Written summary of oral case

D6 POST-HEARING SUBMISSION INCLUDING SUMMARY OF UKWIN'S ISH7 ORAL SUBMISSIONS

Proposed Development:
Medworth EfW CHP

Proposed Location:
Land on the Algores Way Industrial Estate to the west of Algores Way in Wisbech, Fenland, Cambridge

Applicant:
Medworth CHP Limited

Planning Inspectorate Ref:
EN010110

Registration Identification Ref:
20032985

JULY 2023

United Kingdom Without Incineration Network

INTRODUCTION

1. On the 27th of June 2023 UKWIN representatives Shlomo Dowen and Josh Dowen took part in Issue Specific Hearing 7 (ISH7).
2. UKWIN's ISH7 contribution related to Agenda Items 3 ('Waste Issues').

ISH7 AGENDA ITEM 3 (WASTE ISSUES)

3. UKWIN's oral evidence to ISH7 raised a series of matters as part of Agenda Item 3 discussions that pertain to the Applicant's REP5-020 Waste Fuel Availability Assessment ('D5 WFAA'), and these are summarised below.

Local Level Assessment

4. UKWIN was one of several interested parties (IPs) who raised concerns about the Applicant's approach to assessing the proposal's potential to result in EfW overcapacity at a local level.
5. The Applicant relies entirely on their D5 WFAA to support their claim that they have demonstrated compliance with the requirements of the emerging revised EN-3 with respect to the prohibition on EfW over-capacity at a local level.
6. UKWIN's expressed view is that there are at least two matters that mean that the Applicant has not even left the starting gate when it comes to being in a position to make such a claim.
7. Firstly, the Applicant's supposedly 'local' assessment goes well beyond the purple 2-hour drive time boundary, which the Applicant describes as a reasonable commercial limit.
8. While UKWIN is aware of waste travelling greater distances, especially when waste transfer stations are involved, assessing the national waste picture is for the national assessment to consider, and does not constitute a local assessment for the purpose of considering compliance or otherwise with either the extant EN-3 requirements or with the strengthened requirements reflected in the Government's emerging replacement EN-3.
9. Whilst emerging EN-3 (2023) does not define the term 'local', it is clear that 'local' must equate to an area no greater than a sub-regional level, otherwise the Government would have used the term 'regional'. The Applicant's WFAA relies on a supra-regional approach to evaluating the local level, taking account not only of the whole of the East of England region but also parts of the East Midlands region, in some cases going well beyond the Applicant's purple 2-hour drive time boundary. Such an approach cannot be considered to reflect the situation at a local level.

10. Secondly, the Applicant does not include meeting the residual waste reduction targets at a local level as part of their assessment, as they only attempt to assess meeting the 2027 and 2042 targets at a national level.

Combustibility of national feedstock

11. UKWIN noted how the Applicant limits itself to certain waste types for its local analysis, in recognition of the fact that some residual Household, Industrial, and Commercial (HIC) "will not be suitable for use as a fuel source at the Proposed Development e.g., rubble and soils" and to "avoid an over-estimation of available fuel".

12. In the D5 WFAA [REP5-020, at paragraph 3.2.25] the Applicant states that: "HIC waste covers a wide cross section of waste types (as illustrated in the list above), this WFAA has taken into account the fact that parts of this stream will not be suitable for use as a fuel source at the Proposed Development e.g., rubble and soils. In recognition of this, and to avoid an over-estimation of available fuel, this assessment has excluded those waste types that are not suitable for combustion at the Proposed Development".

13. And at paragraph 5.2.23 of the D5 WFAA, as part of figure of 21.4, the Applicant talks about "total mass of residual waste" and provides a figure for this, which they repeat in paragraph 5.2.39, where the Applicant refers to "total residual HIC requiring management" in 2027/28, and then similarly when the Applicant talks about waste arisings in 2042/43 at paragraph 5.2.26 the number that they use is, according to them, based on total residual waste, not just the combustible element.

14. It appears however that the Applicant failed to apply this logic to their national analysis with respect to the impact of meeting the residual waste reduction targets.

15. When asked about this as part of ISH7, Claire Brown for the Applicant was unable to respond in detail, stating that the Applicant would "like to go away and check that" and that whilst they thought that the EIP figure excluded non-combustible waste such as "mineral waste and rubble" they would "welcome the opportunity to go back to double check that and come back with a robust answer".

16. UKWIN's position regarding the element of national waste with respect to the Government's targets that should be considered as available for use as a waste fuel is set out in our D6 response to the Applicant's D5 WFAA.

17. This evidence makes clear why the Applicant is wrong to use the entire residual waste figure from the EIP, without taking account of the fact that some of this will, in the words of the Applicant, "not be suitable for use as a fuel source".

Anticipated EfW facility closures

40 year assumption for EfW closures and 3.2 million tonne closure figure

18. As part of ISH7 UKWIN pointed out how North London's Edmonton incinerator has been operating for more than 50 years, whereas in relation to the Applicant's stated view regarding EfW "capacity [that] is likely to have been lost by 2042", the D5 WFAA's Footnote 13, on electronic page 96, claims that: "As set out in Appendix C, the 10 oldest facilities will all be over 40 years old by 2042 and account for 3.2 million tonnes of existing capacity".

19. UKWIN asked what efforts the Applicant has made to verify their assumptions in this regard. For example, the Applicant was asked if they had contacted Veolia to clarify whether or not Veolia intends to shut down their South East London CHP (SELCHP) facility when they are currently investing heavily in connecting that facility to a district heating scheme, and whether or not the Applicant has approached FCC to discuss FCC's plans to close or maintain their Eastcroft EfW facility in Nottingham which is relied upon for an extensive CHP network.

20. Paul Carey for the Applicant responded that "the life [of an incinerator] is typically 40 to 45 years" and that as a general rule they "don't ask" operators "specifically about the plants for closing down facilities" but that "even if they did have such discussion" they would not disclose commercially confidential information "so it's not really something we can engage in on debate in this matter".

21. UKWIN went on to ask specifically about whether removing the 10 oldest plants would actually reduce capacity by 3.2 million tonnes as claimed in the D5 WFAA because, setting aside the question of whether these EfW facilities would in fact close, the 3.2 million tonne figure is problematic. This elicited a response from the Applicant regarding thier 3.2m figure and further clarification of their 40-year claim.

22. UKWIN noted:

    - Firstly, that the Applicant is netting off against Tolvik's *available capacity* figures, yet they are doing so by using the full permitted capacity rather than 88% of that capacity; and
    - Secondly, that the Applicant's approach subtracts around half a million tonnes of capacity from the Edmonton plant which is being replaced, while Tolvik already did their own netting off process for this by using a blank cell for the new Edmonton capacity, and so for the Applicant to remove Edmonton a second time would be a form of double counting (or 'double discounting').

23. UKWIN asked the Applicant if they agreed that the actual impact of removing these plants, based on excluding Edmonton's capacity from a second removal and using Tolvik's 88% availability rate to calculate the impact of removing the remaining 9 EfW plants in 2042 would only reduce Tolvik's forecast capacity total for England by 2.39 million tonnes.

24. Claire Brown of WSP, speaking on behalf of the Applicant, responded by saying that she found it difficult to keep up with the numbers and so would "welcome the opportunity to spend a bit of time analysing that data and looking at the detail of the points".

25. Claire Brown then made a couple of overarching statements, explaining that the Applicant "certainly haven't assumed that any plants over 40 years old would automatically close. We're simply illustrating the point that we are talking about so far in the future here. I mean, 20 years ago from today, the capacity position was very different to how it is now. 20 years ahead is likely to be the same…"

26. UKWIN's D6 comments on the Applicant's D5 WFAA sets out how future EfW facility closures, if they do occur by 2042, will still not be sufficient to result in a capacity shortfall that justifies the proposed plant, and that in any case such closures are likely to be more than offset by new capacity coming forward and/or by reductions in plastic reducing the calorific value of the residual waste, which will result in more waste being able to be processed at existing EfW plants.

Intervening years

27. In the Applicant's written summary of their Oral Submissions at ISH3 [REP4-019] it is stated that: "The Applicant confirmed that it will set out its approach to the 2035 and 2042 targets, **and the intervening years**, in more detail in the updated WFAA to be provided at Deadline 5". (**emphasis added**)

28. The importance of assessing the intervening years was highlighted in UKWIN's post-hearing submission including the Summary of UKWIN's ISH3 Oral Submissions [REP4-038] where we explained how:

    - "26. While the Applicant stated at ISH3 that if there is a need in 2042 then there is no value considering intervening years, such a notion is incompatible with the Applicant's approach of assuming that a number of plants will be decommissioned in 2042 because there would be years prior to 2042 when those plants would be operational"; and
    - "27. UKWIN does not endorse the Applicant's approach of assuming in their assessment that existing plants with permanent planning permission will be decommissioned, but the Applicant's adoption of such an approach makes it clear that it is essential that they provide

assessments of the intervening years, alongside evidence of operators' intentions to decommission currently operational EfW facilities".

29. At ISH7 UKWIN noted that, looking at the D5 WFAA [REP5-020], we were unable to find the Applicant's promised inclusion of the intervening years covering the period after 2027 and before 2042, to show the situation where waste arisings will be expected to have fallen well below the 2027 levels on the trajectory towards achieving the 2042 target but prior the level of EfW facility closures upon which the Applicant appears to rely upon for their claim that there would be enough waste in 2042 to serve as incinerator feedstock.

30. In response, the Applicant said that "the inclusion of the 2028 figure is the intervening year".

31. Unlike the Applicant's assessment, UKWIN's updated balance between waste arisings and capacity set out in our D6 response to the Applicant's D5 WFAA includes the intervening years, allowing for more detailed consideration of how the closure of EfW plants after 40-45 years of operation would not be sufficient to prevent the Medworth plant from creating or exacerbating EfW overcapacity at a local or national level.

Reduced hours

32. Mike Turner for the Applicant stated at ISH7: "With regard to the question 'is this an all or nothing facility', the answer is that we do have the ability to lower the number of hours that it runs, and we also have the ability to operate at a partial load and reduce the amount the facility takes – throughput – over a given period of time".

33. UKWIN responded to this statement, noting that we had never seen the number of operational hours at EfW facilities in the UK reduced due to a lack of feedstock.

34. Instead, UKWIN what we have seen from, for example Sheffield CHP, was how instead of reducing their operational hours operators – in this instance Veolia – increased their feedstock catchment area on the basis that the CHP scheme would suffer if they were to operate with reduced waste.

35. UKWIN has seen numerous other waste catchment planning conditions being loosened or removed altogether when waste was not available.

36. Veolia's successful 2012 variation application submitted to Sheffield City Council (12/03137/FUL) for the Sheffield CHP incinerator stated that due to the lack of local waste and the planning conditions that were then in place: "…it is predicted that there will be insufficient waste available in the future to meet the ERF's [Energy Recovery Facility's] operational requirements. Any shortfall in feedstock potentially results in a reduction in the efficiency

of the plant and its energy outputs as well as potential increases in shutdown time and the associated use of fossil fuels to maintain combustion temperature control and support the District Energy Network during such periods".[1]

37. In answering questions from Sheffield City Council as part of the application, Veolia's Planning Manager provided the response that: "In order to operate approaching its maximum efficiency the ERF must be supplied with close to maximum consented input to the facility. If the ERF operates at a lower waste throughput then less heat and power will be generated. As a consequence this will negatively impact upon the carbon footprint as the plant will need to augment the waste input with greater volumes of gas and oil (standby boilers) to compensate for the loss of heat. Therefore in order to achieve the most sustainable solution, it is essential the inputs to the plant are secured and maximised with any projected shortfall adressed well in advance".

38. The situation faced by Veolia in Sheffield is not unique, as evidenced by several other applications to vary or remove catchment area restrictions, including Veolia's October 2014 application to Brighton & Hove City Council for a "Variation of planning condition 38 of Planning Permission LW/462/CM (EIA), in order to remove the catchment boundary restriction for waste importation to the energy recovery facility" associated with their Newhaven Energy Recovery Facility, North Quay, Newhaven.

39. Similar applications have been made by other EfW operators, including for example with respect to the Rivenhall incinerator in Essex.

40. In April 2015 Gent Fairhead applied to Essex County Council asking for the removal of the restriction that had limited the feedstock catchment area and associated requirements to source around 87,500 tonnes of SRF from within the boundaries of Essex and Southend-on-Sea, and to source no more than 50% of paper and card throughput for the site from outside the east of England region.

41. According to waste trade press coverage, including the Letsrecycle article entitled "Rivenhall plant allowed to source waste outside of Essex" (a copy of which accompanies this submission), "The firm also successfully cited a number of similar waste facilities that have applied to remove geographical restrictions on appeal. Earlier this year, Drenl applied to expand its current catchment area for its proposed 120,000 tonnes-per-year gasification plant in Corby".

[1] Paragraph 5.8 of Veolia's supporting statement for Application to Vary Condition 3 of Planning Permission 10/03861/FUL

42. UKWIN asked the Medworth applicant to direct us to where they had assessed the impact of operating at reduced hours on the operation of the CHP network and with respect to other issues that might arise as a result of closures.

43. Examples of adverse impacts of closures, apart from reducing any benefits from heat and/or electricity export, include vermin and/or fly infestation, and odour issues which can occur if you store waste for long periods of time.

44. UKWIN also queried what confidence we could have that an operator would rather reduce their hours than source waste from further afield and forfeit gate fees and energy generation payments from operating the facility, especially in light of the potential – even if the draft restrictions were implemented – for waste from further away being capable of entering the facility via a transfer station to circumvent any restrictions on waste origin.

45. Paul Carey for the Applicant responded that reduced hours was one option and that processing 'partial loads' was another option. Mr Carey said that if there were reduced hours the situation would be as if there was an increase in the number of outages.

46. Later in ISH7, the Examining Authority (ExA) returned to this topic and asked if the Applicant had considered any other ways they could manage a reduced amount of waste feedstock.

47. This was an important question from the ExA, especially in light of the acknowledged uncertainties when forecasting future waste feedstock availability.

48. Mike Turner for the Applicant responded that there is the potential to reduce operational hours through increased outages and reduced loading.

49. The ExA then asked the Applicant if the CHP component would be able to operate with reduced hours and output.

50. The Applicant said it would, but was unable to provide details of where this was stated as evidence in their documents. Paul Carey for the Applicant stated that in the event of a reduced load, this could result in reduced electricity generation to allow for heat output to be maintained.

51. The ExA explained that the question about the impact on the CHP element of the proposal is linked to the claimed benefits of the scheme with respect to electricity and also CHP, and noted that in this eventuality the ExA would like the Applicant to consider (i.e. provide evidence to the Examination regarding) the impacts of reduced operation hours and/or loads because these might impact the benefits of the proposed Medworth scheme, and as such the ExA asked Mr. Carey if he would accept an action to look into the consequences in terms of electricity and CHP.

52. Paul Carey said he would be happy to do so in the form of a technical note.

53. UKWIN hopes that the Applicant's technical note will comprehensively consider all of the matters raised by the Veolia example set out above (and in documents that are being submitted at D6 to accompany UKWIN's submissions) regarding the impact of reduced feedstock on a CHP plant.

Reduced plastics not offset by reduced food waste

54. At ISH7 the Applicant made clear that their WFAA Study Area included many local authorities that are already separately collecting food waste.

55. Speaking on behalf of UKWIN, Josh Dowen noted that UKWIN provided evidence in REP2-066, UKWIN's Written Representation, on this topic (including at paragraph 129) where we noted that the reduction in the amount of plastic would increase the effective capacity (also known as 'operational capacity') of UK incinerators by between 21% and 31%, and that the reason for this range was in part because it depends on how much food waste would also be decreased.

56. Such considerations are also reflected in UKWIN's REP3-050, paragraphs 47-59, and in the evidence submitted by Rt Hon Steve Barclay [REP1-094, electronic page 4].

57. UKWIN's evidence, including Josh Dowen's input during ISH7, notes that if the Applicant's WFAA Study Area already benefits from a high level of food waste collection this means that, as the Government is proposing significant quantities of plastics removals from the residual waste stream, if this plastics removal comes to pass it would not be counteracted in the WFAA Study Area to as great a degree by reductions in food waste when compared with other areas that have yet to introduce separate food waste collections.

58. This therefore means that the impact in the WFAA Study Area would be towards the upper end of the range of potential impacts (i.e. nearer the 31% capacity increase), within this context of reduced plastics reducing calorific value and therefore increasing the effective capacity of not just the Medworth plant but other facilities in the area (e.g. Rivenhall, Great Blakenham, North Hykeham, etc.) which would then free up capacity at those competing EfW facilities, were it can be expected that they would be capable of processing more waste.

59. This in turn means that the Applicant's use of assumptions about only 88% of the permitted capability being available in the future would no longer hold true, whatever the historic levels of waste processing at these EfW facilities.

60. UKWIN further noted that it is possible that plastic removal could actually result in EfW plants (both within and beyond the WFAA Study Area) increasing their permitted capacity and going beyond their current level of

permitted capacity to deal with the issue of reduced calorific value from the reduction in plastic.

61. UKWIN noted that this is an important issue and one that UKWIN has raised in the past, emphasising how UKWIN has not been satisfied with the Applicant's response to date on the topic, and how UKWIN believes it is relevant both at local and national levels in terms of feedstock availability.

62. In response Mike Turner for the Applicant stated that the comments have been noted but that he "would point people back to the fact that the Waste Fuel Availability Assessment considers future ambitions for recycling and improvements in terms of the 2028 and 2042 targets..."

63. This response from the Applicant ignores the fact that the Applicant's 2028 and 2042 assessments were premised on only 88% of permitted capacity being available and on there being no increases in the capacity that had historically been permitted.

64. To remedy the Applicant's continued failure to adequately model this potential eventuality, UKWIN's assessment of waste fuel availability set out in our D6 response to the Applicant's D5 WFAA includes sensitivity analysis for future effective capacity to increase as the calorific value of available feedstock falls due to the removal of plastics.

APPLICATION TO VARY PLANNING PERMISSION 10/03861/FUL -

SHEFFIELD ENERGY RECOVERY FACILITY – PROPOSED VARIATION OF CONDITION 3 TO AMEND THE GEOGRAPHICAL EXTENT OF THE CATCHMENT FROM WHICH WASTE MAY BE DERIVED AND INCREASE THE TONNAGE OF WASTE DERIVED FROM THE REVISED CATCHMENT

PART OF THE INTEGRATED WASTE MANAGEMENT SERVICE FOR SHEFFIELD CITY COUNCIL

October 2012

VEOLIA
ENVIRONMENTAL
SERVICES

SUPPORTING STATEMENT

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Application to Vary Condition 3 of Planning Permission 10/03861/FUL

4.4 Bernard Road to the south of the site access forms a traffic signals junction with Cricket Inn Road. Cricket Inn Road continues west where it becomes Broad Street which in turn links with the Park Square traffic signalled gyratory in central Sheffield.

4.5 Bernard Road north of the site access forms the southern arm of a roundabout junction with Effingham Road and Foley Street. At its eastern end Effingham Road links with the A6178 Attercliffe Road.

5.0 The Proposal

5.1 This section describes the main elements of the proposed variation and identifies the areas requiring appraisal as part of the application – specifically the need for the proposed revision to the catchment along with the transport and air quality impacts.

5.2 The proposal to vary condition 3 of planning permission 10/03861/FUL will enable MSW and C&I waste to be collected from within South Yorkshire, Northern Derbyshire (geographical areas), Chesterfield, Bassetlaw, Bolsover, Ashfield, Mansfield and Newark and Sherwood administrative areas; with up to 65,000 tonnes per annum (tpa) being collected from outside the Sheffield Waste Disposal Authority area for the remaining duration of the waste contract. For clarity, given the clear issues and resultant shortfall predicted, the proposal is to allow the extended catchment to remain throughout the remaining contract period. This will ensure that adequate levels of feedstock materials are available to underpin the efficient operation of the plant and optimum delivery of heat and energy to the benefit of the City and its residents.

5.3 The proposal is to vary condition 3 to state:

"Unless otherwise agreed with the LPA:

- *Waste received at the facility shall be restricted to MSW and C&I waste collected within the following Waste Disposal Authority areas: Sheffield, Rotherham, Barnsley, Doncaster, Chesterfield, North East Derbyshire, Bolsover, Bassetlaw, Newark and Sherwood, Amber Valley, Derbyshire Dales, High Peak, Ashfield and Mansfield.*
- *Waste received at the facility from outside Sheffield Waste Disposal Authority area shall be limited to 65,000 tonnes per annum.*

5.4 This replacement wording is considered necessary to ensure that adequate quantities of residual waste can be attracted to the ERF throughout the remaining life of the waste contract, whilst continuing to fulfil the objectives of the original consent in limiting the catchment from which waste may be sourced. This will ensure that waste is derived from areas close to the ERF without being overly constrained competitively. Currently the ERF is commercially disadvantaged due to other nearby transfer, treatment and disposal sites having no catchment restrictions to limit their waste inputs. This consequently results in significant tonnages of waste being collected in Sheffield and then exported into neighbouring authority areas or beyond

5.5 On 26th September 2002 Sheffield City Council granted planning permission (Application Reference 01/10135/FUL) for a *'Replacement Energy Recovery Facility (ERF) (incinerator), office building, staff and refuse collection parking and landscaping'*. The facility has an operational waste capacity of 225,000 tonnes per annum. The ERF is an important component of the network of facilities within Sheffield for the management of waste materials arising within it as well as the neighbouring areas. However, currently no more than 50,000 tonnes of waste may be accepted by the facility from those areas identified by the planning condition from outside Sheffield. The facility receives waste and operates for around 90% of the year assuming there is a reliable input of waste thus minimising potential outages. The other 10% of the year the ERF operation is subject to maintenance downtime.

5.6 The expectation at the time planning permission was granted in 2002 was that the facility capacity would be accommodated by 195,000 tonnes of household waste arisings with the remaining 30,000 tonnes of input made up of C&I waste (trade wastes). At the time it was also predicted that household and other municipal wastes arisings would continue to grow by 2% annually to 2006 with no growth thereafter (in accordance with expectations at the time). At that time recycling and composting of Sheffield's municipal solid waste (MSW) was undertaken at a rate of only 4% and it was assumed that this would rise to 18% by March 2008.

5.7 Over recent years, particularly since the publication of the Waste Strategy England 2007 there has been ongoing change in the management of waste materials, particularly MSW which has been targeted. Such changes are welcomed and are part and parcel of the creation of sustainable waste management practices throughout the UK. In the case of Sheffield a recycling and composting rate of almost 30% was achieved over the period October 2010 to September 2011 (based upon Defra data). The Council continues to strive for Sheffield residents to further reduce household waste disposal by championing a

'Lids Down' approach to waste generation. Total MSW generation in Sheffield in the calendar year 2011 stood at some 209,010 tonnes per annum. Building on this drive to reduce waste arisings further it was announced that there would be a phased roll-out of Alternative Weekly Collections (AWC) across Sheffield. Experience elsewhere has shown that this will lead to a noticeable further reduction in waste tonnages collected from the kerbside and this is corroborated by predicted tonnage data calculated by the Waste Collection Authority. During 2011 a tonnage of 121,432 tonnes (representing approximately 58% of the total tonnage) was delivered to the ERF for treatment.

5.8 The consequence of Sheffield's success in increasing the rate at which MSW is recycled along with the reduction in waste growth has meant that there is currently a shortfall in available municipal waste feedstock for the ERF available from the City. The operating shortfall has therefore had to be increasingly made up with municipal waste from neighbouring authorities and from C&I waste arisings. The amount of municipal waste available from neighbouring authorities is expected to decrease as their waste disposal contracts evolve and new disposal facilities are provided. The magnitude of the future shortfall , especially after the development of these alternative facilities, is such that the replacement fo this deficit can no longer be sustained by importing C&I tonnage given the competitive nature of this market and restrictions placed upon the operation of the ERF through the planning permission. Consequently it is predicted that there will be insufficient waste available in the future to meet the ERF's operational requirements. Any shortfall in feedstock potentially results in a reduction in the efficiency of the plant and its energy outputs as well as potential increases in shutdown time and the associated use of fossil fuels to maintain combustion temperature control and support the District Energy Network during such periods.

5.9 The Sheffield ERF is essentially a power plant which generates electricity and provides energy in the form of heated water which is distributed within the administrative area of Sheffield. Steam is generated from the combustion process and is passed through a turbine to generate electricity for sale to the National Grid and converted to hot water for the District Energy Network and distribution to customers.

5.10 The electricity is exported to the distribution network whilst the District Energy Network provides over 140 buildings of all types and sizes with a renewable/low carbon energy source generated locally. Currently around 50km of underground pipes deliver energy (in the form of hot water) generated by recovering energy from waste to some of the city's most prestigious landmark buildings including Ponds

Forge International Sports Centre, Park Hill flats, The Lyceum Theatre, Millennium Galleries, Weston Park Hospital and Sheffield City Hall. The pipeline network extends across the city centre reaching Netherthorpe, Western Bank, the heart of the City, Park Hill and Norfolk Park.

5.11 Not only do connected buildings contribute to making Sheffield a cleaner place, businesses also avoid the Climate Change Levy. On average every year, the District Energy Network is estimated to prevent over 21,000 tonnes of CO_2 from being released across the City. This has a significant impact on preventing climate change. When a connection to the District Energy Network is made a building no longer relies upon fossil fuel to provide heating so carbon emissions are consequently reduced. If a building that used 100,000 kWh of energy per year was connected to the District Energy Network in Sheffield rather than utilising gas to supply heat and hot water it would prevent over 16 tonnes of CO_2 from being released to the atmosphere each year. It is VES's intention to continue to grow the scheme throughout the remainder of the Contract and it is considered by Sheffield City Council as an important asset to Sheffield in its ambition to further reduce its carbon footprint.

5.12 In seeking planning permission to vary the planning condition as proposed VES wish to primarily draw upon increased quantities of MSW and C&I arisings from the North Derbyshire (including Chesterfield, Bolsover, Amber Valley and Derbyshire Dales) and Nottinghamshire (including Ashfield, Mansfield, Newark and Sherwood and Bassetlaw) areas which are well connected to Sheffield. The municipal waste from Nottinghamshire is accessible through VES's existing contract with Nottinghamshire County Council and can provide the facility with much needed certainty of supply. The proposed change to condition 3 will also allow flexibility for increasing volumes of C&I waste to be drawn from the neighbouring administrative areas of Barnsley, Doncaster and Rotherham. The opportunity to attract MSW from some of the identified areas currently within the catchment (in particular Derbyshire, Barnsley, Doncaster and Rotherham) is known to be limited given the planned and recently awarded contracts that are in place to manage residual MSW arising in those collection authority areas, thereby necessitating flexibility in the areas from which additional feedstock can be derived. For example over the past twelve months Barnsley, Doncaster and Rotherham Councils' long term waste management contract has been awarded with the new facility expected to be available in Spring 2015 with output exported into West Yorkshire. Similarly, it is understood that a Derbyshire long-term waste treatment solution will be delivered by the appointed contractor. However neighbouring authorities continue to recognise the strategic importance of the Sheffield ERF to provide much needed treatment capacity over the short/ medium term and thereby avoid increasing landfill disposal costs.

5.13 Collectively historic research has estimated that around 409,000 tpa of MSW, and around 800,000 tpa of C&I waste (figures derived from the Yorkshire and Humber Plan) are generated in the administrative areas of Barnsley, Doncaster and Rotherham. Some of this waste may be suitable for the ERF. Further C&I waste (and potentially MSW) is also potentially available from the administrative areas of North East Derbyshire, Amber Valley, Bolsover, Chesterfield, Bassetlaw, Newark and Sherwood, Mansfield and Ashfield although establishing accurate tonnages from these areas is not possible due to the method of survey data collection in Nottinghamshire and Derbyshire. Taking into account recycling within those districts, the approval of the proposal to vary Condition 3 as set out above would enable the ERF to receive up to around 65,000 tpa of residual MSW/C&I waste from outside the Sheffield area, as compared to the 50,000 tpa currently permitted through the May 2011 variation of condition (time limited to May 2017) and reversion back to only 22,500 over the medium term.

5.14 VES has direct access to Nottinghamshire MSW through its long term waste management contract and also conducts trade waste collections in areas such as North Nottinghamshire, Derbyshire, Barnsley, Doncaster and Rotherham. This presents an opportunity to ensure the ERF facility capacity remains fully utilised and able to operate at its maximum efficiency thereby ensuring District Energy customers across the City are able to continue to benefit from a sustainable and reliable energy source.

6.0 Need for Development

6.1 The key driver for this proposal (and that of the previous application) is to ensure that the ERF operates at maximum capacity and efficiency. In view of the success of MSW recycling and waste minimisation initiatives within Sheffield, the facility has had to increasingly rely upon top-up C&I waste (trade waste) feedstock. However, owing to a combination of a drive to minimise wastes and recycle greater volumes, allied with the economic slowdown, along with the unrestricted and highly competitive nature of the C&I waste market in Sheffield, the amount of suitable C&I waste available to the ERF has fallen to approximately 45,000 tpa. It is anticipated that the C&I waste arisings may fall further as landfill diversion initiatives are rolled out across the City. Indeed VES proposes to develop its Tinsley site further to provide a modern MRF leading to the diversion of up to 25% of C&I inputs. This will ensure VES remain competitive in the C&I market across the City, can satisfy the requirements of customers and able provide greater rates of recycling and landfill diversion. However, the corollary is less C&I waste feedstock available from within Sheffield.

April 17, 2015
by Tom Goulding

Councils

Energy

Paper

Rivenhall plant allowed to source waste outside of Essex

A proposed merchant energy recovery centre in Essex with the capacity to treat more than a million tonnes of materials per year has been granted permission to source solid recovered fuel as well as materials for recycling from outside of the county.

Gent Fairhead & Co's planned Integrated Waste Management Facility at Rivenhall Airfield near Braintree initially aims to treat over 800,000 tonnes of commercial and industrial waste per year across a range of on-site facilities.

These include a 287,500 tonnes-per-year capacity materials recycling facility, an 85,000 tonne capacity anaerobic digestion plant, a 250,000 tonne capacity MBT plant and a 360,000 tonne capacity de-inking and paper pulping and CHP facilities. Some of the waste would pass through one or more processes within the facility.

Development of the de-inking plant would be a significant boost to the paper industry and would in particular take in office grade materials.

The CHP facility was recently one of 27 renewable energy projects awarded a 'contract for difference' by the Department of Energy & Climate Change (DECC) in the government's £315 million auction to support delivery of green infrastructure in the UK (see letsrecycle.com story).

The plant will generate power on-site for the de-inking and pulping paper facility as well as exporting it to the National Grid.

The Gent Fairhead facility would be based at Rivenhall Airfield near Braintree

Planning

Herefordshire-based Gent Fairhead was granted planning permission to develop the Braintree site by Essex county council in 2010, and was originally meant to source around 87,500 tonnes of SRF from within the boundaries of Essex and Southend-on-Sea.

In addition, no more than 50% of paper and card throughput for the site was to be sourced from outside the east of England region.

However, changes in waste planning policy since the permission was granted have seen the abolition of the catchment area, while the council found the facility suitably placed to handle waste that would otherwise have been exported for energy recovery.

The firm also successfully cited a number of similar waste facilities that have applied to remove geographical restrictions on appeal. Earlier this year, Drenl applied to expand its current catchment area for its proposed 120,000 tonnes-per-year gasification plant in Corby (see letsrecycle.com story).

In granting the variation, Essex council's director for operations, environment and economy, Andrew Cook said: "The applicant has shown through analysis of waste data that there is C&I waste suitable for use as SRF/RDF in the CHP/EfW facility arising within the East of England and surroundings areas, such that the Rivenhall facility would likely reduce the amount of waste going to landfill pushing waste management up the Waste Hierarchy in accordance with the NPPW.

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"In addition, it has been shown that currently RDF is passing through Essex to Essex ports, RDF which could potentially be intercepted/redirected (subject to contracts) to the IWMF at Rivenhall reducing waste miles and seeing the RDF generate energy within the UK rather than being exported for use on the Continent and there by contributing to achieving the aim of national self-sufficiency with respect to waste management and increased energy recovery from waste."

Changes

The council's decision to grant the planning variation is the latest development at the long-anticipated Gent Fairhead site, which has undergone a number of changes since its inception five years ago.

The planning application was originally "called in" by the then Secretary of State John Denham – who granted planning permission in 2010 subject to 63 conditions and a legal agreement (see letsrecycle.com story).

There had also been a previous planning permission for a waste management facility on the same site by the same applicant which was granted in February 2009. This expired in February 2014, however the firm confirmed there was no intention to implement it.

In August 2014, the firm applied for an extension of two years to the start date for developing the Rivenhall Integrated Waste Management Facility, as the original planning permission was due to expire in March 2015. The firm explained that the delay was due to the economic recession.

In December, the council granted Gent Fairhead a 12-month extension to the deadline, meaning construction of the facility will have to begin by March 2016 at the latest.

Braintree

Braintree district council did not object to the decision, but asked for "consideration" to be given to the need for a paper pulp facility, since a de-ink plant and mill (Palm Paper) has been developed at King's Lynn since the original 2010 application.

The county council however argued the proposed mill would not be in direct competition with King's Lynn as it is designated to deal with recycling of higher grade paper with the intention to manufacture paper pulp.

The council planning report states: "Overall, taking the above factors into account, it is considered that while a further period is justified to bring implementation of such a large and complex project, which requires significant finance and the need for other permits, it is not considered that an additional 2 years is justified."

"If the development has not been implemented by March 2016, then there would be considerable uncertainty as to whether the facility is needed or viable."

2018

According to DECC, the plant is currently scheduled to begin delivering 45MW of power between 2018 and 2019.

When contacted by *letsrecycle.com*, Gent Fairhead declined to comment on the development.

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