

United Kingdom Without Incineration Network (UKWIN)
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Hubert Tos, Wakefield Council by e-mail to: devcontrol@wakefield.gov.uk and htos@wakefield.gov.uk

Objection to the proposed pyrolysis-type incinerator on land at Wheldon Road, Castleford (Ref: 13/03470/FUL)

Dear Mr. Tos,

I am writing on behalf of the United Kingdom Without Incineration Network (UKWIN) to **object** to the above application (Ref: 13/03470/FUL).

This representation is informed by my knowledge of the national waste and planning contexts gained through my years of involvement in the handling of numerous waste planning applications throughout the country as part of my role as the National Coordinator of UKWIN.

My consultancy role, which has involved giving advice on many dozens of waste plants across the United Kingdom, has largely focussed on existing and proposed facilities that, like the proposed Wheldon Road pyrolysis plant, would be classified as a 'Waste Incineration Plant' under the Industrial Emissions Directive (2010/75/EU).

Some of the issues raised by this objection relate to the lack of, or inadequacy of, the information provided by the Applicant. For example, the Applicant does not seem to have supplied sufficient information to properly evaluate the climate change impacts (CO₂e emissions) of their proposed pyrolysis plant.

Some of these failings could potentially be resolved by a satisfactory response to a Regulation 22 request, as the absence of the information would render the Environmental Statement incomplete in relation to Environmental Impact Assessment requirements. However, as the underlying facts seem to run against the Applicant, any response from them should be read with extreme care to ensure that it is a full response that fairly represents the impacts and nature of the development, and that any adverse conclusions that can be drawn from the Regulation 22 response are taken on board by the Waste Planning Authority in the determination of this application.

Kind regards,

Shlomo Downen
National Coordinator, UKWIN

The Wheldon Road pyrolysis plant should be treated as a disposal facility

1. UKWIN's position is that the proposed application would merit refusal irrespective of whether the proposed pyrolysis plant would qualify as 'energy recovery' or would be considered 'disposal' within the waste hierarchy.
2. That said, UKWIN believes that the fact that the pyrolysis plant is in fact a disposal facility should weigh heavily against the application.
3. We draw attention, for example, to the Waste Management Plan for England, which states: "Incineration may be classed as recovery or disposal depending on the circumstances. Our Energy from Waste guide provides further analysis of this issue".¹
4. The Energy from Waste (EfW) Guide mentioned in the Waste Management Plan for England explains:

"...There are rules about when energy from waste can be counted as recovery or disposal in the context of the waste hierarchy..."²

"Historically the Waste Framework Directives have included annexes which set out lists of what are considered to be recovery or disposal operations. Each is given a number and a letter: R for recovery, D for disposal. In the current directive the classifications of particular relevance to energy from waste are:

- R1 – Use principally as a fuel or other means to generate energy
- D10 – Incineration on land"³

"All municipal waste incinerators were and are deemed as disposal activities (D10) unless and until they are shown to meet the requirements of R1. This is why the term R1 often crops up in the debate about how good an energy from waste plant might be and how it compares to other options."⁴

"For municipal solid waste, which includes all the waste collected from households, the EU has gone further by defining what it considers to be sufficient for recovery status under R1. The WFD includes a formula relating to the efficiency of the combustion plant. A municipal waste combustion plant can only be considered to be a recovery operation under R1 if it generates energy and the plant meets the efficiency thresholds calculated using the R1 formula..."⁵

"The requirement to apply the R1 formula means that lower efficiency municipal energy from waste plants are classed as disposal (D10) even if they are generating useable energy..."⁶

¹ Waste Management Plan for England (Defra, December 2013), Page 14.

² EfW Guide, Page 3.

³ EfW Guide, Paragraph 48.

⁴ EfW Guide, Paragraph 49.

⁵ EfW Guide, Paragraph 50.

⁶ EfW Guide, Paragraph 52.

"The distinction between having R1 [recovery] status or having a plant being classified as a disposal facility is important for planning purposes and in the application of the proximity principle. It is therefore important that operators strive towards demonstrating that energy from waste is a recovery operation according to the WFD [Waste Framework Directive] definitions. Interested operators should contact the relevant competent authority who, based on an application from the operator, will assess whether or not a municipal solid waste combustion facility meets or exceeds the threshold and can be considered a recovery operation."⁷

5. The disposal/recovery issue is discussed further in the February 2014 revision to the EfW Guide, which states in the new Chapter 5 ('Future Policy Direction') that:

"There are four key principles that underpin current thinking on energy from waste and which are expected to remain critical to the development of a sustainable policy into the future. These principles are outlined in the box below."⁸

"The first principle is 'Energy from waste must support the management of waste in line with the waste hierarchy'..."⁹

"Energy from waste is generally seen as recovery but in fact it can sit in a number of places within the hierarchy depending upon the feedstock and the efficiency with which it is performed."¹⁰

"The Government sees a long term role for energy from waste. To be consistent with the first principle this long term role needs to be based on energy from waste that at least constitutes recovery not disposal. This should therefore be a key consideration for both new and existing projects. To be classed as recovery, energy from waste facilities must meet the requirements set out in the waste framework directive, for example through attainment of R1 status."¹¹

"Having established the position of energy from waste within the hierarchy it becomes clearer how it must support the management of waste across the hierarchy. It must at the very least not compete with recycling, reuse and prevention..."¹²

"There is an inherent tension between the waste hierarchy and the drive for energy....This first principle addresses this tension by ensuring that the hierarchy takes precedence, reflecting its legal status. The approach in the 2011 Waste Review sets out how we should be seeking to 'get more energy out of the waste going to recovery rather than more waste in to recovery'."¹³

⁷ EfW Guide, Paragraph 54.

⁸ EfW Guide Paragraph 219.

⁹ EfW Guide Paragraph 223.

¹⁰ EfW Guide Paragraph 224.

¹¹ EfW Guide Paragraph 226.

¹² EfW Guide Paragraph 227.

¹³ EfW Guide Paragraph 228.

"[Summary of key considerations arising from the first principle:] To be consistent with the principle of energy from waste supporting waste management in line with the hierarchy, key considerations for the long term development or operation of an energy from waste solution are:

- The ability to at least qualify as recovery in the waste hierarchy
- To support and not compete with effective prevention, reuse and recycling and not be a brake on their growth
- Meeting the requirements of the hierarchy will be an important test for any policy or project aiming to increase the energy produced from waste..."¹⁴

"Recovery's place above landfill in the waste hierarchy is primarily a function of the relative carbon benefits of the two approaches. However, this is not a simple picture and factors such as the efficiency of the recovery process can affect the relative merits. Hence the adoption by the EU of the R1 formula for municipal waste in order to more clearly identify the processes that currently deliver these benefits."¹⁵

6. The approach taken by the Environment Agency (EA) regarding whether to treat a proposal as a 'Municipal Waste Incinerator' (MWI) is set out in the EA's briefing note 'Qualifying for R1 status using the R1 energy efficiency formula' (Version 2, April 2012).
7. According to Page 70 of the Revised EfW Guide: "...For Non-municipal waste incinerators designation as R1 depends on criteria set by the Competent Authority, this is the Environment Agency in England".
8. The Applicant has provided no evidence that they have been issued a Design Stage R1 classification by the Environment Agency, or that they meet the R1 Formula Threshold, or that they meet the EA criteria for non-MWI incinerators.
9. The proposed pyrolysis plant does not appear amongst the list of facilities being granted such R1 status on the EA website.¹⁶
10. As can be seen from the R1 Certificate for the Willows incinerator¹⁷ even receiving a Design Stage R1 Certificate is no guarantee that the facility would operate as R1, especially if is close to the 0.65 threshold. The R1 Assessments are "based on the information that [the applicant] provided and presented in the application" and only determines whether, based on that information, the "proposed plant is capable of having an R1 energy efficiency factor equal to or above 0.65".
11. As such, at best a design stage R1 certificate "certifies that [a proposed facility] is an R1 recovery operation under Annex II of Directive 2008/98/EC on Waste, based on the design data provided in [the applicant's] application. We [the

¹⁴ EfW Guide Paragraph 235.

¹⁵ EfW Guide Paragraph 240.

¹⁶ <http://www.environment-agency.gov.uk/business/sectors/143711.aspx>

¹⁷ 'Classification as a recovery operation using the R1 Energy Efficiency Formula – Design Stage assessment', Environment Agency, 26 April 2013. Available from: http://persona.uk.com/kings_lynn/Cory_C_docs/C77.pdf

Environment Agency] will indicate this status on our website. It will need to be validated when plant acceptance data is available and annually thereafter".

12. So, whilst the Environment Agency can never guarantee that a facility will operate as R1, i.e. as a recovery facility, the fact that the Environment Agency has not even said that the facility could potentially be R1 is quite telling.
13. Any conclusion that the proposed pyrolysis plant could theoretically meet R1 is not the same as a guarantee that the facility would actually meet R1, and if the conclusion is based on information supplied by the Applicant, then the EA's assessment can only be as reliable as this information supplied to the EA.
14. As the Environment Agency does not subject R1 Applications to public consultation there is also no opportunity for third parties to scrutinise the accuracy of the information provided.
15. The European Commission guidance on the matter¹⁸ states that: "According to Annex II WFD, the energy efficiency of the incineration facility is to be based on annual figures for energy production and energy consumption of the plant. This shall be understood as real practical performance and not as a theoretical maximized value which would not take into consideration periods of lower efficiency. The calculation therefore shall be based on regular operation (including revisions) of the whole facility. The regular operation shall also include imperfect supply of electricity and heat because of lower demand" (emphasis added).
16. As such, whilst the absence of a Design Stage R1 Certificate should make it clear that the facility should not be treated as recovery.
17. Even if such a Certificate were to materialise the Applicant should still be expected to demonstrate to the Planning Authority that the facility will meet the R1 Threshold in practice under all reasonable operating conditions.
18. In short, there is ample evidence to suspect that the proposed Wheldon Road facility would operate as a disposal operation, and there is no reliable evidence whatsoever to suggest otherwise.
19. If the proposed pyrolysis plant is treated as a disposal operation as it should be, then not only does it sit at the very bottom of the Waste Hierarchy, at the same level as landfill, but it brings Paragraph 25 of PPS10 into play.
20. Paragraph 25 of the Planning Policy Statement on Waste (PPS10) states that: "In the case of waste disposal facilities, applicants should be able to demonstrate that the envisaged facility will not undermine the waste planning strategy through prejudicing movement up the waste hierarchy".¹⁹

¹⁸ ' Guidelines on the interpretation of the R1 energy efficiency formula for incineration facilities dedicated to the processing of Municipal Solid Waste according to Annex II of Directive 2008/98/EC on waste', European Commission, 2008. Section 4.4 on Page 18.

¹⁹ Updated national waste planning policy: Planning for sustainable waste management, Page 9, Paragraph 6. Available from: <https://www.gov.uk/government/consultations/updated-national-waste-planning-policy-planning-for-sustainable-waste-management>

21. This language is strengthened in the Consultation Draft Replacement to PPS10, which states at Paragraph 6 that: "When determining planning applications, waste planning authorities should...refuse planning permission for waste disposal facilities not in line with the local plan unless the applicants can demonstrate that the facility will not undermine the local waste planning strategy through prejudicing movement up the waste hierarchy..."
22. The Applicant has not provided any evidence that the waste they intend to treat through pyrolysis could not be treated at a facility that would actually qualify as 'other recovery' on the Waste Hierarchy (including R1 energy recovery and anaerobic digestion, within the UK or elsewhere), let alone evidence adequately addressing the question of whether the feedstock could be recycled or composted.
23. The application also clearly goes against the strong wording contained within Chapter 5 of the Revised EfW Guide (quoted above), which sets out the utter disdain that the Government holds for incinerators which fall within Disposal on the Waste Hierarchy.
24. As such, the proposal should be considered to conflict with policies promoting the management of waste at the top tiers of the waste hierarchy, as well as conflicting with the Government's aim of getting the most energy out of waste, as well as the Government's key principle that "Energy from waste must support the management of waste in line with the waste hierarchy" and that to do this incineration capacity "needs to be based on energy from waste that at least constitutes recovery not disposal".

The proposed pyrolysis plant would have low and uncertain efficiency

25. The proposed Wheldon Road pyrolysis plant would use an 'Advanced Thermal Treatment' (ATT) technology that is unproven for treating mixed waste at the scale proposed.
26. When it comes to experimental technologies one should expect the unexpected. However, in this instance the Applicant fails even to expect the expected.
27. The Applicant's claims regarding the performance and supposed benefits of their proposed pyrolysis plant seem completely removed from the actual technology proposed, and is based on unsupported assumptions that have not been backed by the sort of detailed evidence one would reasonably expect to accompany such an application.
28. As the Government's EfW Guide explains, conventional waste incinerators "tend to have efficiencies in the range 18 to 27% when generating electricity only", CHP incinerators are 40%+ efficient, and cement kilns are up to 90% efficient at burning waste²⁰.

²⁰ EfW Guide Paragraphs 117, 123 and 79.

29. The Defra Waste Technology Brief on Incineration of Municipal Solid Waste notes that: "...Net electrical efficiencies (taking account of the parasitic load of the plant) are often cited up to ~27% for Incinerators recovering electricity only, although some facilities have reported exceeding this...An Incinerator will typically have a higher net electrical and thermal efficiency than a comparable ATT [Advanced Thermal Treatment] process that also generates steam for power generation or direct heating. This is mainly due to the energy required to sustain the gasification or pyrolysis process..."²¹
30. This means that for the same tonne of waste a conventional (mass burn) incinerator would tend to burn the waste more efficiently than an equivalent pyrolysis plant, such as the pyrolysis technology proposed for Wheldon Road.
31. As the Applicant has neither specified nor evidenced the efficiency of their proposal, it would not be safe to assume that their facility would have a better performance than a conventional incinerator, and it would be reasonable to assume that it would in fact have a lower efficiency than a conventional incinerator.
32. A European incinerator that is part of a District Heating Scheme would be around twice as efficient as a conventional UK domestic incinerator²², and could therefore be far more efficient than the proposed Wheldon Road facility.
33. In fact, incinerators in Germany and the Netherlands may well be around 4 times more efficient than the proposed Wheldon Road facility.
34. In relation to feedstock composition, the Applicant has not adequately explored how the composition of the feedstock they intend to use may change in the future. This could impact on the efficiency of their proposal, or as discussed later could result in the facility not working at all.
35. Appropriate sensitivity analysis is all the more important in relation to this proposal because actual performance of other advanced thermal treatment (ATT) plants have not lived up to anticipated performance (e.g. at Dargavel), and because the proposed form of treatment has not been proven effective.
36. In this respect UKWIN notes the comments made by the Scottish Environmental Protection Agency (SEPA - Scotland's equivalent to the EA) regarding the Dargavel ATT facility: "The Operator submitted a final commissioning report on 30th July 2013 which provided confirmation of the predicted efficiency of energy recovery at this site. The predicted figure of ~3% is significantly below what was expected. After >4 years of commissioning, SEPA have assessed that the level of the energy recovery likely to be achieved by the plant in its current configuration

²¹ 'Incineration of Municipal Solid Waste', February 2013, Defra. Page 13. Available from:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221036/pb13889-incineration-municipal-waste.pdf

²² " R1 incineration facilities in mainland Europe generate a greater amount of energy than UK facilities (many are connected to district heating networks and are thus able to utilise heat as well as generating electricity) " – See Climate Change Impacts of the Willows Power & Recycling Centre and Competing Alternatives (Eunomia 2013). Available from: http://www.persona.uk.com/kings_lynn/Core_docs/R/R6.pdf

is considerably lower than the levels which could be considered a 'high level of energy efficiency'".²³

37. Further to the poor performance of the Dargavel ATT facility, UKWIN draws attention to the Dargavel ATT facility's inclusion amongst the 20 poorest performers in Scotland (using data from SEPA).²⁴
38. A permit revocation notice was issued by SEPA to the operators of the Dargavel plant, Scotgen (Dumfries) Limited, in August 2013 after the facility "consistently failed to meet any reasonable expectation of environmental performance".²⁵
39. The Dargavel ATT plant experienced "a string of problems" since it opened in August 2009 and never produced any energy.²⁶
40. According to a June 2013 SEPA report: "Since installation of the new boilers there have been several serious incidents during which SEPA either used its regulatory powers to require the plant to close, or the Operator voluntarily initiated plant closure".²⁷
41. The Defra Waste Technology Brief on Advanced Thermal Treatment of Municipal Solid Waste states: "Over the operational timeline of an ATT plant the composition of waste is likely to alter and the process selected should be robust or flexible enough to treat varying calorific values and compositions of waste feedstock".²⁸
42. The concept of changing feedstock over time is also acknowledged in Defra's EfW Guide, which states that: "The composition of waste changes over time as consumption patterns, reuse, recycling and separate collection practices change".²⁹
43. The new Chapter 5 of the EfW Guide goes on to note that: "The composition of residual waste is by its nature defined by the waste that is prevented or taken out to be reused or recycled. As recycling becomes economic and practical for a wider range of waste types the composition of that which remains will inevitably change. Any long term approach to waste management needs to take into account the fact the picture is not static and be flexible to it. Changes in

²³ Scotgen (Dumfries) LTD Dargavel Energy from Waste Facility Site Status Report - V13, SEPA, 30 August 2013. Page 3. Available from:

http://www.sepa.org.uk/waste/waste_regulation/energy_from_waste/idoc.ashx?docid=94426372-0d97-4963-b985-3a070b4291e7&version=-1

²⁴ See: <http://www.robedwards.com/2010/09/exposed-scotlands-99-dirty-polluters.html> and <http://www.robedwards.com/2010/09/exposed-scotlands-99-dirty-polluters.html>

²⁵ See: <http://www.letsrecycle.com/news/latest-news/energy/sepa-revokes-scotgen-gasification-plant-license> and http://www.sepa.org.uk/about_us/news/2013/sepa_revokes_scotgen_dumfries.aspx

²⁶ See: http://www.waste-management-world.com/index/display/article-display/5232983410/articles/waste-management-world/waste-to-energy/2010/10/Scottish_Waste_to_Energy_Facility_Yet_to_Produce_any_Energy.html

²⁷ Available from: http://www.ukwin.org.uk/files/pdf/sepa_dargavel_june_2013.pdf

²⁸ 'Advanced Thermal Treatment of Municipal Solid Waste', February 2013, Defra. Page 14. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221035/pb13888-thermal-treatment-waste.pdf

²⁹ Footnote 27 on Page 21 of the EfW Guide.

composition due to enhanced recycling will alter the properties of the residual stream in ways such as calorific value and biogenic content. Energy from waste needs to ensure that its requirements do not act as a brake on such positive changes. Approaches need to be flexible enough to cope with such change or to seek out routes to further manipulate the waste stream to rebalance properties..."³⁰

44. Similarly, Defra's Waste Review 2011 states: "Waste infrastructure has a long lifetime and therefore changes in the composition and potential volumes of waste in the future cannot be ignored in the development and selection of technologies now"³¹ and: "...while energy from waste has the potential to deliver carbon and other environmental benefits over sending waste to landfill, energy recovery also produces some greenhouse gas emissions. It is important to consider the relative net carbon impact of these processes, and this will depend on the composition of feedstocks and technologies used".³²
45. The low level of efficiency implied by the proposed ATT technology and the uncertainty regarding the composition, origin and alternative fate of the waste, alongside uncertainties regarding the efficiency and reliability of the proposed pyrolysis plant, make it clear that the Applicant has failed to demonstrate that their proposal will lead to the more efficient and sustainable management of waste.
46. Indeed, it seems inevitable that the use of the proposed pyrolysis technology would actually result in lower levels of efficiency, even when compared with an equivalent conventional mass burn incinerator.
47. There are various planning policy implications of the low and uncertain level of efficiency of the proposed pyrolysis plant.
48. We note that current National Government policy is that: "Our aim is to get the most energy out of genuinely residual waste, not to get the most waste into energy recovery".³³
49. An inefficient proposal such as the one under consideration here would be inconsistent with the Government aim of getting the most energy out of waste, even if that waste were indeed 'genuinely residual' (and it has not been demonstrated that it would be).
50. This Government desire for high efficiency is reiterated in the new Waste Management Plan for England, Page 13 of which states: "Our aim is to get the most energy out of waste, not to get the most waste into energy recovery".
51. For the reasons outlined above and elsewhere, the proposal does not constitute sustainable development for the purposes of the National planning Policy Framework and relevant local policies.

³⁰ EfW Guide, Paragraphs 232 and 233.

³¹ Paragraph 230 of the Government Review of Waste Policy in England, 2011.

³² Paragraph 209 of the Government Review of Waste Policy in England, 2011.

³³ Waste Review 2011, Paragraph 22.

52. The fact that the proposed pyrolysis plant would have low and uncertain thermal efficiency, and would not constitute sustainable development, should weigh heavily against the application.
53. Any claim that the pyrolysis plant could perhaps export heat should not be given any significant weight.
54. Being 'CHP-ready' is standard practice and nothing special. Those who registered their interest indicated an interest in "receiving heat" but made no undertaking to the effect that they would be prepared to pay for the heat or towards the substantial investment in the infrastructure that would be required for the delivery of the heat to their premises.
55. Neither is there any indication regarding the heat load, i.e. it is not clear that any of those completing the form have indicated a requirement for heat throughout the year or for substantial quantities of heat at any point in time.
56. Any benefits from heat export would be higher if instead it were to be exported from a traditional mass burn incinerator.
57. The experimental nature of the ATT technology makes it unlikely that the pyrolysis plant would be reliable enough to encourage anyone to invest in a heating scheme, which typically costs around £1m/km to install³⁴, with heat / temperature loss of around 1°C/km³⁵.
58. Government policy on inefficient incinerators, such as the one proposed for Weldon Road, is described in the Government's EfW Guide, for example:
 "To maintain the energy output from less residual waste resource we will need to...continue the drive towards better, higher-efficiency energy from waste solutions".³⁶
 "Recovery's place above landfill in the waste hierarchy is primarily a function of the relative carbon benefits of the two approaches. However, this is not a simple picture and factors such as the efficiency of the recovery process can affect the relative merits".³⁷
 "...due consideration needs to be given to whether, by favouring energy from waste over landfill, we are truly reducing the environmental impacts of the management of residual waste and when recovering the energy, we are maximising the energy benefits".³⁸
 "We should seek to drive waste towards those plants and processes which deliver the most efficient conversion of waste to energy".³⁹
 "... maintaining primacy of energy from waste over landfill relates to the efficiency of the plant..."⁴⁰

³⁴ EfW Guide, Paragraph 137.

³⁵ http://chp.decc.gov.uk/cms/assets/pdf/chp_focus/utilicom-case-study.pdf

³⁶ EfW Guide, Page 2.

³⁷ EfW Guide, Paragraph 240.

³⁸ EfW Guide, Paragraph 241.

³⁹ EfW Guide, Paragraph 255.

The pyrolysis plant might not work at all, or it might not remain operational

59. The Applicant makes various claims regarding the supposed benefits of their proposal. Even if one were to accept that those benefits would occur if the facility were to be operational (and this is not accepted by UKWIN), then the fact remains that many of the claimed benefits are premised on the pyrolysis plant actually becoming and remaining fully operational.
60. Even if the Applicant could make the facility work under very specific conditions (e.g. in relation to feedstock composition), it is possible that it would not be technically, legally or financially viable to sustain operations under such conditions for the intended lifetime of the proposed pyrolysis plant.
61. For example, it is unknown how sensitive the facility would be to varying feedstock composition. If the facility would only work by burning recyclable material then law and practice that discourage the incineration of recyclable material could starve the facility of the feedstock it would require to remain operational, irrespective of the general waste arisings scenario.
62. In a Letsrecycle.com article entitled "Isle of Wight seeks to reduce use of 'unreliable' gasifier", published on 22nd June 2011, we read how: "In the documents [produced for the Isle of Wight Council's Cabinet⁴¹], the local authority said that the plant forms a key element of the council's waste disposal strategy and it is 'largely reliant' on the performance of the plant. However, it claims that the [ATT] plant has proved 'unreliable' and states that it is currently 'failing to protect against the effects on increases in landfill tax and LATS (Landfill Allowance Trading Scheme) penalties'...Waste Gas Technology [the plant operator] was forced to temporarily close the plant in May 2010, and again in October, after breaching emissions limits..."
63. Uncertainty regarding the reliability, viability, robustness and flexibility of the pyrolysis technology proposed should therefore reduce the weight given to claimed benefits, such as job creation as well as waste processing / energy generation capability and availability.
64. The proposed facility is an experiment. This means that if the experiment is a failure then the Applicant could well shut it down, or could even be forced to shut it down by the Environment Agency (as happened with Dargavel). Even if the experiment shows that pyrolysis could work for a feedstock that the operator could obtain, it is possible that the facility would not be economically viable.
65. The fact that the facility might close down, or never open, is relevant to more than just the weight that should be given to any claimed benefits of the proposal.
66. Such uncertainty also raises the prospect that the facility may be abandoned and become an unused eyesore. Indeed, it is possible that the facility could shut

⁴⁰ EfW Guide, Paragraph 294.

⁴¹ The Cabinet Report is available in full from: <http://www.iwight.com/council/committees/cabinet/14-9-10/PAPER%20D.pdf> and includes the following: "The operation of this facility has proved to be unreliable, limiting its effectiveness...It is imperative that a more effective waste disposal mechanism is determined to help meet current aspirations for a more environmentally sound approach to waste management"

down even before the technology were properly tested, if one of the parties involved went bankrupt or faced financial difficulties.

67. It is certainly not uncommon for companies involved in ATT to go into liquidation, administration and bankruptcy. Some examples are provided below:

67.1. *Compact Power Holdings (2008-2011):*

"Description of business: Development and exploitation of Company's proprietary technology for the processing of waste by advanced thermal conversion using the processes of pyrolysis, gasification and high temperature oxidation."⁴²

"...Compact Power Holdings has entered liquidation...Compact Power Holdings was established in 1992 with the aim of becoming a leading business...However, in 2008, a number of companies within the group were placed into administration. This resulted in the loss of investors' cash totalling almost £20m."⁴³

67.2. *BCB Environmental (August 2010):*

"Waste disposal firm BCB Environmental has entered administration just three months after it pledged to appeal a decision blocking its proposal to build a £24 million waste-to-energy gasification facility in Tockwith."⁴⁴

67.3. *Bioflame (2011):*

"Bioflame has developed its own patented partial-gasification technology – an advanced thermal treatment process that converts a range of biomass waste fuel stocks into a gas by using the heat of partial combustion to liberate hydrocarbons."⁴⁵

"A Pickering-based waste-to-energy business has gone into liquidation with the loss of 12 jobs. Bioflame ceased trading after its funding was pulled...It secured the investment in December 2010 to complete the commercialisation of the company's technology, attract project funding, and accelerate the rollout of projects. But the funder pulled out after investing £3 million, believing the business would require more than the further £1.5 million agreed to reach its goals."⁴⁶

⁴² <http://www.londonstockexchange.com/exchange/prices-and-markets/stocks/new-and-recent-issues/new-recent-issue-details.html?issueId=560>

⁴³ <http://www.insidermedia.com/insider/south-west/46919->

⁴⁴ <http://www.letsrecycle.com/news/latest-news/waste-management/bcb-environmental-enters-administration>

⁴⁵ <http://www.theengineer.co.uk/news/esb-novusmodus-to-invest-up-to-45m-in-bioflame/1006435.article>

⁴⁶ http://www.gazetteherald.co.uk/news/9288356.Pickering_firm_goes_into_liquidation/

67.4. *Ascot Environmental (2012):*

"A firm that struck a deal to build multiple renewable energy projects across the country has said it is to file for administration. Ascot Environmental carried out civil engineering and gasification work on waste treatment plants at numerous sites including at Bristol and Essex, working with waste disposal giant SITA and property management company Cyclamax Holdings."⁴⁷

"Scotgen (Dumfries) Ltd are required to maintain adequate financial provision to operate the process in line with the requirements of their PPC Permit (this includes clearing the site of waste should the plant close). At the time of permitting, financial provision was in place by means of a parent company guarantee. However, on 18th May 2012, Scotgen's former parent company (Ascot Environmental Ltd) went into administration and the previously established arrangements for financial provision fell..."⁴⁸

"The waste-to-energy plant [Scotgen's Dargavel gasification plant] opened in August, 2009, but has been bedevilled with problems. To date, it has failed to produce energy. It previously had a contract with part of a group of companies called Waste2Energy, which went into administration and left a £600,000 trail of debt in the Dumfries area."⁴⁹

68. Given the circumstances highlighted above, if the planning application were to be granted planning permission, then it would be prudent to impose a planning condition requiring the facility to be taken down if the experiment fails to work (e.g. to take effect after 6 months where no waste is processed at the pyrolysis plant, with the clock starting to tick 18 months from the date when construction commences), along with arrangements for the setting aside of an associated bond to ensure decommissioning and restoration work is actually carried out in accordance with the planning condition.
69. Paragraph 144 of the NPPF states that: "When determining planning applications, local planning authorities should: ...provide for restoration and aftercare at the earliest opportunity to be carried out to high environmental standards, through the application of appropriate conditions, where necessary. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances;..."
70. The precarious nature of the development outlined above makes it clear that if permission were to be granted then 'exceptional circumstances' would exist that would warrant the imposition of bonds or other financial guarantees to ensure restoration would be carried out.

⁴⁷ <http://www.mrw.co.uk/news/waste-to-energy-firm-to-file-for-administration/8630500.article>

⁴⁸ http://www.sepa.org.uk/waste/waste_regulation/energy_from_waste/idoc.ashx?docid=4095f149-2024-4d8e-bade-ca7059abe6e6&version=-1

⁴⁹ <http://www.dailyrecord.co.uk/news/local-news/ownership-scotgen-firm-changes-hands-2409918>

The pyrolysis plant performs poorly with respect to renewable energy

71. Whilst it is acknowledged that the Government considers energy generated from the biodegradable fraction of waste to be 'renewable' (meaning the energy from the plant would be considered 'partially renewable' by the Government), UKWIN believes that the facility proposed for Wheldon Road would actually hamper efforts to generate renewable energy from any biodegradable feedstock.
72. Phasing out the incineration of recyclable and compostable materials is a current focus of emerging EU policy. The May 2012 Resolution on a Resource Efficient Europe, for example, calls for the "phasing-out, by the end of this decade, of incineration of recyclable and compostable waste".⁵⁰
73. Because of the low and uncertain efficiency of the plant, the facility will produce less renewable energy from the same waste than treating it at more efficient facilities in the UK and abroad, meaning it would result in a net loss of renewable energy production.
74. As stated before, the composition of the feedstock could change over time.
75. According to Paragraph 91 of the EfW Guide: "...Source-segregated collections or higher recycling would change the relative proportions of different waste streams and thus the composition of the residual stream going to energy from waste. Similarly, C&I waste has a different composition. The composition of waste matters because it affects many of the overall properties of the waste including both the calorific value (CV) and the biogenic content [and thus the 'renewable' energy content] of the fuel".
76. The food waste element of the feedstock would be expected to be removed for Anaerobic Digestion. As such, it would not be available for incineration. It is unclear what biodegradable waste the pyrolysis facility could use that would not be more appropriately dealt with through reduction, re-use, recycling, composting or Anaerobic Digestion, in line with Government policy.
77. As we read at Paragraph 263 of the EfW Guide: "Unless it can be clearly demonstrated there is an overall environmental benefit in doing so...biogenic material that might otherwise have been separated and more beneficially processed in a different way (e.g. through AD) should not be left in or added to the RDF."
78. As the proposal would be inefficient and would not process much biomass it would provide less than a drop in the ocean when it comes to renewable energy generation; and if one considers that the facility would divert waste from more efficient ways of producing renewable energy, the Wheldon Road facility would actually have a negative net impact on renewable energy generation.

⁵⁰ Action 33, Resolution on a Resource-efficient Europe. European Parliament resolution of 24 May 2012 on a resource-efficient Europe (2011/2068(INI)). Available from: [http://www.europarl.europa.eu/RegData/seance_pleniere/textes_adoptes/provisoire/2012/05-24/0223/P7_TA-PROV\(2012\)0223_EN.pdf](http://www.europarl.europa.eu/RegData/seance_pleniere/textes_adoptes/provisoire/2012/05-24/0223/P7_TA-PROV(2012)0223_EN.pdf)

The proposed facility would not be 'low carbon'

79. The 2012 UK Bioenergy Strategy advises, at Paragraph 1.9, that: "...it is essential that bioenergy which contributes to our short and medium term targets, such as the 2020 renewable energy targets, also puts the UK in a good place for longer term decarbonisation".
80. With low and uncertain efficiency, the proposed pyrolysis plant would not put the UK in a good place for longer term decarbonisation.
81. The proposed development would not be low carbon, and would in fact hamper efforts for longer term decarbonisation.
82. According to the Glossary definition of 'Renewable and low carbon energy', as set out in the NPPF: "...Low carbon technologies are those that can help reduce emissions (compared to conventional use of fossil fuels)".
83. This definition, requiring consideration of the actual performance of the plant, appeared in the draft NPPF, and was retained in the final NPPF following direct representations regarding the definition from various consultees, including UKWIN.
84. It is quite sensible for the Government to require that a development, such as that proposed for Wheldon Road, that have a higher carbon intensity than conventional fossil fuels should fall outside of the definition of 'low carbon'.
85. The Applicant has failed to demonstrate that their proposal would produce energy with a carbon intensity lower than the conventional use of fossil fuels.
86. The NPPF does not explain how one compares a proposal against the "conventional use of fossil fuels" to meet the NPPF definition of "low carbon", however, Footnote 29 of the EfW Guide states that: "A gas fired power station (Combined Cycle Gas Turbine - CCGT) is a reasonable comparator as this is the most likely technology if you wanted to build a new power station today...".
87. The Department for Energy and Climate Change (DECC) stated in September 2013 that: "the marginal emissions factor in 2010 reflects that of a typical CCGT plant (0.356 kgCO₂e/kWh before taking into account distribution and transmission losses)".⁵¹
88. As explained below, DECC's approach has more recently moved away from CCGT to even lower marginal emissions figures that reflect the anticipated decarbonisation of the electricity supply.
89. In order to determine whether or not a proposal would be likely to help or hinder emissions from electricity generation one needs to look at the marginal carbon intensity of the future fuel mix.

⁵¹ Department for Energy and Climate Change's September 2013 Valuation of energy use and greenhouse gas (GHG) emissions, Section 2.3.1 on Page 7. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/254082/2013_background_appraisal_guidance.pdf

90. This is further and repeatedly confirmed in the EfW Guide, e.g. at Footnote 29, which states: "...When conducting more detailed assessments the energy offset should be calculated in line with DECC guidance using the appropriate marginal energy factor <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>", and at Paragraph 247: "Predictions for the marginal electricity mix [This is the energy mix that Government Green Book guidance says should be used for such comparisons <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>] show significant decarbonisation within the potential lifetime of existing energy from waste plants".
91. The Applicant presumably expects their facility to run to 2040 and beyond, as the facility could be expected to have a design life of around 25 years (and presumably the Applicant seeks planning permission for a permanent development).
92. Over this 25+ year period the UK's electricity fuel mix will increasingly move away from the conventional use of fossil fuels. As such, even if a facility has a carbon intensity lower than that of the current conventional use of fossil fuels, if that facility is displacing electricity with an even lower carbon intensity then that facility could still be significantly hampering efforts to decarbonise the electricity supply.
93. The Government's Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal, Table 1 of Tables 1-20: supporting the toolkit and the guidance⁵² sets out the assumptions to be adopted, on a year by year basis, regarding the emission factors of marginal electricity generating sources. The marginal sources are those that are assumed to be displaced by new sources of electricity coming on line.
94. Examples of relevant generation-based long run marginal emission factors are as follows:

2014	0.3184 kgCO ₂ eq/KWh
2017	0.2920 kgCO ₂ eq/KWh
2041	0.0416 kgCO ₂ eq/KWh
Average 2017 - 2041	0.1430 kgCO ₂ eq/KWh

95. The Applicant has not assessed their proposal against the carbon-based modelling approach developed by Defra⁵³, which was used to inform Chapter 5 of the EfW Guide.
96. Put simply, the proposed Wheldon Road facility would be disastrous in terms of climate change, does not meet the NPPF definition of 'low carbon', and does not

⁵² Available from: <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

⁵³ Available from: <http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=19019&FromSearch=Y&Publisher=1&SearchText=wr1910&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>

in any way benefit from Government policies that seek to promote the decarbonisation of the electricity supply.

97. Pyrolysis at the proposed Wheldon Road facility would prevent that same feedstock from being incinerated at a more efficient facility.

98. Thus, the proposed Wheldon Road facility would increase the need for fossil fuel combustion for energy generation, because more fossil fuel would need to be burnt to compensate for the relative inefficiencies associated with the proposed pyrolysis plant, and this would give rise to even more carbon emissions.

99. Assuming electricity will be generated by the pyrolysis plant at all, it would be offsetting the future marginal electricity mix.

100. In line with DECC guidelines, it is this anticipated marginal electricity mix that should be the basis for any relevant assessment of the climate change impact of the facility.

101. To quote DECC:

"The marginal electricity emissions factor is intended to reflect the actual change in emissions that would result from a small but sustained change in electricity consumption."

"The marginal plant(s) refers to what energy source(s) we expect to increase or decrease when there are marginal but sustained changes to energy demand or supply. The marginal emissions factor allows us to conduct policy analysis relative to a baseline that includes current and planned policies and in which sufficient plant is built to meet projected demand...The calculations are based on the assumption that until very recently a Combined Cycle Gas Turbine (CCGT) plant was the long-run marginal electricity generation plant on the basis that it was both relatively cheap and quick to build...However, going forward there are reasons to think that this may not remain the case, particularly given the policies in place to incentivise low carbon electricity generation".⁵⁴

102. Any claim by the Applicant that the facility would be low carbon should not weigh in favour of the application because the Applicant has failed to demonstrate that the facility would be low carbon as defined by the National Planning Policy Framework (NPPF).

103. The fact that the Applicant has failed to demonstrate that their proposal would not hamper efforts to move towards a low carbon economy and to decarbonise the energy supply should weigh heavily against the application, because hampering such decarbonisation efforts would run contrary to the policy aims of the NPPF and the UK Bioenergy Strategy.

⁵⁴ Department for Energy and Climate Change's September 2013 Valuation of energy use and greenhouse gas (GHG) emissions, Section 2.3.1 on Page 7. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/254082/2013_background_appraisal_guidance.pdf

104. The most relevant and authoritative policy document in relation to low carbon seems to be the NPPF and, as has already been stated, the proposed incinerator has not been demonstrated to fall within the NPPF definition of low carbon.

105. Whilst the Planning Practice Guidance for Renewable and Low Carbon Energy makes it clear that a facility with unacceptable environmental and amenity impacts should not be approved simply because it produces renewable and low carbon energy, it does not support the notion that all Energy from Waste facilities are low carbon.

106. In this respect UKWIN calls attention to Paragraph 114 of the EfW Guide, which states: "... the overall environmental benefits will depend not only on the thermal treatment but the energy conversion technology to which it is coupled and how much of the energy it produces is used running the clean-up and other processes. The important factor in assessing any plant is therefore the overall efficiency net of any energy required to run the process".

107. UKWIN also calls attention to the following excerpts from Chapter 5 of the EfW Guide, published February 2014:

"In considering waste composition the environmental requirements should be given as much weight as the technical plant requirements. Having a higher calorie fuel may make sense from an energy production viewpoint but if it is due to a higher plastic content creating fossil emissions it may be environmentally detrimental".⁵⁵

"In line with the second principle [that 'energy from waste should seek to reduce or mitigate the environmental impacts of waste management and then seek to maximise the benefits of energy generation'] due consideration needs to be given to whether, by favouring energy from waste over landfill, we are truly reducing the environmental impacts of the management of residual waste and when recovering the energy, we are maximising the energy benefits".⁵⁶

"...energy from waste could perform worse than landfill in carbon term...As energy decarbonises, increasing efficiency alone is no longer sufficient to guarantee maintaining the primacy of energy from waste over landfill in carbon terms... ...Predictions for the marginal electricity mix [Footnote 70: This is the energy mix that Government Green Book guidance says should be used for such comparisons <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>] show significant decarbonisation within the potential lifetime of existing energy from waste plants. There is a risk that such plants may only continue to be better than landfill in carbon terms when using high biogenic content waste streams, potentially greater than that currently found in unsorted mixed municipal waste."⁵⁷

⁵⁵ EfW Guide, Paragraph 234.

⁵⁶ EfW Guide, Paragraph 241.

⁵⁷ EfW Guide, Paragraphs 245 – 247.

"Fossil based residual wastes, e.g. plastics and synthetic rubbers that cannot be recycled, do not decompose in the same way as biogenic material in landfill. For these waste streams conventional energy from waste will almost always deliver a negative carbon balance compared to landfill...Clearly it would not be consistent with the [Government's key underlying] principles just to mix the fossil waste stream with higher biogenic content material prior to combustion, as doing so would just increase the environmental impacts of burning the latter."⁵⁸

"Energy from waste developments and operations need to give proper consideration to the principles set out above and recognise some of the limitations they imply..."⁵⁹

108. Paragraph 209 of the Waste Review 2011 states: "... while energy from waste has the potential to deliver carbon and other environmental benefits over sending waste to landfill, energy recovery also produces some greenhouse gas emissions. It is important to consider the relative net carbon impact of these processes, and this will depend on the composition of feedstocks and [on the] technologies used".
109. If one compares the proposed Wheldon Road facility, which might struggle to be 16% efficient, with existing facilities in UK and abroad (which are 40%+ efficient), then it becomes clear how a Continental incineration facility could be expected to displace far more electricity and result in far lower GHG emissions than the facility proposed for Wheldon Road.
110. There are numerous examples of facilities with spare capacity to use the feedstock, including existing incineration and co-incineration facilities in the UK, such as cement kilns. This is the current situation.
111. In the future there is expected to be even more capacity to process waste and/or RDF, including capacity that will become available, e.g. at facilities that are currently under construction or in commissioning.
112. Considering the location of Castleford, in such relatively close proximity to the existing 800,000 tpa Ferrybridge facility and to the existing 250,000 tpa Vine Street incinerator in Huddersfield and the existing 225,000 CHP incinerator in Sheffield, the existing 60,000 tpa Newlincs incinerator in North East Lincolnshire, the 80,000 tpa of WID-compliant biomass capacity (at the Sandsfield Heat & Power and Yatts waste wood facilities), and to the emerging facilities currently under construction, including: 600,000 tpa Ferrybridge incinerator (SSE & Wheelabrator), 180,000 tpa Cross Green, Leeds incinerator (Veolia), 265,000 tpa MBT facility at Bolton Road (Shanks & SSE), the 175,000 tpa South Kirkby Autoclave, and E.ON's 200,000 tpa Blackburn Meadows WID Compliant Biomass facility, as well as consented capacity of AmeyCespa's 320,000 tpa incinerator at the Allerton Waste Recovery Park, Biffa's 300,000 tpa Skelton Grange incinerator

⁵⁸ EfW Guide, Paragraphs 270 and 271.

⁵⁹ EfW Guide, Paragraph 298.

in Leeds, Earth Tech Skanska's 190,000 tpa Bowling Back Lane incinerator in Bradford, the 160,000 tpa Biogen Power Gasification facility at Ripley Road (Bradford), Biogen Power's 120,000 tpa Kirk Sandal Gasification facility near Doncaster, the 115,000 tpa Gasification facility in Cleveland Street (Hull), Energos / Singleton Birch's 100,000 tpa Melton Ross Gasification facility (North Lincolnshire), and the 100,000 tpa Thermeco Pyrolysis facility at Gibson Lane (South Melton), there can be expected to be in the region of between 4 and 5 million tonnes of residual waste treatment capacity within easy reach of the proposed Wheldon Road facility, without even taking co-incineration or RDF export into account.

113. This represented far more residual waste capacity than genuinely residual waste available to provide feedstock for these facilities. As such it is clear that the proposed Wheldon Road facility is simply not required to manage genuinely residual waste either locally or regionally.

114. In fact, as explained earlier in this objection, by incinerating the feedstock at Wheldon Road the Applicant would actually be preventing this material from being incinerated at a more efficient facility, either at home or abroad. Thus, the proposed facility would actually increase the need for fossil fuel combustion for energy generation because more fossil fuel would need to be burnt to compensate for the relative inefficiencies associated with the proposed Wheldon Road facility, and this would give rise to even more carbon emissions.

115. As set out above, the Environment Agency maintains a list of incineration facilities that qualify for R1 status at the design stage, and the Wheldon Road facility does not appear as an entry on this list⁶⁰.

116. For a sensible look at the environmental impacts of exporting waste compared to treating it domestically see the Eunomia report entitled "Climate Change Impacts of the Willows Power & Recycling Centre and Competing Alternatives".⁶¹

Lack of need

117. The EfW Guide states, at Paragraph 215, that: "We are on track to meet our landfill diversion targets for 2020, and sufficient treatment infrastructure is being delivered to achieve this".

118. As the UK is already on course to meet both our landfill diversion target and our renewable energy target without the proposed Wheldon Road facility, this proposal could not possibly support the achievement of these targets.

119. Residual waste in the UK is falling and domestic residual waste treatment capacity is rising, as consented facilities are built and as facilities currently under construction come on-line.

⁶⁰ <http://www.environment-agency.gov.uk/business/sectors/143711.aspx>

⁶¹ Available from: http://www.persona.uk.com/kings_lynn/Core_docs/R/R6.pdf

120. Many existing domestic waste incinerators are not operating to full capacity. One reason for this is the economics of RDF export, that mean export can offer a cheaper alternative to domestic treatment.
121. This suggests that the export of RDF does not equate to a shortfall, either in existing or future domestic incineration capacity. Indeed, there are clear signs that additional incineration capacity can be expected to be made available in Mainland Europe to handle exports from the UK.
122. For example, Denmark's environment minister, Ida Auken is quoted as saying: "...The goal [of Denmark's recently-released national waste strategy] is definitely to recycle more and incinerate less. That is a paradigm shift for Denmark, because so far, we have been the world champions of waste incineration..."⁶²
123. As the demand for feedstock to maintain incinerators in Denmark will not be met by waste from that country, Denmark can be expected to import more RDF from the UK to meet the demand for heat to serve their domestic heating schemes.
124. This is resonant with statements made by William Neale, member of cabinet for European Environment Commissioner Janez Potočnik with responsibility for waste, who is quoted as saying: "...I think the problem...is often that people get locked into their capital investments. So, for example, because some countries have massively invested in incinerators, they're locked into that way of doing things. Take the south of Italy, where they have huge stockpiles of waste which need to be dealt with. Though the easiest solution might be to build some incinerators to burn it, it's not optimal as it would lock them into that solution for the foreseeable future and the value of that energy in Italy might be less than it would be, say, in Scandinavia, where it would be a valuable source of heat".⁶³
125. There is no justification for the proposed Wheldon Road facility, not least because the existence of such a facility would compete with reduction, reuse, recycling, composting and anaerobic digestion, and indeed with incineration at more efficient facilities where the demand for heat and the infrastructure to deliver that heat is already in place.
126. The Resource Magazine article quoted above goes on to explain: "The concept of differing countries being better or worse suited to energy from waste is an interesting one. Indeed, Neale says that the EC [European Commission] accepts countries moving refuse across borders to be used in a better-suited country rather than run the risk of them entrenching themselves in an inappropriate technology: 'There has to be a certain amount of acceptance of movement of waste for it to be dealt with in the most appropriate and efficient way...'"

⁶² <http://cphpost.dk/national/environment-minister-calls-increased-recycling-and-waste-sorting>

⁶³ Resourcefully efficient. Resource Magazine, November 2012. Available from: http://www.resource.uk.com/article/Sustainability/Resourcefully_efficient-2449

127. Eunomia Research & Consulting is currently working with the European Commission's Directorate-General for the Environment on technical analysis that will support the Commission's decisions on the future revisions to the targets contained in the Landfill Directive, the Packaging and Packaging Waste Directive and the revised Waste Framework Directive. Eunomia developed the Strategic Environmental Assessment of Defra's Waste Management Plan for England, and Eunomia has worked with over 100 local authorities in the UK, supporting them in the delivery of better waste management services for lower cost.
128. According to Eunomia's Head of Energy Adam Baddeley: "The Netherlands and Germany built significant incineration capacity in response to the EU Landfill Directive targets. They have since increased their recycling rates, leaving them with spare capacity that they are eager to use to treat waste from other Member States, including the UK. A smart solution...which means we don't need to build expensive infrastructure here, and very much in the spirit of EU free trade. A large number of overseas incinerators that make use of the heat as well as the power they generate have an insurmountable efficiency advantage over UK facilities, which tend not to use the heat...I can see no respectable argument, whether based on environmental, energy security or economic considerations, for building further incineration capacity in the UK".⁶⁴
129. Paragraph 28 of the EfW Guide refers to Eunomia's Residual Waste Infrastructure Report.
130. According to Issue 5 of the high-level version of the Eunomia report, released in November 2013 and referred to, "Modelling of our central scenario suggests...a situation of potential overcapacity in the UK in 2017/18 of around 3.0 million tonnes, and rising to an overcapacity of 10.1 million tonnes in 2020/21".
131. Eunomia expect residual waste treatment overcapacity in the Yorkshire and Humber region by 2016/17 in their 'high infrastructure' and 'central' scenarios, and by 2017/18 in their 'low' scenario.
132. It seems that the Applicant does not make any provision for falls in residual waste arisings in the future, e.g. as a result of successful waste minimisation efforts alongside increased re-use, recycling and composting.
133. To quote Paragraph 25 of the EfW Guide: "...it is expected the proportion being reused and recycled will increase..."
134. And to quote the last paragraph of the Waste Management Plan for England (December 2013): "All of the actions outlined above will affect future waste streams. We anticipate that waste prevention measures will ensure that the progress that has been made in decoupling growth and waste arisings will continue...We anticipate that the measures outlined in this plan will achieve continued growth in recycling of key materials such as glass, metals, plastics and paper".

⁶⁴ Exports: a waste of energy?, 9 October 2012 Available from: <http://www.isonomia.co.uk/?p=1307>

135. Paragraph 3.9 of the UK Bioenergy Strategy (DECC, April 2012) states that: "The amount of residual waste from municipal and commercial sources is expected to decline gradually to 2030 as policies to encourage better environmental and energy outcomes succeed (i.e. waste prevention, reuse and recycle)..."
136. The Central Forecast of the Government's Forecasting 2020 report (as revised in February 2013, published October 2013 - keeping the same figures for arisings as in previous versions) indicates that C&I arisings in England are expected to go from the 47.9 million tonnes in the 2009 survey down to around 42 million in 2015, and then up to 43.9 million in 2020.
137. The significance of the Government's Forecasting 2020 paper is underscored by the multiple referents to it in the Government's December 2013 Waste Management Plan for England, with specific attention given to its Central Forecast.
138. The proposed Wheldon Road facility is simply not needed for the management of waste in and around Castleford.

Other comments

139. UKWIN notes the relevance of taking account of the plume visibility within the context of any assessment of the visual impact of the proposed facility.
140. Although EN-1 is not entirely relevant to this 'non-IPC' application, UKWIN notes the Government's guidance regarding plume visibility contained within EN-1, as follows:
- Paragraph 5.9.2: "Among the features of energy infrastructure which are common to a number of different technologies, cooling towers and exhaust stacks and their plumes have the most obvious impact on landscape and visual amenity for thermal combustion generating stations" and
- Paragraph 5.9.20: "The IPC should ensure applicants have taken into account the landscape and visual impacts of visible plumes from chimney stacks and/or the cooling assembly..."
141. Paragraph 29 of PPS10 states that: "In considering planning applications for waste management facilities waste planning authorities should consider the likely impact on the local environment and on amenity (see Annex E)".
142. It should be noted that this need to take account of local environmental and amenity impacts is taken forward in the Government's Consultation Draft replacement for PPS10 as follows: "When determining planning applications, waste planning authorities should...consider the likely impact on the local environment and on amenity against the criteria set out in Appendix B..."⁶⁵
143. The Appendix B referred to is equivalent to the existing PPS10 Annex E.

⁶⁵ Updated national waste planning policy: Planning for sustainable waste management, Page 9, Paragraph 6.