects.

ISEP Guidance on Assessing Significance of GHG Emissions

17. Section III of the Institute of Sustainability and Environmental Professionals (ISEP formerly the Institute of Environmental Management and Assessment or IEMA) guidance on the assessment of GHG emissions (2nd edition, February 2022) addresses the matter of EIA screening. The guidance notes the high sensitivity of the global climate to additional GHG emissions and states such emissions are a relevant consideration at EIA screening but will be the decisive factor in limited cases. The guidance recommends that non-EIA projects be supported by proportionate assessment of likely GHG emissions.

18. Significance is addressed in Section VI of the guidance. All new GHG emissions have negative impacts, and significance judgements must consider the project's net impact over its lifetime. National GHG emission targets are noted as including staged sets of reductions between now and 2050. The guidance notes there will be differences between sectors, as net zero at the UK level will encompass activities with residual emissions of more or less than zero.

19. The guidance advises projects following a 'business as usual' or 'do minimum' approach that is not compatible with the UK's net zero trajectory will likely have major or moderate significant adverse effects. Projects compatible with the 1.5°C trajectory and complying with current policy and 'good practice' reduction measures will likely have minor adverse effects that are not significant. Projects with residual emissions that are nevertheless compatible with the net zero transition can be classed as having minor adverse effects.

Contextualisation of the projected emissions

20. The DESNZ and ISEP guidance both note the cumulative nature of GHG emissions and associated effects on the climate. The DESNZ guidance (p.12) recommends use of global emissions reductions pathways to contextualise project emissions magnitude. Such pathways incorporate planned and future projects and are noted as being inherently cumulative. The ISEP guidance (p.21) notes the challenges associated with cumulative effects assessment where the receptor's geographical scope is global. Identification and consideration of specific cumulative projects in the assessment is not recommended. The ISEP guidance (section 6.4, pp.27-29) recommends national or sectoral Carbon Budgets as an appropriate starting point for project emissions contextualisation. The ISEP guidance notes that practice is developing rapidly in this area, with approaches and evidence evolving and industry standards absent across many sectors.

Global Emissions Reduction Pathways Context

21. The GHG assessment considers two scenarios (A and B) for production at the extended wellsite. Both scenarios include GHG emissions associated with combustion or use of crude oil from the permitted Wressle-1 well. The assessment addresses cumulative effects of the permitted and proposed wells.

22. The worst case is Scenario B, which assumes combustion of all oil and gas produced from the three wells. Total project emissions for Scenario B are predicted at 1,007,731 tCO_2e, of which 917,999 tCO_2e (91.1%) would be from combustion of produced oil and gas. Those projections include 129,885 tCO_2e from combustion of crude oil from Wressle-1. The additional emissions from combustion of oil from Wressle-2 and Wressle-3 and natural gas from all three wells would be 788,114 tCO_2e.

23. In line with the DESNZ guidance the assessment considers project emissions against global emissions reduction pathways and national carbon budgets. The report considers several global emissions and energy projections discussed in the Resources for the Future published Global Energy Outlook 2025 and online data tool. The assessment focusses on two global emissions reduction pathways – 2024 BNEF (NZS) and 2021 BNF (Green) – compatible with the goal of achieving net zero carbon emissions by 2050.

24. Projected global carbon emissions from all energy sources are available for each project year under the 2024 BNEF (NZS) scenario. Projected global carbon emissions from oil and gas only are available for each project year under the 2021 BNEF (Green) scenario. The GHG assessment compares the project's Scenario B Scope 3 (Category 11) and total project emissions for the year of greatest emissions (2026) with the two global emissions reduction scenarios.

- In 2026 the project's Scope 3 (Category 11) emissions would be 0.201 million tonnes of carbon dioxide equivalent (Mt CO_2e), equivalent to:
  - 0.00063% of the 2024 BNEF (NZS) scenario emissions (32,009 Mt CO_2e).
  - 0.0011% of the 2021 BNEF (Green) scenario emissions (18,341 Mt CO_2e).
- In 2026 total project emissions would be 0.215 million tonnes of carbon dioxide equivalent (Mt $CO_2(e)$), accounting for:
  - 0.00067% of the 2024 BNEF (NZS) scenario emissions (32,009 Mt CO_2e).
  - 0.00117% of the 2021 BNEF (Green) scenario emissions (18,341 Mt CO_2e).

25. The assessment concludes the project's Scope 3 (Category 11) and total emissions would be "very small" when considered against the selected global emissions reductions pathways. The assessment does not comment on the project's likely implications for attainment of net zero by 2050 under either pathway considered.

National Carbon Budget Context

26. The assessment considers the predicted total project emissions with reference to relevant UK Carbon Budgets. For the Seventh Carbon Budget period (2038 to 2042) the February 2025 recommendations to Government of the Committee on Climate Change (CCC) are adopted. Government is required to set the Seventh Carbon Budget by 30 June 2026 at the latest.

27. The project would operate during the Fourth (2023-2027), Fifth (2028-2032), Sixth (2033-2037), and Seventh (2038-2042) UK Carbon Budgets. Table 8 (p.30) of the Scope 1, 2 and 3 report indicates total project emissions would be as follows during the relevant UK Carbon Budget periods. The report does not comment on the relative magnitude of the project emissions when considered in a UK Carbon Budget context.

- Fourth Carbon Budget (2023-2027) set at 1,950 Mt CO_2e – total project emissions of 0.382 Mt CO_2e or 0.0196%.
- Fifth Carbon Budget (2028-2032) set at 1,725 Mt CO_2e – total project emissions of 0.416 Mt CO_2e or 0.0241%.
- Sixth Carbon Budget (2033-2037) set at 965 Mt CO_2e – total project emissions of 0.172 Mt CO_2e or 0.0178%.
- Seventh Carbon Budget (2038-2042) likely to be set at 535 Mt CO_2e (based on the Climate Change Committee's advice to Government) – total project emissions of 0.037 Mt CO_2e or 0.0069%.

Local Carbon Budget Context

28. The project's Scope 1, 2 and 3 (non-Category 11) emissions are considered against the attributed Carbon Budgets for the North Lincolnshire Council area. Table 9 (p.31) of the Scope 1, 2 and 3 report indicates project emissions excepting Scope 3 (Category 11) would be as follows during relevant Carbon Budget periods. The report does not comment on the relative magnitude of those project emissions when considered in the local Carbon Budget context.

- Fourth Carbon Budget (2023-2027) given as 14.3 Mt CO_2e –project emissions (excluding Scope 3 (Category 11)) of 0.035 Mt CO_2e or 0.25%.
- Fifth Carbon Budget (2028-2032) given as 6.9 Mt CO_2e –project emissions (excluding Scope 3 (Category 11)) of 0.031 Mt CO_2e or 0.44%.

- Sixth Carbon Budget (2033-2037) given as 3.4 Mt CO_2e – project emissions (excluding Scope 3 (Category 11)) of 0.019 Mt CO_2e or 0.55%.
- Seventh Carbon Budget (2038-2042) given as 1.6 Mt CO_2e (based on the CCC advice to Government) – project emissions (excluding Scope 3 (Category 11)) of 0.0005 Mt CO_2e or 0.33%.

Applicant's view on likely significance following contextualisation

29. The likely significance of the project's worst-case scenario emissions is not explicitly addressed in the submitted assessment reports or the updated planning statement. The assessment reports comment on the global climate's high sensitivity to additional carbon emissions. The reports comment on the relative magnitude of the project emissions in the context of global emissions reduction pathways. The reports provide contextualisation of the predicted total project emissions against global emissions reduction pathways and the relevant UK Carbon Budgets.

30. The reports do not comment explicitly on the project's compatibility with the goals of limiting global temperature increase to less than 2°C with an aim of 1.5°C and achieving net zero by 2050. The applicant's previously expressed view on the non-significance of the project's direct and indirect GHG emissions as presented in the EIA Screening Opinion request letter of 25 February 2025 is noted.

Additional perspectives on project magnitude

31. The following additional perspectives on project magnitude may assist your evaluation of significance.

Project contribution to UK oil and gas production

32. The project would produce c.178,827 tonnes of oil between 2025 and 2039, comprised of c.41,233 tonnes of oil from the existing Wressle-1 well (2025-2034) and c.137,594 tonnes of oil from the proposed Wressle-2 and Wressle-3 wells (2026-2039). Peak crude oil production under the high production scenario (P10) is projected for 2026 at c.46,320 tonnes of oil.

33. The combined natural gas production from the Wressle-1, 2 and 3 wells would be 122,221 tonnes (2026-2039). Peak natural gas production under the high production scenario (P10) is projected for 2026 at c.18,600 tonnes of oil equivalent.

34. The 2025 edition of the Digest of UK Energy Statistics (source) provides data on UK production, exports and imports of energy and energy minerals. In 2024 UK wells produced 30.658 million tonnes of crude oil, of which 1.114 million tonnes (3.6%) was from onshore wells (source DUKES 2025, Table 3.1.1). In 2024 UK wells produced 30,830 million cubic metres of natural gas (26.5138 million tonnes of oil equivalent), of which 188 Mm^3 (0.16168 mtoe) (0.6%) was from onshore wells (source: DUKES 2025, Table F.2).

- Projected 2026 crude oil production from the Wressle wells – 46,320 tonnes - would be equivalent to 4% of UK 2024 onshore production and 0.15% of total UK 2024 production.
- Projected 2026 natural gas production from the Wressle wells – c.18,600 tonnes - would be equivalent to 11.5% of UK 2024 onshore production and 0.07% of total UK 2024 production.
- Project lifetime crude oil production from the Wressle wells – 178,827 tonnes - would be equivalent to 0.6% of total UK 2024 production.
- Project lifetime natural gas production from the Wressle wells – 122,221 tonnes - would be equivalent to 75.6% of UK 2024 onshore production and 0.5% of total UK 2024 production.

35. Should future UK oil and gas production remain dominated by offshore fields the Wressle wellsite's contribution will be small in magnitude.

Project comparison to local area attributed GHG emissions

36. To assist understanding of the scale of the project's GHG emissions, comparison can be made against the emissions attributable to the North Lincolnshire Council (NLC) area and the wider Yorkshire and the Humber region. Emissions data for the period 2005-2023 was sourced from UK local authority and regional greenhouse gas emissions statistics - GOV.UK.

37. In 2023, total emissions attributed to the NLC area were 5,757,100 tCO_2e.

- 4,368,000 tCO_2e (80.6%) was from the industrial sector.
- 435,900 tCO_2e (7.6%) was from transport.
- 203,000 tCO_2e (3.5%) was from domestic energy use for.

38. In 2023, total emissions attributed to the Yorkshire and the Humber region were 33,297,800 tCO_2e.

- 9,705,400 tCO_2e (29%) was from transport.
- 8,978,100 tCO_2e (27%) was from industry.
- 6,438,400 tCO_2e (19.3%) was from domestic energy use.

39. For context, 2023 emissions for England were 275,589,300 tCO_2e and for the UK were 356,094,100 tCO_2e.

40. The project's peak year of production is 2026, for which the downstream emissions would be 201,000 tCO_2e. That would be equivalent to 3.5% of the NLC area's 2023 emissions and 0.6% of the Yorkshire and the Humber region's 2023 emissions.

Mitigation

41. Mitigation for or prevention of distant downstream emissions will mainly be achieved through wider decarbonisation initiatives. For example, a significant proportion of crude oil is used to manufacture vehicle fuels for road, rail, aviation and shipping. The phasing out of sales of new petrol and diesel cars from 2030 and requirement from 2035 that all new cars and vans be 100% zero emission will reduce demand for crude oil. Similar initiatives are being progressed by the UK and other governments in partnership with the international aviation and shipping sectors.

42. Offsetting the project emissions – what would be required for example in terms of installed renewable energy capacity? The proposed Dogger Bank South offshore windfarm (ref. EN010125), to be situated off the East Yorkshire and Humber coast, would have an installed generation capacity of 200MW. The proposal comprises two windfarm arrays (DBS East and DBS West) with a predicted combined capacity to avoid or offset 183,461,542 tCO_2e emissions over their 30-year operational life. The whole life project emissions of the extended Wressle wellsite would be equivalent to 0.55% of the emissions that would be offset by the Dogger Bank South windfarms (if permitted).

Need for EIA

43. The project does not qualify as Schedule 1 development. Under the P10 scenario peak annual oil and gas production would be achieved in 2026.

- For oil, the Schedule 1 threshold is 500 tonnes per day, the project would produce c.120 to c.170 tonnes per day (c.46,320 tpa).
- For gas, the Schedule 1 threshold is 500,000 cubic metres per day, the project would produce c.60,000 to c.80,000 cubic metres per day (c.22.65 million cubic metres per year).

44. The project qualifies as Schedule 2 development, with paragraph 2(e) (oil and gas production installations) most relevant for oil and gas extraction. The nPPG (EIA) gives an indicative EIA threshold of more than 100,000 tonnes of oil and/or gas produced per year. Under the P10 scenario peak annual oil and gas production would be achieved in 2026. The combined figure is c.64,320 tonnes, of which c.46,320 tonnes would be oil and c.18,600 tonnes of oil equivalent would be gas. That figure does not exceed the indicative EIA threshold.

45. The applicant has quantified and contextualised the total project GHG emissions, including distant downstream emissions arising from the use of produced oil and gas. The assessment considers the cumulative effects arising from the permitted Wressle-1 well and the proposed additional wells. The submitted assessment has applied the approaches set out in relevant guidance published by ISEP (formerly IEMA) and DESNZ.

46. The assessment presents a worst-case scenario based on production forecasts with a 10% probability of attainment. It is uncertain production would be at the levels covered by the assessment and is likely to be lower. Should production be lower than forecast the associated GHG emissions, including distant downstream emissions, would also be lower.

47. The project involves additional oil and gas production, the use of which would cause additional GHG emissions. The project's climate effects would be adverse. The assessment indicates those effects, in combination with other committed and projected development, would not prevent achievement of Net Zero by 2050. The submitted GHG assessment relies on production forecasts with a 10% or less probability of realisation. The relevant indicative EIA threshold for Schedule 2 oil and gas projects is not met. Given the uncertainty of the production forecasts the project's climate effects may be smaller than presented in the submitted GHG assessment.

48. The scope for mitigation of effects can be considered when determining whether EIA is required. Considering the project's lifetime emissions against the savings expected from a nearby proposed major renewable scheme suggests that offsetting would be feasible. Other initiatives, such as the proposed phasing out of petrol and diesel cars from 2030, will reduce demand for such products and the crude oil from which they are made.

49. Considering the facts summarised above, it is unlikely that EIA should be required in this case. However, you may as the relevant competent authority and based on your knowledge of the site and circumstances specific to the locality and the development proposal, wish to take a different view.

Closing comments

50. I hope the above discussion is helpful to your authority in deciding whether the GHG emissions associated with the proposed development are of a significance to require assessment through formal EIA.

51. Should you require clarification of any matter addressed in this note, please do not hesitate to contact me.

Yours sincerely

Jessica

Dr Jessica Salder MIEnvSc MISEP CEnv
Principal Environmental Assessment Officer
Surrey County Council

Conversion Factors

1 billion cubic metres of natural gas = 0.860 million tonnes of oil equivalent

1 million cubic metres of natural gas = 0.00086

1 GigaWatt hour of natural gas = 85.9845 tonnes of oil equivalent