Medworth Energy from Waste
Combined Heat and Power Facility

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Closing Position Statement on Climate

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1. Purpose of this Position Statement on Climate

1.1 This Position Statement has been prepared to assist the Examining Authority in preparing its Recommendation to the Secretary of State in determining the DCO Application for the Proposed Development by collating and summarising the key points relating to climate.

2. The Policy Lens

2.1 The Applicant notes that the important role of, and need for, electricity generation from EfW technology is established via National Policy Statements EN-1 and EN-3 (both adopted and the revised drafts dated March 2023). Policy records that the recovery of energy from the combustion of waste plays an increasingly important role in meeting the UK's energy needs, is deemed renewable and forms an important element of waste management strategies in both England and Wales (paragraph 2.5.2 of adopted NPS EN-3 and 3.7.2 of revised draft EN-3).

2.2 The Applicant notes that the revised draft NPS EN-1 and EN-3 constitute important and relevant matters for the Secretary of State to consider under s104 of the Planning Act 2008 (as confirmed in paragraph 4.4 of the Secretary of State's Decision Letter for the Boston Alternative Energy Facility DCO).

2.3 Whilst the Applicant acknowledges that the principal purpose of the combustion of waste is to reduce the amount of waste going to landfill, in accordance with the waste hierarchy, (and to recover energy from that waste as electricity or heat) it is also important to recognise that it can support a reduction in carbon emissions when compared with landfill. Government policy states that *'energy recovery from residual waste has a lower GHG impact than landfill* (Draft NPS EN-1 paragraph 3.3.41).

2.4 During the Examination and in the context of climate, there has been a focus on the GHG assessment undertaken by the Applicant presented within **ES Chapter 14 Climate (Volume 6.2) [APP-041]** and upon the conclusions reached which is that the Proposed Development would have a beneficial effect upon the UK's pathway to net zero when compared with landfill. Despite national policy recognising the benefits over landfill, IPs have challenged both the modelling presented by the Applicant and the conclusions it has drawn from that modelling.

2.5 The Applicant maintains its position that the GHG assessment presented within the Environmental Statement is robust and in accordance with standard methodology. The Applicant acknowledges, however, that assessments which seek to model future emissions require assumptions to be made as to the speed of grid decarbonisation and waste composition, for example, and it did set out the limitations and assumptions supporting its assessment and present a sensitivity analysis as part of its application submission (**ES Chapter 14 Climate Appendix 14A and B (Volume 6.4) [APP-088]**).

2.6 During the examination and in response to IP submissions, the Applicant also prepared an additional, Technical Note (**Applicant's Response to ISH4 Action Point 7 Technical Note: Climate Additional Sensitivity Assessment [REP6-030])**. This was prepared in consultation with Cambridgeshire County Council and it extended the sensitivity testing to cover 31 scenarios.

2.7 Future emission scenarios are a useful way to understand the parameters within which a development may operate. However, it is important to keep in mind the relevant policy tests, particularly those contained within the Draft NPS EN-1. The draft NPS states that whilst a carbon assessment (in an environmental statement) will include an assessment of operational GHG emissions, such operational emissions are to be addressed in a managed, economy-wide manner such that the 'Secretary of State does not, therefore, need to assess individual applications for planning consent against operational carbon emissions and their contribution to carbon budgets, net zero and our international climate commitments'. (Draft NPS EN-1 paragraph 5.3.12).

2.8 With regard to national policy therefore, the conclusion can be drawn that:

- EfW is a renewable energy technology (subject to achieving R1 status);
- that it emits fewer emissions than landfill; and
- that whilst required as part of the environmental assessment, the operational emissions from individual applications do not need to be assessed against carbon budgets and commitments.

3. The relevance of scenarios

3.1 Much discussion during the examination has been given to the need for and scope of GHG assessment scenarios.

3.2 In addition to the sensitivity assessment presented within **ES Chapter 14 (ES Chapter 14 Climate Appendix 14B (Volume 6.4) [APP-088])** and as referred to above, the Applicant presented a further 31 scenarios within the **Applicant's Response to ISH4 Action Point 7 Technical Note: Climate Additional Sensitivity Assessment [REP6-030]**. The assessment scenarios include a range of differing waste compositions, for future grid decarbonisation, CHP, landfill gas capture rates, CCS and combinations thereof. The Applicant also considered the likelihood of each scenario materialising, informed by an understanding of current policy and future policy direction.

3.3 The number of additional sensitivity assessments presented within the document demonstrates the complexity in determining GHG emissions into the future. Noting that there is potential for variation in the factors for estimating GHG emissions, for conceivable future scenarios the majority do 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. This is clearly consistent with Government policy referred to in paragraph 2.3 above.

4. Reasons why the Proposed Development is "Fit for the Future"

4.1 The GHG assessment presented as the base case within **ES Chapter 14 Climate (Volume 6.2) [APP-041]** for the Proposed Development does not consider the additional emissions savings that would be delivered via CHP and Carbon Capture. However consistent with national policy, the Proposed Development is '*fit for the future*' including within its design and within the commitments made by the

Applicant, measures to reduce further its effect upon the climate. There are three key elements:

- it is Combined Heat and Power (CHP) ready **[REP5-038]**;
- it is Carbon Capture/Decarbonisation ready **[REP5-038]**; and
- it is significantly above the threshold for R1 compliance **[REP1-058]**.

Combined Heat and Power (CHP)

4.2 Revised draft NPS EN-1, section 4.7 states that to be economically viable as a CHP plant, a generating station needs to be located sufficiently close to users with heat demands.

4.3 The availability of potential CHP industrial users was an essential siting criterion when identifying a site for the Proposed Development. The site selection process is set out in more detail in **[APP-029]** and compliance with the applicable statutory requirements and policies relating to site selection is set out in **[REP5-037]**.

4.4 Paragraph 4.7.19 of Revised Draft NPS EN-1 states that where it is "*reasonably possible for the applicant to reach agreement with a potential heat customer during the lifetime of the station, the Secretary of State may wish to impose requirements to ensure that the generating station is CHP-ready and designed in order to allow heat supply at a later date*".

4.5 The **Combined Heat and Power Assessment [APP-097]** sets out the viability of a CHP connection from the EfW CHP Facility Site. In this regard, the policy is framed in terms of the 'reasonable possibility' of an applicant reaching agreement with heat customers "*during the lifetime of the station*". There is no requirement for any evidence that such agreements are in place prior to determining an application. The absence of any such agreements with heat customers accordingly does not count against the Proposed Development. Indeed, it is only to be expected that commercial agreements will be concluded following a grant of development consent, when potential customers have clarity as to whether or not a facility will actually come forward.

4.6 The core GHG assessment presented within **ES Chapter 14: Climate [APP-088]** does not include within it the positive benefits that would arise through the delivery of CHP. The sensitivity analysis contained within **ES Chapter 14: Climate Appendix B (Volume 6.4) [APP-088])** and **Applicant's Response to ISH4 Action Point 7 Technical Note: Climate Additional Sensitivity Assessment [REP6-030]** do include one or more scenarios with CHP delivered and identify a significant reduction in GHG emissions. Heat would replace the use of natural gas as fuel for heating and it would enhance the net savings in emissions attributable to the EfW CHP Facility.

4.7 Requirement 25 in the **draft DCO (Volume 3.1) [REP7-033]** also requires the Applicant to install apparatus to facilitate the CHP Connection when constructing the EfW CHP Facility (further details of the CHP embedded design measures secured by Requirement 25 are set out in **[REP5-038]**), and to regularly submit a CHP review report to the Secretary of State. The Proposed Development will therefore be CHP-ready and designed to allow heat supply. The Proposed

Development accordingly complies with the adopted and revised draft NPS EN1 and the commitments set out in Requirement 25; consequently, positive weight can and should be given in the planning balance regarding the Proposed Development's ability to provide CHP.

Carbon Capture/Decarbonisation Readiness

4.8 Draft NPS EN-1, section 4.8, requires combustion plants with a generating capacity of 300MW or greater to be Carbon Capture or Decarbonisation Ready by retaining control over sufficient land to install and use carbon capture equipment, and to submit update reports to the Secretary of State on the technical aspects of its carbon capture readiness status. The Applicant has ensured that the Proposed Development meets this standard, despite being, at 58MW, significantly below the threshold where this is currently required.

4.9 Carbon Capture/Decarbonisation Readiness is secured by Requirement 22 and Requirement 23 of the **draft DCO (Rev 6) (Volume 3.1) [REP7-033]**. Requirement 22 ensures that appropriate land is set aside and maintained for future carbon capture and export equipment. It also requires the Applicant to install apparatus to facilitate installation of the carbon capture and export equipment when constructing the EfW CHP Facility Site (further details of the carbon capture and export embedded design measures secured by Requirement 22 are set out in **[REP5-038]**). Requirement 23 ensures that the feasibility of carbon capture and export is kept under review, biannually. This approach has precedent in The Drax Power (Generating Stations) Order 2019 and The Thurrock Flexible Generation Plant Development Consent Order 2022.

4.10 As set out in the Applicant's response to PND.3.8 in the **Applicant's response to the ExA's Written Questions (ExQ3)** (**Volume 16.2) [REP7-040]** and in PND.2.8 in **[REP5-032]**, this approach to Carbon Capture/Decarbonisation Readiness is fully in compliance with the adopted and revised draft NPS policies, and the commitments set out in Requirements 22 and 23 means that positive weight can and should be given in the planning balance in respect of the ability of the Proposed Development to provide carbon capture in the future.

R1 compliance

4.11 In order to comply with the Waste Framework Directive, and to qualify as an energy recovery facility, a development must be capable of achieving an R1 value in excess of 0.65. The R1 design calculation for the Proposed Development is 0.81, significantly above the current threshold for an energy recovery facility. By ensuring the Proposed Development will recover energy in excess of the R1 threshold, the Applicant has ensured that the Proposed Development is as efficient as possible, and that it is future-proofed against any increases to the R1 threshold that may occur. Details of this calculation are set out in the **Technical Note: R1 Calculation (Volume 9.24) [REP1-058]**.

5. Conclusion

5.1 National policy is clear that with regard to operational climate emissions, there is no requirement to consider applications individually for their contribution towards the

UK's progress towards net zero and carbon budgeting. Notwithstanding this clear policy instruction, the Proposed Development, as EfW, would emit fewer emissions than landfill. National policy and the Applicant's assessment are consistent with this conclusion and the Proposed Development is fully compliant with the adopted and revised draft NPS EN-1 and EN3 on this matter.

5.2 The Proposed Development is 'Future fit'. It is designed to generate and deliver heat and power to local industry, which would replace natural gas as a fuel and deliver additional GHG emissions savings. DCO Requirement 25 secures the delivery of CHP should local industry sign as customer(s).

5.3 Future fit is also demonstrated by the set-aside of land for carbon capture and export equipment and by the installation of the necessary equipment. Future delivery subject to policy and prevailing economic conditions is secured through DCO Requirements 22 and 23.

5.4 The Proposed Development is fully compliant with the adopted and revised draft NPS EN-1 and EN3 on the matter of CHP and CCR.