Written summary of oral case

SUMMARY OF UKWIN'S ISH1 ORAL SUBMISSIONS

Proposed Development:
North Lincolnshire Green Energy Park

Proposed Location:
Flixborough Wharf, Flixborough Industrial Estate, North Lincolnshire

Applicant:
North Lincolnshire Green Energy Park Limited

Planning Inspectorate Ref:
EN010116

Registration Identification Ref:
20031828

NOVEMBER 2022

United Kingdom Without Incineration Network

SUMMARY

UKWIN set out how sensitivity analysis for 68% recycling fails to account for the Environment Act target, associated with 70%-75% recycling. Relevant extracts from 'Consultation on environmental targets' alongside the 'Impact Assessment' and 'Detailed evidence report' are included.

At ISH1 Mr. Aumônier referred to Air Products' EfW capacity entering commissioning but being subsequently abandoned. UKWIN noted Air Products plasma arc gasification facilities were exceptional, so it is incorrect to characterise the scheme as having been abandoned for no apparent reason.

UKWIN noted the Rivenhall Integrated Waste Management scheme demonstrates how developers sometimes propose integrated schemes but subsequently decide only some elements are commercially viable. UKWIN asked the Applicant to clarify whether they were applying for 'all or nothing' development consent or reserving the right to deliver only some elements.

UKWIN asked for more information about the derivation of composition-related figures in APP-054 Table 5 and elsewhere, including why metal recovery was assumed to be less than real world levels reported for other RDF incinerators.

UKWIN explains how if metals recovered from IBA are reduced to reflect the Ferrybridge real world average, instead of reducing GHG emissions the Applicant's proposal would increase GHG emissions.

UKWIN noted Regulation 12 applied only 'on the transfer of waste', so cannot be relied upon to guarantee waste is collected and processed to prevent recyclable material being used as incinerator feedstock.

AGENDA ITEM 3 (NEED FOR THE PRINCIPAL DEVELOPMENT)

Need for the Proposed Development in the context of Government Policy and emerging Government Policy

1. The Applicant's initial RDF Supply Assessment [APP-036], dated 9th November 2021, assumes a maximum household recycling rate of 65%. However, this assessment predates, and therefore does not consider the impact of, the Government's proposed Environmental Target – associated with the Environment Act (2021) - to halve residual waste sent to either landfill or incineration by 2042.
2. As part of the Issue Specific Hearing held on 16th November 2022 (ISH1) Mr. Aumônier, speaking on behalf of the Applicant, stated that the Applicant will be submitting a revised RDF Supply Assessment as part of their Deadline 1 submissions, and that this would include sensitivity analysis for a rate of up to 68% household recycling.
3. UKWIN set out our view that this sensitivity analysis would fall short of adequately accounting for the Government's Environment Act target.
4. On page 31 of their 'Consultation on environmental targets' document (dated 6th May 2022) the Government states that their target to halve residual waste sent to either landfill or incineration by 2042 relative to the 2019 base year would represent a national municipal recycling rate for England of around 70% - 75% by 2042.[1]
5. At ISH1 UKWIN asked the Applicant whether or not their intended approach to justifying need was to rely on assumptions that are incompatible with meeting the Government's emerging waste reduction target which the Government has said is achievable.
6. UKWIN notes that evidence of the Government's position that their proposed target ambition level is achievable can be found in the Waste Reduction section of the Impact Analysis of the Environment Act Targets published by Defra (dated 28th April 2022).[2]
7. UKWIN will make further submissions regarding the Government's residual waste reduction targets in our Written Representation.

[1] "Meeting the target will require progress beyond the current commitment to achieve a 65% municipal recycling rate by 2035, and would represent a municipal recycling rate of around 70-75% by 2042."

[2] "A legally binding long-term target gives a clear signal to industry of the direction of future government policy. This will increase investor confidence and encourage industry to invest in infrastructure and research that will improve the circularity of the economy." [page 16] and "The target will be met by using a range of government policy levers. These levers could include regulation that puts in place rules and standards that producers must follow which will encourage all of industry to improve their products recyclability, repairability and reusability." [page 16] and "The modelled trajectories…provide further evidence that our proposed target ambition level is ambitious but achievable and that our illustrative policy pathway is a sensible illustration of the level of waste reduction that may be achieved." [page 58]

8. In response to a request from the Examining Authority, the summary of our ISH1 oral representations is accompanied by the following documents pertaining to the Government's residual waste reduction target, all of which were published and made publicly available on the Defra website:

    a) **'Consultation on environmental targets'** dated 6th May 2022 - Extracts relevant to target proposals for resource efficiency and waste reduction

    b) **'Resource efficiency and waste reduction targets - Impact Assessment'** dated 28th April 2022

    c) **'Resource efficiency and waste reduction targets - Detailed evidence report'** dated 28th April 2022

Air Products

9. As part of ISH1 Mr. Aumônier, speaking on behalf of the Applicant, referred to Energy from Waste (EfW) capacity associated with Air Products that had entered commissioning and was 'working' but subsequently abandoned to make the point that not all potential EfW capacity becomes operational.

10. In response, UKWIN noted that the Air Products facilities to which Mr. Aumônier referred were exceptional, not least because they were the only plasma arc gasification plants to have been constructed in the UK.

11. This novel technology fell well short of the developer's expectations, and so it would be incorrect to characterise the Air Products scheme as a 'working' facility that was abandoned for a reason that could be considered relevant to the deliverability of incineration capacity currently under construction.

12. UKWIN will make further representations on the exceptional nature of the Air Products' Tees Valley gasification facilities in our Deadline 2 Written Representation (WR), including how the Air Products scheme differed from any and all of the EfW capacity currently operational, under construction, or being applied for, anywhere in the UK.

AGENDA ITEM 4 (COMPONENTS OF THE NLGEP PROJECT)

Overview of the project as a whole, explaining each of the different elements of the project, their dependencies, their timing and why they are included within the DCO application

13. As part of ISH1, UKWIN noted how the Rivenhall Integrated Waste Management Facility (IWMF) scheme in Essex demonstrates that sometimes developers propose mixed or integrated waste treatment schemes, such as this one for North Lincolnshire, but subsequently decide that only some elements - such as the incinerator - are commercially viable.

14. Such post-permission changes give rise to problems, not least where the benefit of the development scheme is assessed as a whole but the development proceeds on a piecemeal basis.

15. As such, UKWIN asked the North Lincolnshire Applicant to clarify whether they were applying for an 'all or nothing' development consent, or whether instead they wished to reserve the right to deliver only some of the proposed elements.

AGENDA ITEM 5 (FEEDSTOCK)

Overview of the composition of the waste to be used as fuel and where it will be sourced from, the controls that will be in place to manage the content of the fuel, and how the composition and sources might be expected to change over time

16. UKWIN welcomed the Applicant's commitment to provide more information about their anticipated feedstock composition at Deadline 1, including compositional breakdowns.

17. UKWIN asked for more information about how the composition-related figures used in Table 5, on page 31, of the Applicant's Environmental Statement's chapter on Climate [APP-054] and elsewhere were derived.

18. In this respect, UKWIN made clear that we expected the Applicant to provide:

    a) The anticipated proportion of the feedstock that would be dense plastic, plastic film, textiles, etc., alongside the carbon content, biogenic content, and DDOC (degradable, decomposable organic content) for each of these fractions, and how the assumed quantities and characteristics of these fractions contribute to the overall feedstock assumptions;

    b) An explanation as to why mention is made to the removal of ferrous metals but not to the removal of non-ferrous metals in the RDF production process, as set out at paragraph 5.4.2.13 of the Environmental Statement's chapter on Climate [APP-054];

    c) An explanation of why the level of metal extraction for the North Lincolnshire proposal was assumed to be less than the real world levels reported for other RDF incinerators, specifically the bottom ash recovered from enfinium's Ferrybridge facilities in 2020 and 2021 (relevant Annual Performance Report extracts accompany this submission); and

d) Whether or not, and to what extent, the impact of incinerating plastics rejected from the proposed Plastics Processing Facility were included in the feedstock assumptions for the proposed incinerator.

Metal recovery

19. The level of metal recovery from the IBA is claimed by the Applicant as a benefit of the proposed development, with the ferrous metals credited with avoided emissions of around 1.8 tCO_2e/tonne and the non-ferrous metals credited with the much higher figure of 8.7 tCO_2e/tonne (as per the Applicant's Environmental Statement chapter on Climate [APP-054] Table 6: Model parameters – Project scenario).

20. As such, the Applicant's climate modelling is sensitive to variations in both the quantities of metals recovered and the proportion of those metals that are ferrous.

21. As acknowledged by Mr. Aumônier as part of ISH1, metals have a financial value, thereby incentivising metal recovery.

22. In the Applicant's Environmental Statement's chapter on Climate [APP-054] paragraph 5.4.2.13 states that the RDF production process involves the removal of ferrous metals, but no explicit reference is made to the removal of non-ferrous metals by RDF producers.

23. The quantity of metal that is available for recovery from incinerator bottom ash (IBA) depends not only on the composition of the material that is used to produce the RDF to be used as feedstock, but also on the quantity of metal that is extracted for recovery during the RDF production process.

24. In the process of converting 'raw' waste to RDF, ferrous metals can be removed using magnets and non-ferrous metals can be removed using eddy currents.

25. As set out in the accompanying extracts from enfinium's 2020 and 2021 Annual Performance Reports for their RDF-burning Ferrybridge incineration complex (summarised in the table overleaf), as a proportion of the total waste combusted, in 2020 enfinium's Ferrybridge Multifuel 1 (FM1) incinerator recovered 0.63% and Ferrybridge Multifuel 2 (FM2) recovered 0.32%, and in 2021 FM1 recovered 0.72% while FM2 recovered 0.76%.

26. The average of these two facilities over these two years was 0.61% (and 0.70% when the outlying FM2 2020 data is excluded).

27. As shown overleaf, nearly all the metal recovered from the IBA at the Ferrybridge complex was ferrous metal, i.e. the type of metal that the North Lincolnshire Applicant attributed significantly less by way of climate benefit.

TABLE 1: METALS RECOVERED AT ENFINIUM'S FERRYBRIDGE COMPLEX IN 2020 & 2021

Year	Facility	Metal extracted (tonnes)	Waste combusted (tonnes)	Ferrous recovered (tonnes)	Metal extracted as % of waste combusted	Ferrous as % of total metals recovered
2020	**FM1**	3,777	599,367	3,777	0.63%	100%
	FM2	1,938	614,578	1,819	0.32%	93.84%
2021	**FM1**	4,728	656,414	4,728	0.72%	100%
	FM2	5,063	668,941	5,063	0.76%	100%
				Average (inc. FM2 2020)	**0.61%**	**99.23%**
				Average (exc. FM2 2020)	**0.70%**	**100%**

28. As UKWIN noted at ISH1, this real world data contrasts sharply with the North Lincolnshire Applicant's anticipated level of metal extraction of 0.99% of total waste combusted (as per the Applicant's APP-054 Table 6, of which 50% was ferrous).[3]

29. As UKWIN also noted as part of ISH1, the Applicant effectively assumes (in APP-054 Table 6) that they would be extracting around 62% more metals from the post-incineration bottom ash at the proposed North Lincolnshire incinerator than the average amount of metal extracted from the bottom ash at enfinium's Ferrybridge facilities (or 41% more metals than Ferrybridge higher if FM2's relatively poor performance in 2020 is excluded from the calculations).

30. This apparent discrepancy between the Applicant's assumptions and the real world data matters, because if the amounts of ferrous and non-ferrous metals recovered from the IBA are reduced by around 38%, to reflect the Ferrybridge real world average, then – based on the Applicant's central climate change scenario as set in APP-054 Table 11 – instead of the proposed North Lincolnshire incinerator reducing GHG emissions, the Applicant's proposal would increase GHG emissions.

31. This increase in GHG emissions is shown in Table 2, overleaf.

[3] The 0.99% figure is the sum of the Applicant's ferrous and non-ferrous metal recovery figures from incinerator bottom ash (IBA), i.e. 0.55% 'Ferrous metal as a percentage of tonnage input' multiplied by their 90% rate of 'ferrous metal recovery from IBA', plus the Applicant's assumptions for non-ferrous metals, which use the same values. (0.55 x 0.9) x 2 = 0.495 x 2 = 0.99

32. Paragraph 8.1.1.2 of APP-054 claims: “There is a net carbon benefit of 6,066 tCO_2e per annum for the Project compared to the alternative baseline landfill scenario”.

33. Table 2 below sets out the impact of different metal recovery assumptions on that 6,066 tCO_2e claim by recalculating the benefit from metal recovery using the Applicant’s assumed 650,000 tonnes of waste combusted per annum and the Applicant’s claimed benefits per tonne of 1.829tCO_2e/t for the recovery of ferrous metal and 8.7tCO_2e/t for the recovery of non-ferrous metal.

TABLE 2. IMPACT OF METAL RECOVERY ASSUMPTIONS ON NET GHG IMPACTS

Scenario	Metal Recovery % of total combusted	% of which is ferrous	Reduction in benefit relative to Applicant’s central assumptions (tCO_2e)	Net GHG impacts of the Project (tCO_2e)
Applicant Central Assumptions	0.99%	50%	0	**6,066 benefit**
Sensitivity 1		100%	22,049	**15,983 disbenefit**
Sensitivity 2	0.70%	50%	9,866	**3,800 disbenefit**
Sensitivity 3		100%	25,497	**19,431 disbenefit**
Sensitivity 4	0.61%	50%	12,945	**6,879 disbenefit**
Sensitivity 5		100%	26,567	**20,501 disbenefit**

34. As can be seen from Table 2 above, reducing the quantity of metals recovered and/or increasing the proportion of recovered metals that would be ferrous, can result in the North Lincolnshire Project being expected to deliver a Net GHG disbenefit.

Managing fuel content – duties on waste suppliers

35. As part of the Applicant's response to questions posed by UKWIN and by the Examining Authority, reference was made to Regulation 12 of the Waste (England and Wales) Regulations 2011 and how, in the Applicant's understanding, the law places obligations on various parties throughout the feedstock supply chain to apply the waste hierarchy in priority order.

36. UKWIN interpreted the Applicant's claim as an attempt at making an argument for scoping out (or downplaying) the issue of the recyclability of the feedstock, and the potential adverse impacts of the proposed development on the waste hierarchy, from the consideration of the proposal.

37. In response, UKWIN noted that the Regulation 12 duty applied only 'on the transfer of waste', and so could not be relied upon to guarantee that waste was collected and processed in ways that would prevent avoidable, reusable, and/or recyclable material from being used as incinerator feedstock.

38. A copy of Regulation 12 of the Waste (England and Wales) Regulations 2011 accompanies this submission.