Medworth Energy from Waste
Combined Heat and Power Facility

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Deadline 6
July 2023

# Applicant's comments on the Deadline 5 Submissions: Part 2 Other Interested Parties

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# Contents

# 1. Introduction

## 1.1 Background

1.1.1 Medworth CHP Limited (the Applicant) submitted an application for development consent to the Secretary of State on 7 July 2022 (the Application). The Application was accepted for examination on 2 August 2022. The Examination of the Application commenced on 21 February 2023.

1.1.2 This document, submitted for Deadline 6 (12 July 2023) of the Examination contains the Applicant's comments on Deadline 5 submissions, other than responses to the Examining Authority's written questions ExQ2 which are addressed separately in Volume 15.5. Deadline 5 submissions were made by the following organisations:

- Statutory Parties:
  - Anglian Water **[REP5-041]**; and
  - Cambridgeshire County Council and Fenland District Council **[REP5-043** and **REP5-044]**;
- Other Interested Parties:
  - United Kingdom Without Incineration Network (UKWIN) **[REP5-053]**; and
  - Kerys Jordan **[REP5-049]**.

1.1.3 This document (Part 2) contains the Applicant's response to Deadline 5 submissions from the Other Interested Parties in the following tables:

- Table 2.1 Comments on submissions from United Kingdom Without Incineration Network (UKWIN); and
- Table 3.1 Comments on submissions from Kerys Jordan.

1.1.4 The Applicant's response to Deadline 5 submissions from Statutory Parties is presented in a separate document (Part 1) in **Volume 15.6a** and the Applicant's comments on responses to ExQ2 are provided in **Volume 15.5**.

# 2. Comments on Deadline 5 submissions from UKWIN

**Table 2.1 Comments on Deadline 5 submissions from UKWIN [REP5-053]**

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| **FINDINGS OF UKWIN'S SENSITIVITY ANALYSIS** | | | |
| **UK01** | Paragraph 1 | UKWIN undertook sensitivity analysis based on a spreadsheet provided by the Applicant at Deadline 4 (D4), as referred to by the Applicant in their REP4-023 submission. | Noted. |
| **UK02** | Paragraph 2 | For this analysis UKWIN followed the approach and assumptions set out below, making use of the Applicant's GHG spreadsheets and considered the following sensitivities to the assumptions applied:<br><br>• Waste composition and level of biogenic carbon<br>• Electricity generation emissions factor<br>• Biogenic carbon sequestration credit<br>• Level of energy production<br>• Landfill gas recovery rate<br>• Proportion of methane in landfill gas | Noted. |
| **UK03** | Paragraph 3 | The results of this analysis reinforce UKWIN's case, set out in REP4-037 and in REP2-066, that the Medworth NSIP application is in a very similar position to Wheelebrator Kemsley North (WKN) where the Secretary of State agreed with the ExA that "the available evidence casts considerable | It is acknowledged that as a standalone entity the Proposed Development results in net carbon emissions when considering emissions from the EfW combustion processes. However, the GHG assessment in **Section 14.9 of ES Chapter 14: Climate Change (Volume 6.2) [APP-041]** indicates a net reduction in emissions in the |

| ID | Topic/Para | Response | Applicant Comment |
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| | | doubt on whether the 'net [climate] benefit' can be ascertained with any great certainty, given it is highly sensitive to the assumptions applied" and that as such "the matter should carry little weight in the assessment". | 'with Proposed Development' scenario compared to a 'without Proposed Development' scenario.<br><br>In response to **ISH 4, action point No.7 [EV-059]**, the Applicant has discussed with Cambridgeshire County Council (CCC) carrying out further sensitivity analysis. Appropriate scenarios for the further sensitivity analysis have been agreed. This analysis is submitted at Deadline 6 (**Applicant's Response to ISH4 Action Point 7, Volume 15.7**). The analysis includes commentary regarding the likelihood of the sensitivity scenarios to address some of the uncertainty associated with the variables considered. There are a number of factors considered (waste composition, Landfill Gas capture rate, grid decarbonisation, CHP and CCS) which cause variation in outputs, however six of the seven scenarios that are considered by the Applicant to be *Highly Likely* in terms of both technology and policy show that the EfW CHP Facility would be expected to deliver a reduction in GHG emissions compared to landfill over the lifetime of the Proposed Development. As such, the conclusions set out in the ES are not changed. |
| **UKWIN'S APPROACH TO GHG SENSITIVITY ANALYSIS** | | | |
| **General principle** | | | |
| **UK04** | Paragraph 4 | UKWIN's approach is to assess a range of sensitivities using the Applicant's core case – as set out in APP-088 Table 14C.2 ('Comparative sensitivity analysis of net annual emissions savings') – alongside a number of alternative | Noted. See response to UK03 regarding additional sensitivity analysis for submission at Deadline 6, considering additional alternative scenarios. |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | waste composition cases and electricity generation emissions factors, with results expressed in net tonnes of CO2e/year. | |
| **UK05** | Paragraph 5 | A deep red background is used in the results tables below to show negative results (i.e. where the plant would be worse than the landfill base case) in UKWIN's base sensitivity analysis. In some of the additional sensitivities further cases also yielded negative results, and these are displayed using a light red (pink) background. | Noted. |
| **Application of correction value to scope-in stages omitted by the Applicant** | | | |
| **UK06** | Paragraph 6 | When validating our replication of the Applicant's APP-088 Table 14C.2, using the spreadsheets supplied by the Applicant, it became clear that the Applicant's core figure of net benefit in APP-088 Table 14C.2 is inconsistent with the 40-year figure they provided in APP-041 Table 14.31 ('GHG emission estimates during the lifecycle of the Proposed Development case and without Proposed Development case'). | The sensitivity analysis for the ES (**Appendix 14C (Volume 6.4) [APP-088**]) concentrated on sensitivity with respect to process operational emissions as these were the most significant source of emissions for EfW and Landfill. Subsequent sensitivity analysis considering progressive decarbonisation of the UK grid included 40-year lifetime emissions has also been undertaken (**Technical Meeting Note (TNCC01) (provided at Appendix 9.2c (Part 9) [REP1-036]**).<br><br>The additional sensitivity analysis submitted at Deadline 6 (**Applicant's Response to ISH4 Action Point 7, Volume 15.7**) in response to **ISH 4, action point No.7 [EV-059**], includes 40-year lifetime emissions for each of the scenarios considered. |
| **UK07** | Paragraph 7 | Analysis of the Applicant's spreadsheets revealed that this discrepancy was due to the Applicant's | See response for UK06 |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | sensitivity analysis omitting some of the stages that are scoped into their main analysis. | |
| **UK08** | Paragraph 8 | When these omissions are added back in, the claimed benefits of the facility proposed for Medworth as set out in APP-088 Table 14C.2 are shown to be around 9,683 tonnes of CO2e per annum lower for every single result shown. This is explained in the technical appendices at the end of this analysis. | See response for UK06. The additional sensitivity analysis submitted at Deadline 6 (**Applicant's Response to ISH4 Action Point 7, Volume 15.7**) in response to **ISH 4, Action Point No.7 [EV-059**] makes it clear that there are number of factors that affect model outputs. However, the majority of scenarios considered show that the EfW CHP Facility would be expected to deliver a reduction in GHG emissions compared to landfill over the lifetime of the Proposed Development. |
| **UK09** | Paragraph 9 | UKWIN's sensitivity analysis corrects for these omissions by subtracting 9,683 tonnes of CO2e per annum from the results in the Applicant's spreadsheets to provide consistency with the results from the Applicant's main analysis. | See response for UK06 |
| **Electricity generation emission factors** | | | |
| **UK10** | Paragraph 10 | APP-088 Table 14C.2 provides four scenarios for electricity generation emissions factors, and an additional scenario is provided by the Applicant in their REP1-036 Table A.3 ('GHG emission estimates during the lifecycle of the Proposed Development case and without Proposed Development case, and comparison against the sensitivity analysis for forecast grid mix decarbonisation'). | Noted |

| ID | Topic/Para | Response | Applicant Comment |
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| **UK11** | Paragraph 11 | For the purpose of looking at future grid averages UKWIN has used the November 2022 version of the BEIS/DESNZ Treasury Green Book – Data Tables 1-19 rather than the older version from June 2021 historically used by the Applicant. | Noted. The additional sensitivity analysis submitted at Deadline 6 (**Applicant's Response to ISH4 Action Point 7, Volume 15.7** uses the 2023 version of the Treasury Green Book. |
| **UK12** | Paragraph 12 | The November 2022 version of Data Tables 1-19 uses lower figures, because the Government now assumes a greater degree of decarbonisation of the electricity grid. | Noted |
| **UK13** | Paragraph 13 | UKWIN's sensitivity analysis considers the Applicant's Current Gas (380g/kWh) and **Current UK Grid Average (182g/kWh)** cases to allow for a better understanding of the sensitivity of the Applicant's analysis. However, we maintain our previous concerns about the relevance of these cases to the assessment given the decarbonisation of the electricity supply | Existing guidance from DEFRA[1] considers that electricity generated by gas-fired power stations (CCGT) is a reasonable substitute for energy generated by EfW plants. However, in response to comments from stakeholders at PEIR the ES Core Case considers that energy displaced by the EfW CHP Facility and landfill would displace UK grid average electricity generation, which given the DEFRA guidance is considered to be a conservative approach.<br><br>Consideration of UK grid decarbonisation was included the sensitivity analysis for the ES (**Appendix 14C (Volume 6.4) [APP-088**]) and in the subsequent sensitivity analysis provided (**Technical Meeting Note (TNCC01) (provided at Appendix 9.2c (Part 9) [REP1-036]**).<br><br>The additional sensitivity analysis submitted at Deadline 6 **(Applicant's Response to ISH4 Action Point 7, Volume 15.7)** in response to **ISH 4, Action Point No.7** |

[1] DEFRA (2014). Energy from waste. A guide to the debate.

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | | **[EV-059**], includes consideration of the ES Core Case with respect to decarbonisation of the UK grid and with respect to electricity generated by CCGT. |
| **UK14** | Paragraph 14 | UKWIN also assesses the development against the:<br><br>• **2027 UK Grid Average (66.8g/kWh).** This indicates the currently anticipated grid average at the time of the earliest year when the plant might start operation. As noted on REP3-050 paragraph 70, the facility proposed for Medworth could not reasonably be expected to become operational until 2027 at the earliest.<br>• **2027-2066 UK Grid Average (13.442g/kWh).** While the Applicant's REP1-036 Table A.3 assesses the proposal against an average for 2026-2065, UKWIN uses the average over the period 2027-2066 based on a more realistic first year of operation.<br>• **2050 UK Grid Average (2.283g/kWh).** In line with Applicant's use of 2050 (including applying electricity generation emissions factor value to CHP heat offset) but using the lower figure from the November 2022 version of BEIS/DESZN tables. The 2050 grid average remains constant for 2050-2066. | The additional sensitivity analysis submitted at Deadline 6 (Applicant's Response to ISH4 Action Point 7, Volume 15.7) in response to **ISH 4, action point No.7 [EV-059**], also includes consideration of the ES Core Case with respect to decarbonisation of the UK grid on an annual basis, albeit the current UK grid average is considered to be the energy mix that would be replaced by the EfW CHP Facility. |
| **Waste composition cases** | | | |
| **UK15** | Paragraph 15 | In addition to considering the Applicant's core 'current waste' case, which is based on around | In response to **ISH 4, action point No.7 [EV-059**], the Applicant has discussed with Cambridgeshire County |

| ID | Topic/Para | Response | Applicant Comment |
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| | | 57% biogenic content, UKWIN has also modelled two other scenarios to show the potential impact of feedstock compositions with lower biogenic content:<br><br>• **50% Biogenic content**. This scenario considers significant reductions in food and garden waste and lower levels of reductions in paper and card. This results in around half of carbon content of the feedstock being biogenic, which is the standard 'rule of thumb' assumption for mixed residual waste [REP1-096, UKWIN Good Practice Guidance, internal page 80].<br><br>• **40% Biogenic content**. This assumes biogenic content of around 40.2% to show the mirror impact of the Applicant's assumed 17 percentage point increase in biogenic from their 'Reduced Food and Plastic' scenario in line with UKWIN's D4 Post-hearing Submission [REP4-042]. This reduced biogenic case has a Total NCV of around 10.9 MJ/kg and so the sensitivity analysis uses the 531,200 tonnes per annum tonnage figure set out by the Applicant in their REP3-040 on electronic pages 93-94. | Council (CCC) carrying out further sensitivity analysis. Appropriate scenarios for the further sensitivity analysis have been agreed, which include additional scenarios for waste composition provided by CCC. This analysis is submitted at **Deadline 6 (Applicant's Response to ISH4 Action Point 7, Volume 15.7)**.<br><br>It is noted that in the two scenarios provided by UKWIN that model residual waste with lower biogenic content (at 50% and 40% biogenic content), no allowance has been made for a reduction in plastics in the residual waste (which would also reduce the non-biogenic carbon content of the residual waste). Excluding a reduction in plastic material in the scenarios does not seem appropriate given that Government policies are seeking to reduce the level of both plastic and organic material in waste (along with other recyclables); for example, the National Waste Strategy for England[2] highlights measures proposed to achieve reductions of both food and plastics in residual waste (such as ensuring that every householder and appropriate businesses have a weekly separate food waste collection, and eliminating avoidable plastic waste over the lifetime of the 25 Year Environment Plan[3]). |

[2] HM Government (2018). England's National Waste Strategy. OUR WASTE, OUR RESOURCES: A STRATEGY FOR ENGLAND.
[3] HM Government (2018). A Green Future: Our 25 Year Plan to Improve the Environment.

| ID | Topic/Para | Response | Applicant Comment |
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| **BASE ANALYSIS OF COMPOSITION/GRID SENSITIVITY** | | | |
| **UK16** | Paragraph 16 | As per paragraphs 111-112 of UKWIN's Written Representation [REP2- 066], the Examining Authority for the WKN decision stated (and the SoS accepted) that "key uncertainties and limitations" that justified giving little weight to claimed climate benefits of the EfW scheme included "the carbon intensity of marginal electricity generation and the proportions of waste types to be managed…" | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, action point No.7 [EV-059].** |
| **UK17** | Paragraph 17 | This highlights the importance of considering a range of potential sensitivities with respect to electricity generation emissions factors and to waste composition. | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, action point No.7 [EV-059].** |
| **UK18** | Paragraph 18 | Below is a summary of the results of assessing the sensitivity of the proposed Medworth development to changes in waste composition and electricity generation grid factors following the methodology set out above, with no other changes to the assumptions used by the Applicant.<br><br>**Base Sensitivity Analysis Showing Composition/Grid Sensitivity** | Noted. |

| ID | Topic/Para | Response | Applicant Comment |
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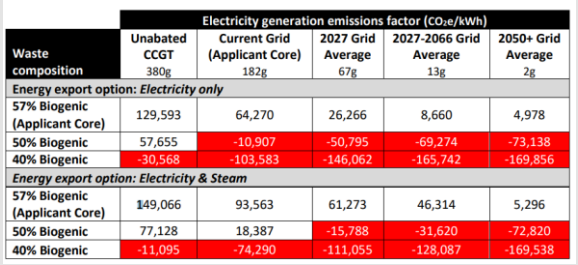
| | |  | |

| Waste composition | Electricity generation emissions factor ($CO_2e$/kWh) | | | | |
|---|---|---|---|---|---|
| | Unabated CCGT 380g | Current Grid (Applicant Core) 182g | 2027 Grid Average 67g | 2027-2066 Grid Average 13g | 2050+ Grid Average 2g |
| Energy export option: *Electricity only* | | | | | |
| 57% Biogenic (Applicant Core) | 129,593 | 64,270 | 26,266 | 8,660 | 4,978 |
| 50% Biogenic | 57,655 | -10,907 | -50,795 | -69,274 | -73,138 |
| 40% Biogenic | -30,568 | -103,583 | -146,062 | -165,742 | -169,856 |
| *Energy export option: Electricity & Steam* | | | | | |
| 57% Biogenic (Applicant Core) | 149,066 | 93,563 | 61,273 | 46,314 | 5,296 |
| 50% Biogenic | 77,128 | 18,387 | -15,788 | -31,620 | -72,820 |
| 40% Biogenic | -11,095 | -74,290 | -111,055 | -128,087 | -169,538 |

| | | | |
|---|---|---|---|
| **UK19** | Paragraph 19 | This shows that when assessing the proposal using the Applicant's core assumptions, the results are highly sensitive to the electricity grid emissions factor and to the composition of the waste to be used as the feedstock. | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, Action Point No.7 [EV-059].** |
| **UK20** | Paragraph 20 | It also shows that a reduction of 7 percentage points in the biogenic proportion of the carbon could be more than sufficient to result in the Medworth proposal having an adverse GHG impact compared to landfill in the Applicant's core electricity generation emissions factor case in electricity only mode. | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, Action Point No.7 [EV-059].** |
| **UK21** | Paragraph 21 | When lower levels of grid electricity are assumed and/or when lower levels of biogenic waste are assumed, then the level at which the Medworth proposal would be worse than landfill increases. | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, Action Point No.7 [EV-059].** |

| ID | Topic/Para | Response | Applicant Comment |
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| **UK22** | Paragraph 22 | In the 40% biogenic carbon case the proposal would be worse than landfill across all electricity generation scenarios, including when modelled in the Applicant's CHP ('Electricity and Steam energy export') case. | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, Action Point No.7 [EV-059]**, and response for UK15 regarding the biogenic content of residual waste. |
| **UK23** | Paragraph 23 | At 50% biogenic carbon content, the Medworth proposal would be worse than landfill when applying the 2027 Grid Average rather than the Applicant's 'Current Grid' figure. | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, Action Point No.7 [EV-059]**, and response for UK15 regarding the biogenic content of residual waste. |
| **ANALYSIS OF BIOGENIC CARBON SEQUESTRATION** | | | |
| **UK24** | Paragraph 24 | In UKWIN's Good Practice Guidance for Assessing the GHG Impacts of Waste Incineration (July 2021) – which was included as part of REP1-096 – UKWIN set out the importance of considering how, when biogenic material is sequestered in landfill, it should be credited for sequestering carbon that would be released as CO2 if the same material were to be landfilled. | The approach used by the Applicant in **ES Chapter 14 Climate Change (Volume 6.2) [APP-041]** is consistent with IPCC guidelines[4] and the latest UK Greenhouse Gas Inventory Waste Sector[5] reporting of emissions for solid waste disposal sites (SWDS), where the proportion of biogenic carbon that does not decompose in landfill is excluded from emissions reporting. |
| **UK25** | Paragraph 25 | This set out evidence set out the theoretical basis for why it is correct and appropriate to account for biogenic carbon sequestration, including statements from Defra's Carbon Based Modelling Approach report. | See response for UK24 |

[4] IPCC (2006). IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories. Chapter 5 Waste.
[5] Department for Energy Security and Net Zero (DESNZ, 2023). UK Greenhouse Gas Inventory, 1990 to 2021. Annual Report for Submission under the Framework Convention on Climate Change.

| ID | Topic/Para | Response | Applicant Comment |
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| **UK26** | Paragraph 26 | The Guidance also set out numerous real world examples of GHG modellers who considered this impact, either in their core analysis or their sensitivity analysis, including for planning applications to build new incinerators. | See response for UK24 |
| **UK27** | Paragraph 27 | Information on the importance of this consideration and the significance of the Medworth Applicant's failure to take it into account is set out by UKWIN in REP2-066 paragraphs 79-106, REP3 paragraphs 61-66, and REP4-037 paragraphs 85-90. | See response for UK24 |
| **UK28** | Paragraph 28 | Equanimator provides an estimate for the impact of accounting for this effect in REP2-064 Appendix 5. To assess this impact against the cases outlined above UKWIN replicates the exercise by modifying the Applicant's spreadsheet to allow for a credit to be made for biogenic carbon sequestration in landfill. | See response for UK24 |
| **UK29** | Paragraph 29 | The results of this analysis are as follows:<br>***FULLY ACCOUNTING FOR BIOGENIC CARBON SEQUESTRATION IN LANDFILL*** | Noted |

| | Electricity generation emissions factor ($CO_2e$/kWh) | | | | |
|---|---|---|---|---|---|
| **Waste composition** | **Unabated CCGT** 380g | **Current Grid (Applicant Core)** 182g | **2027 Grid Average** 67g | **2027-2066 Grid Average** 13g | **2050+ Grid Average** 2g |
| ***Energy export option: Electricity only*** | | | | | |
| **57% Biogenic (Applicant Core)** | -42,255 | -107,578 | -145,582 | -163,188 | -166,869 |
| **50% Biogenic** | -88,654 | -157,217 | -197,105 | -215,584 | -219,448 |
| **40% Biogenic** | -57,256 | -130,272 | -172,751 | -192,430 | -196,545 |
| ***Energy export option: Electricity & Steam*** | | | | | |
| **57% Biogenic (Applicant Core)** | -22,782 | -78,284 | -110,575 | -125,534 | -166,551 |
| **50% Biogenic** | -69,182 | -127,923 | -162,098 | -177,930 | -219,130 |
| **40% Biogenic** | -37,784 | -100,978 | -137,744 | -154,776 | -196,227 |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| **UK30** | Paragraph 30 | This shows that, based on the Applicant's assumptions for the proposed Medworth facility, if credit is given for biogenic carbon sequestration then the proposed Medworth facility would perform worse than landfill even for the Applicant's unabated CCGT case and their core waste composition, even with CHP. | See response for UK24 |
| **UK31** | Paragraph 31 | With respect to 'tipping points', even if only 87% of the credit for biogenic sequestration were accounted this would still be sufficient to produce an adverse result across all the cases modelled by UKWIN, as can be seen from the table overleaf: | See response for UK24 |
| **ANALYSIS OF IMPROVED LANDFILL PERFORMANCE** | | | |
| **UK32** | Paragraph 32 | One of the "key uncertainties and limitations" highlighted by the ExA on paragraph 4.14.64 of the WKN decision was the "the estimate of GHG emissions from landfill". | Noted |

***ACCOUNTING FOR 87% OF THE BIOGENIC CARBON SEQUESTRATION IN LANDFILL***

| Waste composition | Electricity generation emissions factor ($CO_2e$/kWh) | | | | |
|---|---|---|---|---|---|
| | Unabated CCGT 380g | Current Grid (Applicant Core) 182g | 2027 Grid Average 67g | 2027-2066 Grid Average 13g | 2050+ Grid Average 2g |
| ***Energy export option: Electricity only*** | | | | | |
| 57% Biogenic (Applicant Core) | -19,914 | -85,238 | -123,242 | -140,848 | -144,529 |
| 50% Biogenic | -69,634 | -138,196 | -178,085 | -196,564 | -200,428 |
| 40% Biogenic | -53,787 | -126,802 | -169,281 | -188,960 | -193,075 |
| ***Energy export option: Electricity & Steam*** | | | | | |
| 57% Biogenic (Applicant Core) | -442 | -55,944 | -88,234 | -103,193 | -144,211 |
| 50% Biogenic | -50,161 | -108,903 | -143,078 | -158,910 | -200,110 |
| 40% Biogenic | -34,314 | -97,509 | -134,274 | -151,306 | -192,757 |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| **UK33** | Paragraph 33 | For Medworth, the Applicant adopts a 68% landfill gas recovery rate based on a 2014 assessment of historic landfill sites (which uses data from 2011, as per the Applicant's APP-088 Climate Appendices, internal page 14B.2). | Noted |
| **UK34** | Paragraph 34 | However, if waste were to be landfilled it would likely go to a future modern landfill which maximised the level of landfill gas recovery. | In response to **ISH 4, action point No.7 [EV-059]**, the Applicant has discussed with Cambridgeshire County Council (CCC) carrying out further sensitivity analysis. Appropriate scenarios for the further sensitivity analysis have been agreed, which includes consideration of alternative landfill gas (LFG) capture rates. This analysis is submitted at Deadline 6 (Applicant's Response to ISH4 Action Point 7, Volume 15.7). It is noted that in the Climate Change Committee's 6th Carbon Budget report for the waste sector[6], that although LFG capture rates increased significantly in the period up to the early 2010s, LFG capture rates have peaked and are now declining. The 6th Carbon Budget for the waste sector includes a baseline LFG capture rate of 60%; an aspirational LFG capture rate by 2050 of 80%; and includes the 68% LFG capture rate used in the ES Core Case (in the 'Widespread Engagement' scenario for 2030 and 2050). In a supplementary progress report[7] the Climate Change Committee identifies that the Government's pathway to Net Zero assumes no improvement to methane capture rates. |
| **UK35** | Paragraph 35 | A figure of 75% landfill gas recovery rate has been used as the default both for WRATE and MELMod | See response for UK34 |

[6] Climate Change Committee (2020). *The Sixth Carbon Budget, Waste*
[7] Climate Change Committee (2022). *Progress in reducing emissions, 2022 Report to Parliament*

| ID | Topic/Para | Response | Applicant Comment |
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| | | and in Defra's Carbon Based Modelling Approach and this 75% figure is often used for analysis, either as the central figure or as a sensitivity. | |
| **UK36** | Paragraph 36 | UKWIN's sensitivity analysis found that an increase in landfill gas recovery rates from 68% to 75% (used to provide sensitivity analysis of other EfW proposals) would be sufficient to result in the Medworth plant having negative (i.e. adverse) climate impacts even for the Applicant's core waste composition and electricity generation emissions factor electricity only case. | See response for UK34 |
| **UK37** | Paragraph 37 | Furthermore, as per the Applicant's APP-088 Climate Appendices, internal page 14B.2, the Applicant assumes that "The ratio of methane to carbon dioxide in UK landfill gas is calculated to be 57:43% rather than the generally assumed 50:50%". | The 50:50% ratio of methane to carbon dioxide is understood to be based on IPCC guidelines on modelling methane generation for landfill[4] at a more general global level. The 57:43% ratio of methane to carbon dioxide identified in a DEFRA study[8] provides a sense check on the IPCC factor with respect to conditions observed for the UK operational landfill portfolio. The 57:43% ratio is |

***SENSITIVITY OF INCREASING LANDFILL GAS RECOVERY RATE TO 75%***

| Waste composition | Electricity generation emissions factor ($CO_2e$/kWh) | | | | |
|---|---|---|---|---|---|
| | Unabated CCGT 380g | Current Grid (Applicant Core) 182g | 2027 Grid Average 67g | 2027-2066 Grid Average 13g | 2050+ Grid Average 2g |
| **Energy export option: *Electricity only*** | | | | | |
| 57% Biogenic (Applicant Core) | 62,454 | -625 | -37,324 | -54,325 | -57,880 |
| 50% Biogenic | 494 | -66,158 | -104,935 | -122,899 | -126,655 |
| 40% Biogenic | -74,013 | -145,577 | -187,211 | -206,499 | -210,532 |
| ***Energy export option: Electricity & Steam*** | | | | | |
| 57% Biogenic (Applicant Core) | 81,927 | 28,668 | -2,317 | -16,671 | -57,562 |
| 50% Biogenic | 19,967 | -36,864 | -69,928 | -85,245 | -126,337 |
| 40% Biogenic | -54,540 | -116,283 | -152,204 | -168,845 | -210,214 |

[8] DEFRA (2014). DEFRA Review of Landfill Methane Emissions Modelling

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | | therefore considered to be appropriate to use in the assessment of GHG emissions for landfill in a UK context. |
| **UK38** | Paragraph 38 | When the 'generally assumed' 50%:50% ratio is applied, even with the 68% landfill gas recovery rate, the results are significantly worse than the Applicant's baseline.<br><br>**Impact of assuming 50%:50% ratio of methane to carbon in landfill with the Applicant's assumed 68% landfill gas recovery rate**<br><br>Electricity generation emissions factor ($CO_2e$/kWh)<br>Waste composition \| Unabated CCGT 380g \| Current Grid (Applicant Core) 182g \| 2027 Grid Average 67g \| 2027-2066 Grid Average 13g \| 2050+ Grid Average 2g<br>*Energy export option: Electricity only*<br>57% Biogenic (Applicant Core) \| 99,456 \| 31,456 \| -8,105 \| -26,433 \| -30,265<br>50% Biogenic \| 31,997 \| -38,844 \| -80,059 \| -99,152 \| -103,144<br>40% Biogenic \| -50,069 \| -124,817 \| -168,304 \| -188,450 \| -192,662<br>*Energy export option: Electricity & Steam*<br>57% Biogenic (Applicant Core) \| 118,929 \| 60,749 \| 26,902 \| 11,221 \| -29,947<br>50% Biogenic \| 51,470 \| -9,551 \| -45,052 \| -61,498 \| -102,826<br>40% Biogenic \| -30,597 \| -95,523 \| -133,297 \| -150,796 \| -192,344 | See responses for UK34 and UK37 |
| **UK39** | Paragraph 39 | If one combines the two impacts, the resulting impact is even greater:<br><br>**Impact of assuming 75% landfill gas recovery rate and 50%:50% ratio of methane to carbon in landfill**<br><br>Electricity generation emissions factor ($CO_2e$/kWh)<br>Waste composition \| Unabated CCGT 380g \| Current Grid (Applicant Core) 182g \| 2027 Grid Average 67g \| 2027-2066 Grid Average 13g \| 2050+ Grid Average 2g<br>*Energy export option: Electricity only*<br>57% Biogenic (Applicant Core) \| 40,562 \| -25,469 \| -63,886 \| -81,683 \| -85,404<br>50% Biogenic \| -18,145 \| -87,310 \| -127,550 \| -146,191 \| -150,089<br>40% Biogenic \| -88,179 \| -161,653 \| -204,399 \| -224,202 \| -228,342<br>*Energy export option: Electricity & Steam*<br>57% Biogenic (Applicant Core) \| 60,035 \| 3,824 \| -28,879 \| -44,029 \| -85,086<br>50% Biogenic \| 1,328 \| -58,017 \| -92,543 \| -108,537 \| -149,771<br>40% Biogenic \| -68,707 \| -132,360 \| -169,392 \| -186,548 \| -228,025 | See responses for UK34 and UK37 |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| **UK40** | Paragraph 40 | This indicates that the climate impact of alternatively sending the feedstock to landfill could be significantly overstated by the Applicant, in their 'Without Development' case, even before the potential for biostabilisation (e.g. in-vessel composting (IVC) pre-treatment) is considered, and that this can impact on the results of the analysis across a range of waste composition and electricity generation emissions factor cases. | See responses for UK34 and UK37. The Applicant considers that the Without Development case has been appropriately assessed based on the available information and guidance. |
| **ANALYSIS OF REDUCTION IN POWER GENERATION** | | | |
| **UK41** | Paragraph 41 | As noted by UKWIN in REP4-037 paragraph 42: "To assess the potential impacts of the sort of suboptimal electricity generation set out above, we believe it would be reasonable to assess electricity generation being on average 15% lower than the claimed headline MW generation figure, i.e. 51MW and not 60MW". | The Applicant's facility at Devonport achieves electricity outputs in fully condensing mode very close to 100% of the capacity stated at the planning stage. It also operates in combined heat and power mode with similar levels of actual performance. Therefore, based on its own operational experience the Applicant considers that 60MWe of electricity generation (with 55MWe output to the grid accounting for parasitic load) for the Medworth EfW CHP Facility is realistic for operation of a modern, efficient EfW facility. The design allows for variations in NCV and throughput volumes for residual waste, whilst maintaining constant steam production and a consistent gross power production close to 60 MWe throughout.<br><br>The additional sensitivity analysis submitted at Deadline 6 (Applicant's Response to ISH4 Action Point 7, Volume 15.7) in response to **ISH 4, action point No.7 [EV-059],** also includes consideration of variations in waste composition and operating parameters for the EfW CHP Facility. |

***SENSITIVITY TO LEVEL OF POWER GENERATION***

| Waste composition | Electricity generation emissions factor ($CO_2e$/kWh) Unabated CCGT 380g | Current Grid (Applicant Core) 182g | 2027 Grid Average 67g | 2027-2066 Grid Average 13g | 2050+ Grid Average 2g |
|---|---|---|---|---|---|
| ***Energy export option: Electricity only*** | | | | | |
| 57% Biogenic (Applicant Core) | 102,233 | 51,166 | 21,456 | 7,692 | 4,814 |
| 50% Biogenic | 30,295 | -24,011 | -55,605 | -70,242 | -73,303 |
| 40% Biogenic | -57,928 | -116,687 | -150,872 | -166,709 | -170,021 |
| ***Energy export option: Electricity & Steam*** | | | | | |
| 57% Biogenic (Applicant Core) | 118,785 | 76,065 | 51,212 | 39,698 | 5,084 |
| 50% Biogenic | 46,847 | 889 | -25,849 | -38,236 | -73,032 |
| 40% Biogenic | -41,376 | -91,788 | -121,116 | -134,703 | -169,750 |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| **UK42** | Paragraph 42 | Reducing electricity and heat export by 15% reduces the modelled benefit of energy (electricity / heat) exported from the Medworth plant. The degree of impact depends on the assumed electricity generation emissions factor. | See response for UK41 |
| **UK43** | Paragraph 43 | If power output was reduced by 16% then this would be sufficient to tip the Applicant's Core Current Grid Case for 50% biogenic and with electricity & steam output into being worse than landfill. | See responses for UK15 and UK41 |
| **COMBINATION OF SENSITIVITIES** | | | |
| **UK44** | Paragraph 44 | These sensitivities have been considered in isolation above. | Noted |
| **UK45** | Paragraph 45 | When these sensitivities are combined then a lower level of deviation from the Applicant's core approach for each of the sensitivities considered would be necessary to result in negative (adverse) net GHG emissions across all of the waste composition and electricity generation emissions factor cases considered in this sensitivity analysis. | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, action point No.7 [EV-059].** |
| **UK46** | Paragraph 46 | The table below shows the impact of reducing energy production from the Medworth facility by 5%, crediting the plant for 60% of its total biogenic carbon sequestration benefit, and assuming a landfill gas recovery rate of 72% (with the | See response for UK03 regarding the submission of additional sensitivity analysis in response to **ISH 4, action point No.7 [EV-059].** |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | Applicant's 57% methane:CO2 ratio for landfill gas). | |

**CUMULATIVE SENSITIVITY TO A COMBINATION OF FACTORS**

| Waste composition | Electricity generation emissions factor ($CO_2e$/kWh) Unabated CCGT 380g | Current Grid (Applicant Core) 182g | 2027 Grid Average 67g | 2027-2066 Grid Average 13g | 2050+ Grid Average 2g |
|---|---|---|---|---|---|
| Energy export option: *Electricity only* | | | | | |
| 57% Biogenic (Applicant Core) | -21,001 | -80,290 | -114,783 | -130,763 | -134,104 |
| 50% Biogenic | -71,914 | -134,633 | -171,121 | -188,025 | -191,560 |
| 40% Biogenic | -80,527 | -147,960 | -187,192 | -205,367 | -209,167 |
| *Energy export option: Electricity & Steam* | | | | | |
| 57% Biogenic (Applicant Core) | -2,501 | -52,461 | -81,526 | -94,991 | -133,802 |
| 50% Biogenic | -53,415 | -106,804 | -137,865 | -152,254 | -191,258 |
| 40% Biogenic | -62,028 | -120,132 | -153,935 | -169,596 | -208,865 |

| | | | |
|---|---|---|---|
| **TECHNICAL APPENDICES** | | | |
| **Application correction value to scope-in omitted stages** | | | |
| **UK47** | Paragraph 47 | The two sets of values in APP-041 Table 14.31 highlighted in yellow and in cyan (below) were omitted by the Applicant from APP-088 Table 14.C.2: | See response for UK06 |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | **Table 14.31 GHG emission estimates during the lifecycle of the Proposed Development case and without Proposed Development case** | |

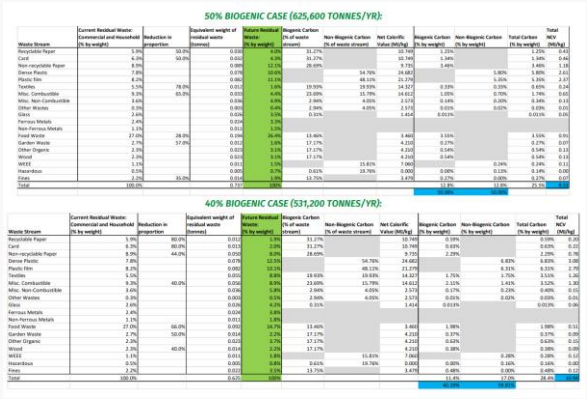
| Stage of the Proposed Development | Main stage of Proposed Development life cycle | Estimate emissions 'without Proposed Development' case ($ktCO_2e$) | Estimate emissions 'with Proposed Development' case ($ktCO_2e$) |
|---|---|---|---|
| Construction | A1 – A2 – A3 – Raw materials supply, transport and manufacture | - | 35.55 |
| | A5 – Construction process stage | - | 4.90 |
| | A4 – Construction Transport | - | 7.93 |
| Operation | B2 – B5 – Maintenance, repair, replacement and refurbishment * | - | 4.91 |
| | B6 – Operational energy | 25.04 | 10,933.05 |
| | B7 – Operational water | - | 0.24 |
| | B8 – Other operational processes: Landfill | 11,489.35 | - |
| | B8 – Other operational processes: Operational transport | 103.85 | 271.68 |
| | B8 – Other operational processes: IBA and APCr | - | 142.60 |
| Decommissioning | C1 – C2 – C3 – C4 – End of life, including deconstruction, transport, waste processing for recovery and disposal * | - | 48.38 |
| General | D – Avoided emissions | -801.42 | -3,203.20 |
| TOTAL | | 10,816.83 | 8,246.03 |
| Net change in GHG emissions resulting from the Proposed Development ($ktCO_2e$) | | - | -2,570.80 |

* Assumed to be equivalent to construction.

| | | | |
|---|---|---|---|
| **UK48** | Paragraph 48 | This means that the Applicant's sensitivity analysis omitted 128.89ktCO2e (over 40 years) in their 'without Proposed Development' (landfill) case (i.e. the sum of the column 3 values shown in yellow above) and the Applicant omitted 516.21ktCO2e (over 40 years) in their 'with Proposed Development case' (i.e. the sum of the column 4 values shown in cyan above) which represents a total difference to the Net change in | See response for UK06. |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | GHG emissions over 40 years resulting from the Proposed Development of -387.32ktCO2e (i.e. 128.89 - 516.21). | |
| **UK49** | Paragraph 49 | Because the values in APP-088 Table 14.C.2 are presented on a per-year basis (expressed as tonnes of CO2e), the 40-year values from APP-041 Table 14.31 (which are in ktCO2e) have to be divided by 40 and multiplied by 1,000 to make them equivalent. | See response for UK06. |
| **UK50** | Paragraph 50 | To be consistent with APP-041 Table 14.31 every result in APP-088 Table 14.C.2 needs to be around 9,683tCO2e/year lower (i.e. 387.32/40 x 1000). | See response for UK06. |
| **UK51** | Paragraph 51 | The per-year figure was calculated directly from the equivalent columns in the Applicant's 'GHG Assessment 1.xlsx' summary sheet which is of higher precision than the values displayed in APP-041 Table 14.31. | Noted. |
| **UK52** | Paragraph 52 | As a general practice, UKWIN uses the highest degree of precision whilst presenting these values in rounded form for the purpose of readability. | Noted. |
| **Waste composition cases** | | | |
| **UK53** | Paragraph 53 | The analysis shows the potential impact of the Medworth facility treating a lower proportion of | See response for UK15. |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | biogenic waste than assumed in the Applicant's core case. | |
| **UK54** | Paragraph 54 | There is uncertainty about the extent to which the Applicant's original feedstock composition case is representative of their anticipated feedstock, and as such changing a material stream in one direction or another does not necessarily indicate a shift in the composition of residual waste to that degree. | See response for UK15. |
| **UK55** | Paragraph 55 | In modelling the 50% biogenic case UKWIN matched the 9.53MJ/kg Total NCV used in the Applicant's core case, which enabled the model to maintain the original quantities of waste to be processed (i.e. 625,600 tonnes per annum). | See response for UK15. |
| **UK56** | Paragraph 56 | In modelling the 40% biogenic case UKWIN matched the Total NCV to around 10.9MJ/kg to be in line with the Applicant's Design Load Case (DLC) set out in APP-041 Graphic 14.2, resulting in the lower annual tonnage of 531,200 tonnes per annum (as per the Applicant's assumed optimal feedstock rate for the associated Total NCV of around 10.9MJ/kg). | See response for UK15. |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | |  | |
| **Accounting for biogenic carbon sequestration** | | | |
| **UK57** | Paragraph 57 | In the Applicant's APP-088 Climate Appendices, at internal page 14B.2, their 'LFG' (Landfill Gas) parameters specify a value for "Biogenic carbon in residual waste converted to landfill gas (LFG)" of 50%. This is used in the Applicant's model to determine "Total carbon converted to LFG [landfill gas] (tonnes carbon)". | Noted. |
| **UK58** | Paragraph 58 | That is to say, the Applicant assumed that 50% of the biogenic carbon is turned into landfill gas. | See response for UK24. |
| **UK59** | Paragraph 59 | Determining how much CO2 is sequestered is therefore a simple process of determining how much biogenic carbon remains (i.e. the other 50%) and then determining how much CO2 that remaining biogenic carbon would emit if it were | See response for UK24. |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | incinerated instead of landfilled (which is 44/12 tonnes of CO2e per tonne of carbon sequestered, as that is how much the weight/mass of carbon increases when the carbon is combined with oxygen as part of the combustion process). | |
| **UK60** | Paragraph 60 | This means that the quantity of biogenic carbon sequestered in landfill is dependent on the waste composition, and so an assessment has to be made about how much biogenic carbon would be sequestered depending on the quantity of total carbon in the waste, the biogenic fraction of that total carbon, and the amount of that biogenic fraction that is assumed to be sequestered in landfill (rather than converted into landfill gas). | See response for UK24. |
| **UK61** | Paragraph 61 | Using the Applicant's assumption for the factors outlined above, the impact for the different waste cases considered within this sensitivity analysis are as follows:<br><br>• **57% Biogenic (Applicant Core Case):**<br>-171,847 tonnes of CO2e per annum (-46,867 carbon × 44/12).<br><br>• **50% Biogenic:**<br>-146,310 tonnes of CO2e per annum (-39,903 carbon × 44/12).<br><br>• **40% Biogenic (at 531,200 tonnes of waste per annum):**<br>-26,688 tonnes of CO2e per annum (-7,279 carbon × 44/12). | See responses for UK15 and UK24. |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| **UK62** | Paragraph 62 | As can be expected, waste compositions with lower levels of biogenic waste result in lower levels of biogenic carbon being sequestered. | See responses for UK15 and UK24. |
| **UK63** | Paragraph 63 | The amount of biogenic CO2e sequestered in the 40% biogenic case would be a higher figure of -31,431 tonnes of CO2e per annum if it was assumed that 625,600 tonnes of waste per annum would be processed in line with the assumptions used for the other waste composition cases considered in the sensitivity analysis. | See responses for UK15 and UK24. |
| **UK64** | Paragraph 64 | The quantity of biogenic CO2e sequestered in the 57% Biogenic (Applicant Core) case is in line with Equanimator's conclusion set out in Table 2 of Appendix 5 of REP2-046 which provided a value for 'Carbon Sequestration in Landfill' of 171,836 tonnes of CO2e with the 1 tonne difference due to rounding. | See response for UK24. |
| **UK65** | Paragraph 65 | The quantity of biogenic CO2e sequestered in the 57% Biogenic (Applicant Core) case is 46,867.47 tonnes of carbon, which in Table 2 of Appendix 5 of REP2-046 was rounded down to 46,867 – this produced a slightly lower result when subsequently multiplied by 44/12. | See response for UK24. |
| **UK66** | Paragraph 66 | The reason that the results are similar is that they both follow the same methodology and are both based on the Applicant's assumed level of biogenic carbon sequestration in landfill. | See response for UK24. |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| **Further rationale for sensitivity analysis of the assumed proportion of methane in landfill gas** | | | |
| **UK67** | Paragraph 67 | As per the Applicant's APP-088 Climate Appendices, internal page 14B.2, the Applicant assumes that "The ratio of methane to carbon dioxide in UK landfill gas is calculated to be 57:43% rather than the generally assumed 50:50%" | See response for UK37. |
| **UK68** | Paragraph 68 | The 50:50% figure is the default value from the IPCC guidance and is sometimes expressed as a 1:1 mix of methane (CH4) to carbon dioxide (CO2) by volume, or as a CH4 fraction of 0.5 (i.e. 50%). | See response for UK37. |
| **UK69** | Paragraph 69 | The 50:50% value was used in Defra's Carbon Based Modelling Approach report, which notes that: "Landfill gas produced by decomposition of biogenic waste is a mixture of methane and carbon dioxide. The proportions of each will be dependent upon the exact biological processes being undergone but a reasonable assumption would be that landfill gas is approximate 1:1 mix by volume". | See response for UK37. |
| **UK70** | Paragraph 70 | The November 2014 report entitled 'Review of Landfill Methane Emissions' (Ref WR1908) produced for Defra produced by Golders Associates was cited by the Applicant in APP-041 footnote 57 on internal page 14-22 of their Climate Assessment as the basis for the Applicant's assumption of a 57% proportion of methane in | See response for UK37. |

| ID | Topic/Para | Response | Applicant Comment |
|---|---|---|---|
| | | landfill gas rather than the more generally assumed IPCC value of 50%. | |
| **UK71** | Paragraph 71 | According to the official peer review at the start of the aforementioned WR1908 document: "The peer review opinion was divided on the recommendation to amend the proportion of methane produced from IPCC default value of 50% (IPCC 2006) to 57% for modelling. The underlying question is whether the methane to carbon dioxide ratio observed during monitoring i.e. at point of release is reflective of the molar concentration rates assumed during landfill gas generation, and or whether there are any secondary processes that significantly change the ratio prior to landfill gas emissions monitoring". | See response for UK37. |
| **UK72** | Paragraph 72 | This implies that there was some uncertainty from experts in the field as to whether or not to deviate from the 'generally assumed' IPCC default value of 50:50%, making this an appropriate focus for sensitivity analysis.<br>Summary of sensitivity scenarios<br>Parameter / Applicant assumption / UKWIN main sensitivity assumption / UKWIN cumulative sensitivity assumption<br>Reduced energy production / 0% / 15% (and 16%) / 5%<br>Biogenic carbon sequestration credit / 0% / 100% (and 87%) / 60%<br>Landfill gas recovery rate / 68% / 75% / 72%<br>Proportion of methane in landfill gas / 57% / 50% / 57% | See response for UK37. |

# 3. Comments on Deadline 5 submissions from Kerys Jordan

**Table 3.1 Comments on Deadline 5 submissions from Kerys Jordan [REP5-049]**

| ID | Topic/Para | Kerys Jordan Response | Applicant Comment |
|---|---|---|---|
| **KJ.01** | Paragraph 1 | I write as a resident of Wisbech to lodge my objection to the proposed CHP scheme by MVV Environment. This scheme is ill thought through, inappropriate for the area and will cause untold damage to the town and its residents. | Noted. The Applicant's position is that there is a need for the EfW CHP Facility and that the planning balance which is set out within the **Planning Statement (Volume 7.1) [APP-091]** is assessed as being in favour of the Proposed Development. |
| **KJ.02** | Paragraph 2 | The scheme is far too close to residential areas and major schools and the effects on the health and welfare of residents should be a prime consideration in the decision on this development. | The concerns relating to pollution, particularly on schools and other sensitive receptors, including residential properties have been raised by other IPs and responded to by the Applicant. For example, see the Applicant's response to RR-026 and RR-033 **(Volume 9.2) [REP1-029]**.<br><br>In summary, the assessment of health is presented in **Environmental Statement (ES) Chapter 16 Health (Volume 6.2) [APP-043],** it concludes that, with a range of mitigation measures embedded into the draft **DCO [REP1-007] and Environmental Permit** there will no significant adverse health effects.<br><br>The UKHSA **[RR-023]** notes within its relevant representation that it is satisfied that the Proposed Development would not result in any significant adverse impact on public health. This is confirmed within the **Statement of Common Ground between Medworth CHP Limited and the UK Health Security Agency (Volume 9.8) [REP2-013].** |

| ID | Topic/Para | Kerys Jordan Response | Applicant Comment |
|---|---|---|---|
| **KJ.03** | Paragraph 2 | The cost is too high for the minimal benefit of a handful of long term jobs created by the site. Any jobs created by the construction phase of the project are likely to benefit contractors outside the local area and will bring very little economic benefit to the area. | **ES Chapter 15: Socio-economics, Tourism, Recreation and Land Use (Volume 6.2) [APP-042]** establishes the economic effects arising from the construction and operation of the Proposed Development which include for job creation. The Applicant is seeking to maximise local jobs through the implementation of the **Outline Employment and Skills Strategy (Volume 7.8) [APP-099]**. This sets out the measures which the Applicant proposes to take to encourage local workers and local businesses to respond to the economic opportunities presented by the Proposed Development. |
| **KJ.04** | Paragraph 2 | Other schemes in the UK have shown that being near such a site is detrimental to health and this should be a serious consideration for any future scheme. | The **ES Chapter 16: Health (Volume 6.2) [APP-043]** has adopted a 'source-pathway-receptor' approach and has been informed by other ES Chapters, principally:<br>• **Chapter 6: Traffic and Transport (Volume 6.2) [APP-033];**<br>• **Chapter 7: Noise and Vibration (Volume 6.2) [APP-034];**<br>• **Chapter 8: Air Quality (Volume 6.2) [APP-035];**<br>• **Chapter 9: Landscape and Visual (Volume 6.2) [APP-036]; and**<br>• **Chapter 15: Socio-economics, Tourism, Recreation and Land Use (Volume 6.2) [APP-042].**<br><br>In summary, the assessment of health is presented in **ES Chapter 16 Health (Volume 6.2) [APP-043]**, it concludes that, with a range of mitigation measures embedded into |

| ID | Topic/Para | Kerys Jordan Response | Applicant Comment |
|---|---|---|---|
| | | | the draft **DCO [REP1-007] and Environmental Permit** there will be no significant adverse health effects.<br>**The Human Health Risk Assessment (HHRA), ES Appendix 8B: Air Quality Technical Report, Annex G (Volume 6.4) (Revision 3.0) [REP2-006 (clean copy) and REP2-007 (tracked)]** considers the potential effects arising from chimney emissions upon humans. The assessment concludes that potential effects are not significant.<br><br>The UKHSA **[RR-023]** notes within its relevant representation that it is satisfied that the Proposed Development would not result in any significant adverse impact on public health. This is confirmed within the **Statement of Common Ground between Medworth CHP Limited and the UK Health Security Agency (Volume 9.8) [REP2-013].** |
| **KJ.05** | Paragraph 3 | The scheme will introduce a terrific number of additional lorry movements into the town. The road infrastructure is inadequate for this increase as it is already under pressure and barely functioning. Anyone that lives in the area will tell you how often they sit in traffic queues and tailbacks, on a daily basis, just to get to work or take children to school, this will cripple the existing network. | The Applicant has undertaken a **Transport Assessment (Volume 6.4) [APP-073]** which models the additional traffic numbers during the construction and operation phases. This extent of this assessment was discussed and agreed with the relevant highway authorities which are Cambridgeshire County Council, Norfolk County Council and National Highways. All three organisations agree that there will not be congestion as a result of the Proposed Development. The Applicant has also committed to implementing routeing restrictions to prevent HGVs from travelling through the centre of Wisbech. These restrictions are presented within the **Outline CTMP [REP5-011]** and **Outline OTMP [REP3-** |

| ID | Topic/Para | Kerys Jordan Response | Applicant Comment |
|---|---|---|---|
| | | | **025]** and secured by a requirement in the **draft DCO (Volume 3.1) [REP5-005]**. |
| **KJ.06** | Paragraph 3 | The siting of this development in a highly populated, busy area is inappropriate and without significant investment in the surrounding infrastructure, is unsustainable for the long term. | The Proposed Development includes for the infrastructure required to enable its construction and operation. **ES Chapter 3 Description of the Proposed Development (Volume 6.2) [APP-030]** explains the infrastructure which is proposed and which includes for Access Improvements to New Bridge Lane which would widen it so that it is capable of accommodating HGV traffic and removes the need for HGVs to access the site via Algores Way during operation. The Proposed Development also includes for an electrical Grid Connection and the necessary infrastructure works at the Walsoken Substation and a Water Connection for clean and foul which has been designed in consultation with Anglian Water. |
| **KJ.07** | Paragraph 4 | Burning waste should be a last resort after every possible action has been taken to recover and recycle everything possible, this scheme has not demonstrated robustly enough that they will only take waste that is not recoverable or usable by any other means. This "green" scheme is in no way green, they are not taking waste to create clean energy, they are burning waste to make money at the expense of the residents of Wisbech. Something we neither need or want. | The Applicant agrees that all measures should be taken to promote re-use and recycling. The waste received by the EfW CHP Facility is residual, that is, it is the waste which remains once re-use and recycling has removed other waste. Currently this waste is landfilled. The East of England has the highest landfill rate in the country. The Proposed Development would extract useful heat and electricity from the residual waste and move its treatment up the waste hierarchy and away from landfill.<br><br>The **draft DCO (Volume 3.1) [REP5-005]** includes a requirement that the Proposed Development must comply with the waste hierarchy. This is to ensure that items that could be recycled are not used as fuel for the Proposed Development. |

| ID | Topic/Para | Kerys Jordan Response | Applicant Comment |
|---|---|---|---|
| **KJ.08** | Paragraph 5 | This scheme should be rejected at every level of government and the needs and wants of the local residents should mean this scheme will never come to fruition. | Please see response to KJ.01. |