ID-12

Bilsthorpe UKWIN Interested Party Hearing Statement

Introduction

The United Kingdom Without Incineration Network (UKWIN) was founded in March 2007 to promote sustainable waste management. As part of fulfilling our aims and objects, UKWIN works to help facilitate access to environmental information, and to promote public participation in environmental decision-making, and access to environmental justice. Since its inception, UKWIN has worked with more than 100 member groups, and has regularly taken part in consultations run by various Government bodies.

I, Shlomo Dowen, am UKWIN's National Coordinator. I hold a Bachelor of Science degree from the Open University and a post-graduate Advanced Diploma in Environmental Decision Making, also from the Open University.

I give evidence to this inquiry alongside my son and business partner Josh Dowen, who is UKWIN's Associate Coordinator. Joshua graduated from Sheffield Hallam University in 2009 with a Bachelor of Science degree with Honours in Information Technology.

UKWIN has authorised the two of us to speak at this inquiry on behalf of the organisation. The evidence which we have prepared and which we provide for this inquiry is true, and I confirm that the opinions expressed are our true and professional opinions.

The Bilsthorpe facility, as proposed, is, for the purposes of determining this planning application, a form of disposal that goes against the waste management hierarchy. Thus, the proposal conflicts with policies and policy statements promoting the management of waste at the top tiers of the Waste Hierarchy, including those contained within the National Planning Policy for Waste; Planning Practice Guidance on Waste; Waste Management Plan for England; Energy from Waste Guide; Waste Review 2011; Nottinghamshire and Nottingham Waste Core Strategy; and the Newark & Sherwood District Council Core Strategy and Allocations and Development Management DPD.

UKWIN's Interested Party Hearing Statement is structured to match the following matters considered to be of likely interest to the Secretary of State:

- Whether the facility would comprise a waste disposal or recovery operation;
- Whether the scheme would accord with the development plan for the area; and
- The extent to which the scheme would be consistent with the National Planning Policy for Waste and the National Waste Management Plan for England

This Statement will also rebut a few of the mistaken allegations made by the Applicant, as well as outlining UKWIN's position with regard to how any benefits claimed by the Applicant should be weighed in the planning balance, including implications of not proceeding with the scheme.

Whether the facility would comprise a waste disposal or recovery operation

One of the main matters is whether the facility would comprise a waste disposal or recovery operation. Simply put, having considered all of the information before this Inquiry, UKWIN's case remains that, for the purposes of this inquiry, the facility should be considered to comprise a waste disposal operation.

Listing the relevant UKWIN submissions chronologically, UKWIN's case on this matter is set out as follows:

- From Paragraphs 60 to 80 of our Part 1 Objection [CD40];
- From Paragraphs 1 to 46 of our Part 2 Objection [CD40];
- Paragraphs 4, 5 and 6 of our Part 3 Objection [CD40];
- Paragraphs 5 to 87 of First Interested Party Submission [IP2];
- Paragraphs 17 to 39 of our comments on the Lock Street decision [IP12];
- Paragraph 95 and Paragraphs 120 to 122 and 136 to 169 of our Rebuttal Submission [IP22];
- Our Technical Note on the Applicant's R1 Calculations [IP23]; and
- Paragraphs 3 to 34 of our Counter-rebuttal [IP26].

There is no dispute that if the facility worked as the Applicant suggests, then it would generate some energy, and there is no dispute that this alone would not qualify the proposal as 'Other Recovery' within the Waste Hierarchy.

The only method to fall within the definition of 'Other Recovery' being advanced by the Applicant is on the basis of the facility meeting or exceeding the R1 Formula threshold of 0.65.

As set out in IP12, the Lock Street Inspector's decision found that because the Applicant had failed to convince him that the proposed incinerator would operate as R1 (Recovery) it was therefore necessary to treat the proposed facility on the basis that it would be Disposal for planning policy purposes.

As such, the question for the Secretary of State, for this application as for all other incinerator applications, is whether either:

a. the applicant has clearly demonstrated that their proposal is more likely than not to meet or exceed the R1 Threshold in real-world operation, or alternatively
b. the applicant has not clearly demonstrated that their proposal is more likely than not to meet or exceed the R1 Threshold in real-world operation, or alternatively.

UKWIN has provided evidence and arguments that the latter conclusion should be adopted by the Secretary of State.

This is a matter of planning judgement, and not a tick-box exercise. As the default position is that all incineration facilities are disposal unless and until a particular facility has been shown to be otherwise, then the burden of proof rests with the applicant.

Focussing on the case as set out in IP2, let's start at National Planning Policy for Waste [CD53], in Appendix A ('The Waste Hierarchy') which is on Page 8. Here we see that footnote 4 reads as follows:

- *[CD53 Footnote 4]* The full definition of each level of the waste hierarchy is set out in Article 3 of the revised Waste Framework Directive (2008/98/EC) [CD48]; see also the Waste Management Plan for England [CD58]

Then if we turn to the Waste Management Plan for England (Defra, December 2013) [CD58], at Page 14 it is stated: "Incineration may be classed as recovery or disposal depending on the circumstances. Our Energy from Waste guide provides further analysis of this issue", with the footnote referring to Paragraphs 45 to 52 of the EfW Guide [CD60].

Turning to the EfW Guide [CD60], on Page 23, Paragraph 48 and 49 read as follows:

- [CD60 Para 48] 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

- [CD 60 Para 49] What this means is that where waste is burnt as a fuel to generate energy it can potentially be considered a recovery operation (R1) but where the purpose of incineration is to get rid of waste, it is considered D10 and hence disposal. All municipal waste incinerators were and are deemed as disposal activities (D10) unless and until they are shown to meet the requirements of R1.

On Page 24 of the EfW Guide, Paragraph 52 notes that:

- [CD60 Para 52] lower efficiency municipal energy from waste plants are classed as disposal (D10) even if they are generating useable energy...

Turning now to IP2 Appendix A: Excerpts from Guidelines on the R1 energy efficiency formula in Annex II of the Waste Framework Directive, we read on the second and fourth paragraphs on Page 7 that:

- [IP2 Appendix A, Para 2] Municipal waste is classified in chapter 20 of Commission Decision 2000/532/EC on the list of waste. Usually, MSWI [Municipal Solid Waste Incinerators] are installations permitted for the incineration of 'mixed municipal

waste'. Mixed municipal waste is defined in Art 3(3) WID as waste from households as well as commercial, industrial and institutional waste, which because of its nature and composition is similar to waste from households, excluding separately collected fractions of recyclable waste.

- [IP 2 Appendix A, Para 3] In practice, the waste input into a MSWI is made of different mixed and heterogeneous fractions which are blended before feeding the hopper in order to optimize the combustion process.

Moving onto the start of Section 4.4 on Page 18 of the R1 guidelines, we read:

- [IP2 Appendix A, Page 18] According to Annex II WFD [the Waste Framework Directive, i.e. CD48], 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.

- [IP2 Appendix A, Page 18] 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.

So, having established that the proposal would not operate as R1 in practice unless it actually exceeded the 0.65 threshold based on real practical performance, let us look at the question of how one determines whether a facility can be considered R1 for determination of planning applications given that the 'real world practical performance' is not yet known at that point.

If we turn to IP2 Appendix B, we have the October 2013 Appeal Court Judgement Skrytek v Secretary of State for Communities and Local Government, et al, which related to a gasification facility in Derby.

This Judgment rejected the argument of Kirsten Berry for the Applicant that a gasification facility can be considered 'recovery' without meeting the definition of 'recovery' set out in the Waste Framework Directive.

Paragraph 13 of this Judgment states:

- [IP2, Paragraph 13]. Miss Berry's evidence was broadly to the effect that a 'recovery process' in domestic law can be more broadly defined than under the [Waste Framework] Directive, and is not constrained by the R1 formula. It included the statement (in paragraph 3.5.21 of her proof of evidence) that Regulation 12 of the 2011 [Waste] Regulations does "not limit 'other recovery' to incineration plant (sic) that meet the R1 formula". It was common ground before the judge and this court that her approach on this was wrong in law...

To paraphrase, Paragraph 22 of the Skrytek Judgment states:

- "[IP2, Para 22.] The judge [in the court of first instance]...also concluded that...'if he [the Planning Inspector] had made such a finding...that the proposal fell into the category of "other recovery"...then it could only have been on the basis that he had made clear findings that it was more likely than not that the proposed waste treatment facility would begin to export heat once up and running, and thus that it was more likely than not that it would achieve the R1 threshold at that point...'"

The Court of Appeal did not dispute this conclusion.

The argument put forward by the Applicant in relation to the Skrytek judgment at Paragraphs 2.10 to 2.14 of APP-SMO-7 is not persuasive. Whatever circumstances the High Court found were to be the case in relation to Derby, the High Court ruling confirmed the general principle that one cannot treat a proposed facility as recovery unless a clear finding is made that the proposal is more likely than not to operate as recovery in practice. UKWIN maintains that this general principle, which was not overturned or disagreed with by the Appeals Court, and that the Skrytek judgment remains relevant to the present case.

The Skrytek case established the principle that a facility can be treated as Recovery for the purposes of interpreting planning policy only if there are "clear findings" that the facility would be "more likely than not" to "achieve the R1 threshold" during its operation.

Even without the Skrytek case, it would remain true that it would not be reasonable for the Secretary of State to treat a proposed facility as recovery without such a finding. To allow facilities that could be likely to operate as disposal to benefit from planning policies that promote recovery would undermine the waste hierarchy.

It should be noted that the Skrytek judgment did not turn on the question of whether or not an R1 certificate had been issued by the Environment Agency for the Derby gasification plant, and did not treat an R1 Certificate as determinative of the matter for planning policy purposes.

Next we turn to the Applicant's failure to clearly show that their proposed facility would be more likely than not to operate as R1 in practice.

Contrary to the suggestion at Paragraph 2.3 of APP-SMO-7, UKWIN has never claimed the design stage certificate was a panacea. In fact UKWIN's case has consistently been otherwise. The point we made, again and again, is that if one could not even meet the relatively low-bar of self-certificated R1 design stage status, then that was noteworthy.

Turning to Page 12 of UKWIN's first interested party submission [IP2], Paragraph 38 reiterates the point made by UKWIN at Paragraph 75 of our Part 1 Objection [CD40], as follows:

- "[IP2 Para 38] Even if a Design Stage R1 certificate from the EA were to be obtained prior to the proposed facility entering the commissioning phase this would not ensure that the facility would operate as recovery in practice. A reasonable approach would therefore be to also expect the applicant to demonstrate that the facility, as proposed, would be very likely to be R1-compliant under all reasonable operational conditions, i.e. that operating consistently at R1 over the lifetime of the facility is beyond reasonable doubt.

- [IP2 Para 39] Factors relevant to such a consideration would include, for example:
    - the extent to which the facility is anticipated to exceed the 0.65 threshold;
    - the track record of actual performance at similar facilities using similar technology configurations to treat similar feedstock;
    - the extent of any sensitivity testing of assumptions used; and
    - the confidence in the calculations and associated underlying assumptions (taking into account whether the appropriate level of detailed process design information is available, whether all relevant information has been made available for scrutiny, and whether scrutiny has identified any unresolved issues or concerns).

UKWIN's evidence shows that the Bilsthorpe proposal performs poorly against these factors.

As set out in Section 3 of IP9, a Design Stage certificate cannot guarantee that a facility would operate as R1 in practice, and there are reasonable grounds to doubt the ability of the facility proposed for Bilsthorpe to operate as R1.

The Applicant has failed to demonstrate that the facility as proposed would in fact be likely to operate as R1 in practice. Their existing evidence does not adequately address the experimental nature of their proposed technology and technology configuration, the poor track record of advanced thermal treatment (ATT), or the high energy demands associated with plasma gasification. The Applicant's evidence fails to provide the level of sensitivity analysis and supporting evidence that should be expected to support their R1 calculations.

UKWIN is not saying, as is suggested at Paragraph 2.1 of APP-SMO-7, that the Secretary of State should adopt a different approach for new technologies than should be applied to conventional incineration. For all forms of incineration, UKWIN expects the Secretary of State to only give a proposal the benefit of policies associated with recovery in circumstances where it has been clearly demonstrated that that facility would be likely to operate as recovery.

In all cases, the decision-maker needs to make a judgement about whether they are confident that a given facility is more likely than not to operate as recovery. The level of

confidence depends on various factors, and UKWIN has already provided some examples of factors that could reduce confidence in either experimental or conventional technologies.

For example, even for a conventional incinerator, in circumstances where the R1 Threshold is only just exceeded based on a single design point, then a Planning Officer, Planning Inspector or the Secretary of State could reasonably conclude that, as they were not confident that the proposed facility would operate at that design point, it would be reasonable for them to treat a conventional incinerator as a disposal operation, even in circumstances where that proposal had secured a design stage R1 certificate.

As we can see from IP31, design stage R1 status is a form of self-certification. It does not represent a high bar of achievement, and neither does it demonstrate independent validation. Indeed, contrary to the suggestion at APP-SMO-7 Paragraph 2.2, the EA does not take a view on the technical merits of the plant. The issue that the Applicant raises in APP-SMO-7 that to question the Applicant's R1 claims would represent duplication with the Environment Agency goes against what the Environment Agency themselves say, which is that they are not looking at whether the facility is more likely than not to operate as recovery and are not performing a critical assessment of the Applicant's design data and chosen design point. This matter is therefore left to the planning decision-maker.

Turning to IP26, UKWIN's counter-rebuttal, from Page 1, Paragraphs 4 to 16 read as follows:

- [IP26 Para 4] The recent issuance of a design stage certificate for the Bilsthorpe facility is not a game-changer.

- [IP26 Para 5] The Applicant is wrong, at APP-SMO-6 Paragraph 2.3, to suggest that "the EA has now independently verified the R1 calculation...the situation is similar to Battlefield". Whilst the EA is independent, the Agency do not in fact verify the assumptions used for the R1 calculation and so the Bilsthorpe situation remains dissimilar to Battlefield.

(We will return to Battlefield later in this statement)

- [IP26 Para 6] The Environment Agency clearly state, in APP-SMO-6A, that they are relying entirely on figures supplied by the Applicant. The EA is not assessing whether or not the design data supplied to them is accurate, or even credible.

- [IP26 Para 7] As the EA makes clear, they have narrowed their scope to a consideration only of a facility operating exactly as the Applicant's R1 figures suggest, and make no claims regarding the EA's view about whether or not the facility is likely to operate as predicted.

- [IP26 Para 8] The EA letter explains how their assessment of the "...R1 application is based on design data. Based on this design data we have concluded that the plant is capable of having an R1 energy efficiency factor equal to or above 0.65". Note the EA's use of the word 'capable', rather than 'likely' and their use of the term "based on this design data" rather than "based on our own expectation of how the facility will actually operate in practice".

- [IP26 Para 9] This is equivalent to an accountant who has been asked to review the predicted profit stated in a financial forecast simply telling their client: "Yes, if the income and expenditure are as you predict, then your business is capable of achieving the anticipated profit".

- [IP26 Para 10] If in this figurative scenario the accountant concluded that even if their client's income and expenditure figures were correct they would fail to make a profit then this would be significant. However, the accountant simply concluding that if one assumed that the client's assumptions were correct then their projected profit would be correct hardly amounts to a ringing endorsement of the actual commercial viability of the business. This is especially the case where businesses operate in a novel commercial arena, where the actual ability to generate the anticipated income is highly uncertain.

- [IP26 Para 11] In the same way, the EA's letter is hardly a ringing endorsement of the Applicant's R1 claims as the EA does not assess the reasonableness or sensitivity of the Applicant's underlying assumptions that form the basis of the prediction. In that sense, it is not correct for the Applicant to state at Paragraph 2.5 of APP-SMO-6 that "...the existence of an R1 design stage certificate should [in this instance] reassure the Inspector that the BEC can be treated as a Recovery Facility [for planning policy purposes]".

- [IP26 Para 12] The EA has not said that they have made a clear finding that the proposed Bilsthorpe gasification facility would be more likely than not to operate above the R1 threshold, and the R1/D10 status of the proposal for planning purpose remains a matter for the Secretary of State to determine in line with the Skrytek judgment.

- [IP26 Para 13] The EA letter provided by the Applicant [APP-SMO-6A] makes clear how the EA's preliminary conclusion "is based on the data that you [the Applicant] submitted", and how this data "will need to be validated when plant acceptance data is available".

- [IP26 Para 14] The EA further notes that the 'plant acceptance data' has yet to be supplied to them, and they remind the Applicant "to submit an updated R1 application when plant acceptance data is available".

- [IP26 Para 15] The EA makes clear that they have not, as claimed by the Applicant, independently validated the figures supplied to them by the Applicant.

To confirm this position, we turn to IP31. This includes an e-mail from the EA dated the 26th of October 2015 which states that: "...We issued a letter to Peel Environmental Management UK Limited on 14th October. The letter is not any form of authorisation or guarantee but is our assessment that the plant is capable of achieving R1 recovery status based on the design data submitted by Peel Environmental Management UK Limited..." (emphasis added)

We responded immediately to clarify what this meant, and they confirmed that being a design-certificate is no guarantee that the facility would operate as R1 in practice, and stated that design-stage R1 status is, quote:

- [IP31] "...awarded on the basis of data submitted. We take note of the origin of the data submitted but do not carry out independent validation of it. However, if the operator wishes to maintain his R1 status, plant operational data will need to confirm the design efficiency factor once a plant is operational."

In effect, the Environment Agency are confirming that design-stage R1 status is little more than what someone going for a loan would describe as 'self-certification', i.e an assessment which relies wholly on the accuracy of the information provided by the applicant without independent validation.

The Environment Agency also make it clear that, to maintain R1 status the proposal would need to actually operate above the 0.65 threshold and that they provides no authorisation or guarantee that this will occur.

UKWIN has provided evidence which provides general reasons to be sceptical of plasma gasification and advanced treatment, such as the poor performance of the Dargaval plant and the EA's findings that such technology was not considered "available" due to it being such an experimental technology. We also provide relevant statements from the Applicant's own consultants.

Turning to IP2, Page 42. Paragraph 178 quotes from a 2014 Fichtner report, which was checked by the same Stephen Othen who worked on the Bilsthorpe planning application, that, amongst other things, stated that:

- [IP2 Para 178] "...the use of...[plasma arc gasification] syngas to generate electricity in a gas engine has not been demonstrated at commercial scale. In addition, the

power consumption is very high, due to the use of high temperature and the need to make oxygen for the process. The high energy consumption makes plasma gasification less energy efficient...Plasma gasification...has a much higher electrical parasitic load... the European BAT reference document for EfW refers entirely to plasma gasification for destruction of gaseous CFCs and other ozone depleting substances [but not for the purpose of treating general municipal or C&I waste]... there are no reference plants recovering energy from pre-processed [or] processed municipal waste in Europe... We are aware that a larger plasma gasification plant is being constructed in Teesside, but we note that this is still under construction and so cannot be considered to be proven...No commercial plants combusting syngas within an engine...High energy consumption..."

In APP-SMO-1, the Applicant acknowledges that all of these things were said, but tries to explain them away on the basis that they were being paid by a different client at the time for a different purpose.

UKWIN responded to the Applicant's comments at Paragraphs 120 - 122 of our rebuttal submission [IP22]. At Page 20 of this document we read as follows:

- [IP22 Para 120] In relation to the contrived arguments made at APP-SMO-1 Paragraphs 5.2.16 - 5.2.19, UKWIN notes that, however embarrassing it might be for the Applicant in relation to the Bilsthorpe proposal, it is clear from the source document that one of the reasons Fichtner did not consider Plasma Gasification appropriate for the local authority was because of doubts regarding the ability of the technology to reliably perform well in practice.

- [IP22 Para 121] Despite what is said in APP-SMO-1, this view is relevant to the Bilsthorpe case as the Bilsthorpe Applicant is asking for the planning decision maker to rely on claims regarding the facility's carbon, R1 and energy generation performance and for these claims to be accurate it similarly requires that the technology perform reliably well in practice.

- [IP22 Para 122] Just as Fichtner highlighted a need for caution for Surrey in relation to the performance of Plasma Gasification, UKWIN is urging caution for the Inspector and Secretary of State in relation to relying upon claims made by the Applicant in relation to the performance of Plasma Gasification for Bilsthorpe, including claimed benefits that rely upon the facility working as anticipated.

Furthermore, UKWIN has provided evidence that specifically calls into question the ability of the proposal to meet 0.65 in practice based on the information provided by the Applicant in the Third Regulation 22 submission and in APP-SMO-6.

Turning to our Rebuttal Submission [IP22], at Page 28 we read from Paragraph 164 to 169 as follows:

- [IP22 Para 164] For the reasons set out in the Technical Note [IP23] which accompanies this submission, UKWIN is not confident regarding the Applicant's attempt at sensitivity analysis, particularly in relation to the impact of changes in feedstock composition on plant efficiency.

- [IP22 Para 165] As the Technical Note concludes: "If a calorific value of 11.8Mj/kg is substituted in the spreadsheet (Sheet 1, Peel R1 Scenario 7) for 10.5Mj/kg, it will be seen that R1 falls to 0.6493, i.e. below the 0.65 R1 Threshold, demonstrating the extent to which the Applicant's claim for Recovery status of the proposed installation is a fragile one", and: "It is important to note that UKWIN's calculations make clear that a small reduction in generator efficiency results in a rapid fall in R1".

- [IP22 Para 166] UKWIN would like to add that the Technical Note focuses on the implications of the changing calorific value of the feedstock. There are a number of additional factors that could also be responsible for the proposal operating below the 0.65 R1 Threshold.

- [IP22 Para 167] For example, the R1 factor could be brought below 0.65 if more flares occur than are anticipated by the Applicant, or if there were more than six start-ups in a year.

- [IP22 Para 168] The Applicants' R1 calculations appear to assume that all the gas passes to the generating sets and that none is ever flared. Any use of flaring at all will divert energy and will impact on the R1 calculation, yet the Applicant does not appear to have accounted for the occurrence of flaring in their R1 submission.

- [IP22 Para 169] Given the experimental nature of the technology and the poor (in some cases catastrophic) track record of other Advanced Thermal Treatment plants, it seems likely that the number of flares and start-ups will be significantly higher than is assumed by the Applicant, and that this would bring the R1 Factor further below 0.65.

Returning to Battlefield, and to the comments made in APP-SMO-7, UKWIN notes that, in contrast to the Bilsthorpe Applicant, the applicant at Battlefield, despite having been granted a design stage R1 certificate, was so concerned to show that their facility would operate as R1 in practice, that they actually modified their technology configuration to add Dry Flue Gas Treatment and a second Economiser, at great expense. This was done to increase the level of confidence for the Planning Inspector that the proposed would operate as Recovery in practice.

Paragraphs 2.6 - 2.9 of APP-SMO-7 completely miss UKWIN's simple point about Battlefield. The quotes included by the Applicant at 2.7 and 2.8 show how the Battlefield Inspector followed exactly the process on behalf of which UKWIN has been advocating, that is to say, the Inspector did not simply say: "Oh. The EA issued a design stage R1 certificate, so I need not consider the evidence put forward by local objectors"; instead, the Inspector made a planning judgement about the likelihood of the facility operating as R1 in practice, based on the evidence that was before that inquiry and the specific circumstances regarding the nature of that specific proposal.

In the case of Battlefield, the Inspector did not have the benefit of a clear statement from the EA confirming that their R1 letter was not a guarantee, authorisation or independent validation of the Battlefield Applicant's claims.

The Bilsthorpe proposal should also be judged on its own specific circumstances. In this Inquiry, unlike at Battlefield, we do benefit from EA confirmation that their R1 letter was not a guarantee, authorisation or independent validation of the Bilsthorpe Applicant's claims.

The weight to be given to the R1 certificate for Bilsthorpe is less than that of Battlefield, because of the clarification from the EA, and because of the more serious doubts regarding the Bilsthorpe proposal's ability to achieve R1 in practice.

The planning balance differs between Battlefield and Bilsthorpe, and UKWIN's evidence has shown that in Bilsthorpe the proposal falls clearly on the side of 'disposal'.

Whether the scheme would accord with the development plan for the area

Another of the main matters is whether the scheme would accord with the development plan for the area. Simply put, UKWIN's position is that the proposal fails to accord with an objective reading of the development plan when taken as a whole, due to the number of serious policy conflicts and the lack of weight that should be given to the Applicant's claimed benefits.

UKWIN has provided evidence to support our arguments that the proposal does not accord with the Nottinghamshire Waste Core Strategy [CD62], for example as a focus for UKWIN's 24th February 2015 Interested Party Submission and accompanying appendices [IP2]. UKWIN's IP9 Main Issues submission lists a number of places where our evidence on these conflicts can be found, and further evidence was subsequently submitted.

IP2 Paras 57 - 61 and 64 - 87, and Appendix I, contain evidence regarding the proposal's conflicts with **Policy WCS3** ('Future waste management provision') including **WCS3(b) and/or WCS3(c)**. This evidence is supplemented by UKWIN's Eunomia submission [IP18], and UKWIN's Rebuttal Submission [IP22] Paragraphs 29 - 89.

IP2 Paras 105 and 147 (and indeed IP1) contain evidence regarding the proposal's conflicts with **Policy WCS4** ('Broad locations for waste treatment facilities').

IP2 Para 105, and the whole of UKWIN's 10th June 2015 Supplementary Representation on the Restoration Plan [IP8], contain evidence regarding the proposal's conflicts with **Policy WCS7** ('General site criteria'), as does UKWIN's IP22 Rebuttal Submission, Paragraphs 6 - 16.

IP2 Paras 95 - 104 contain evidence regarding the proposal's failure to benefit from **Policy WCS9** ('New and emerging technologies'). More recently, UKWIN has made a number of submissions, including IP12, IP22, IP26, and our Updated Carbon Intensity Comparison dated 30th October 2015 [IP27], and these further evidence how the proposal would not will lead to the more efficient and sustainable management of waste, and thus should the proposal does not benefit from **WCS9**.

IP2 Paras 112 - 114 (and Paras 132 - 143 of UKWIN's August 2014 Part 2 Objection [CD40]) contain evidence regarding the proposal's failure to benefit from **Policy WCS11** ('Sustainable transport').

And IP2 Paras 62 - 63 and 112 - 114 (and Paras 132 - 143 of UKWIN's August 2014 Part 2 Objection [CD40]) contain evidence regarding the proposal's conflicts with Policy **WCS12(b)** ('Managing non-local waste'), and this evidence is supplemented in IP22.

Additionally, in IP2, Paras 110 and 115 UKWIN argues that the proposal goes against **Policy WCS13** ('Protecting and enhancing our environment') for the reasons, and based on the evidence, given by RAGE and the Nottinghamshire Wildlife Trust.

UKWIN has provided evidence to support our arguments that the proposal does not accord with **saved policy W3.1** ('Information in support of waste planning applications') of the Nottinghamshire and Nottingham Waste Local Plan of January 2002 [CD61], for example at IP2, Paras 125, 143, and 148 - 165.

In relation to local planning policy conflicts, Paragraphs 17 to 23 of our IP22 Rebuttal Submission include discussion of a number of legal judgments that supports giving weight to pre-NPPF policies and challenges the Applicant's arguments that were based on the Batsworthy judgment.

UKWIN has provided evidence to support our arguments that the proposal does not accord with the Newark and Sherwood Core Strategy of March 2011 [CD63], for example at IP2, Paras 105, 109, 110, 125, and 147 UKWIN sets out how the proposal conflicts with **Core Policies 6** ('Shaping our employment profile'), **9** ('Sustainable design'), **13** ('Landscape character') and **14** ('Historic environment'), **Spatial Policy 3** ('Rural areas'), and **ShAP 1** ('Sherwood Area and Sherwood Forest Regional Park') based on the evidence given by RAGE (IP1) and others.

UKWIN has provided evidence to support our arguments that the proposal does not accord with the Newark and Sherwood Allocations and Development Management DPD dated July 2013 [CD64], for example at IP2, Paras 105, 109, and 111 UKWIN sets out how the proposal conflicts with **ADMDPD Policy DM5** ('Design'), including **DM5(4)** ('Local Distinctiveness and Character'), **DM5**(7) ('Ecology'), **DM8** ('Development in the open countryside') and **DM9** ('Protecting and enhancing the historic environment') based on the evidence given by RAGE (IP1) and others.

UKWIN also provides evidence of the proposal's conflict with Newark & Sherwood District **Core Policy 10** ('Climate Change') because the proposed gasification facility would not be "efficient in the consumption of resources".

Arguments and evidence in relation to the lack of need for the proposed gasification facility, and how this lack of need should weigh against the application, have been provided in UKWIN's submissions to the Waste Planning Authority, particularly Paragraphs 118-174 of UKWIN's Part 1 Objection, Paragraphs 47-131 of UKWIN's Part 2 Objection, Sections 1-13 of UKWIN's Part 4 Objection, and Paragraphs 3-32 of UKWIN's Part 5 Objection [CD40]. Further information on lack of need is provided by UKWIN in our rebuttal submission [IP22].

The extent to which the scheme would be consistent with the National Planning Policy for Waste and the National Waste Management Plan for England

Another of the main matters for consideration at this inquiry is the extent to which the scheme would be consistent with the National Planning Policy for Waste and the National Waste Management Plan for England.

As set out at Paragraphs 24 to 28 of IP22, the Applicant oversimplifies the Government's position with regard to energy from waste, and the Applicant's submissions repeatedly overlook the caveats and concerns associated with the Government's nuanced position on energy from waste.

It is not appropriate to quote the Government talking about the potential for some energy from waste plant to have certain benefits without acknowledging that the Bilsthorpe proposal may fail to live up to this potential. Similarly, it is not appropriate to take statements about relatively efficient energy recovery facilities and apply these to an inefficient disposal facility.

UKWIN has provided evidence to support our arguments that the scheme would be inconsistent with both the National Planning Policy for Waste [CD53] and the National Waste Management Plan for England [CD58], for example, as UKWIN set out in Section 5 of our Main Issues Summary [IP22], because the proposal is for a disposal facility, the scheme would conflict with policies that promote the Waste Hierarchy, such as NPPW [CD53] Paras 1, 3 and 7, and National Waste Management Plan for England [CD58] Pages 1, 11 - 14 and 34, and Paras 9 and 46 and Annex 1 of the Planning Practice Guidance on Waste [CD54].

For example, NPPW Paragraph 7 states that: "When determining waste planning applications, waste planning authorities should...expect applicants to demonstrate that waste disposal facilities not in line with the Local Plan, will not undermine the objectives of the Local Plan through prejudicing movement up the waste hierarchy", and Paragraph 046 of the Planning Practice Guidance on Waste makes clear 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...".

As set out in our evidence, the Applicant has not demonstrated that they would be diverting waste from landfill and acknowledge that some of their waste may be diverted from R1 incinerators. Any incineration facility operating as disposal (D10) that diverts material from an incinerator that operates as recovery (R1), including diverting Refuse Derived Fuel (RDF) from R1-compliant facilities on the European Continent, would be prejudicing movement of waste up the waste hierarchy. Indeed, such facilities would, in fact, be driving waste management down the waste hierarchy.

And because the proposal is for an inefficient process, e.g. as set out in IP2 Paras 88 - 104 (and IP2 Appendices C, D and E, and elsewhere in UKWIN's evidence), the scheme would conflict with Government's aim of getting the most energy out of that waste, as set out on Page 13 of the National Waste Management Plan for England [CD58].

As noted at Para 10 of IP1, Paragraph 1 of the NPPW refers to the role of planning in delivering the country's waste ambitions through delivery of resource efficiency. Paragraph 1 of NPPW sets out the ambitions of the National Waste Management Plan for England to "work towards a more sustainable and efficient approach to resource use and management", and within this context sets out the role of planning in the delivery of "resource efficiency".

UKWIN has provided evidence that the proposal does not get the most energy out of waste, and this evidence also demonstrates how the proposed development fails to deliver the resource efficiency expected by the NPPW.

IP22 includes UKWIN's comments on the Applicant's APP-SMO-1 response to UKWIN's Main Submission from Paragraphs 107 to 122, Pages 18 to 20. Whilst the Applicant has slightly increased the claimed net efficiency of their facility, from 18.78% to 20.44%, UKWIN explained at Paragraph 110 of our Rebuttal Submission [IP22] that this "would still be less efficient than the similarly-sized Battlefield (conventional) incineration plant, which has an estimated net efficiency of 22.3% [IP2 Appendix D]".

As noted at IP2 Para 106, adverse impacts in relation to ecology and wildlife mean that the proposal goes against NPPW Para 7, 3rd bullet and the associated Appendix B, Locational Criterion D. And as noted at IP2 Para 116, adverse impacts in relation to traffic mean that the proposal goes against NPPW Para 7, 3rd bullet and the associated Appendix B, Locational Criteria F, G and J.

As noted at IP2 Para 108, adverse impacts in relation to heritage assets and local amenity means the proposal goes against NPPW Para 7, 3rd bullet and the associated Appendix B, Locational Criteria C and E, as well as the Planning Practice Guidance on Waste ('Conserving and enhancing the historic environment' Paragraph 017, and 'Renewable and low carbon energy' Paragraph 007).

Please turn to Page 55 of the National Planning Policy Framework (NPPF) [CD52]. As you will see, according to the Glossary definition of 'Renewable and low carbon energy': "...Low carbon technologies are those that can help reduce emissions (compared to conventional use of fossil fuels)".

In APP-SMO-6B the Applicant provides their estimates of the direct GHG emissions from their incinerator and the electricity that they anticipate it would produce. From this one can calculate the units of CO2 per unit of energy that the facility would produce, and compare this with the conventional use of fossils, i.e. typical CCGT plant.

UKWIN has actually carried out this calculation. Please turn to UKWIN's Updated Carbon Intensity Comparison dated 30th October 2015 [IP27]. This clearly shows that the facility would have a significantly higher carbon intensity than the conventional use of fossil fuels.

Outline of UKWIN's position with regard to how any benefits claimed by the Applicant should be weighed in the planning balance, including implications of not proceeding with the scheme

The final main issue that UKWIN is focussing on today is how benefits claimed by the Applicant should be weighed in the planning balance.

As stated in our opening line from our very first objection to this proposal, dated 7th February 2014 [CD40], "The proposed Plasma Gasification Facility would use an 'Advanced Thermal Treatment' technology that is unproven for treating mixed waste at the scale proposed."

Some 21 months, and numerous Applicant submissions, later and this statement remains accurate, with the Applicant failing to provide any evidence of their proposed technology configuration working successfully for their proposed feedstock at their proposed scale.

As set out in Section 6 of IP9, any weight to be given to claimed benefits should be reduced due to uncertainty that those benefits would be realised. The unreliability of a proposal is material to the weight to be given to the claimed potential benefits that would depend upon that facility operating successfully.

Weighting is a matter of discretion, and UKWIN believes that in this instance the claimed potential benefits (e.g. in relation to job creation, energy generation, etc.) should be given little weight due to the fact that the applicant has not provided any evidence whatsoever about the performance of the proposed technology configuration anywhere in the world, let alone evidence of performance for mixed waste feedstock in a country covered by European Emissions Limit Values.

It is not unreasonable to anticipate that the facility might not work at all or that it might not remain operational, or at the very least that some of the Applicant's predictions were overly optimistic given the lack of real world performance data to highlight the impact of relevant sensitivities.

It is no good for the Applicant to simply state that any individual components have been tried and tested for some purpose or another when one of the things that makes this proposal experimental is not simply the technology used but the configuration of technology and the proposed feedstock and scale for that configuration.

As noted at Paragraph 316 of the November 2014 County Council Planning Committee Report [CD9]: "...The applicant's response [to the Regulation 22 request] confirms that currently no other waste processing plants are operational which utilise the same configuration of plant and technology as the BEC in the UK and Europe."

Arguably the closest we get is Teesside which is yet to be fully operational. However, as noted at Paragraphs 99-101 of our Rebuttal Submission [IP22], the technology configuration

proposed for Bilsthorpe differs significantly from, and is more experimental than, the technology configuration at Tees Valley, because Bilsthorpe uses a gas engine rather than steam cycle to generate power.

This experimental use of a gas engine rather than a steam cycle is acknowledged at Paragraph 1.1.6 of the Bilsthorpe Third Regulation 22 Submission [CD75], where it is cited as a reason why the Applicant had not previously applied to the Environment Agency for a Design-Stage R1 Certificate for their Bilsthorpe proposal.

As noted in our Part 1 Objection, the Environment Agency stated that: "Some technologies such as plasma arc gasification are currently considered not to meet the definition of 'availability' [for the purpose of technologies that should be included in the consideration of 'Best Available Techniques'] due to their very limited application worldwide.

And, as noted earlier, the Bilsthorpe Applicant's own consultants have stated their doubts about plasma arc gasification technology, regarding both the track record and the level of efficiency associated with plasma arc gasification.

Both the applicant and the County Council have misconstrued UKWIN's position in relation to such uncertainty, suggesting that UKWIN is arguing that all experimental technologies must be automatically refused planning permission on the sole basis of these approaches being experimental. This is not UKWIN's position.

UKWIN's approach is nuanced and relates primarily to the weight to be given to claimed benefits and suspected harms and the support that can be derived from policies in cases where the applicant has not shown that their proposed facility is likely, in practice, to give rise to those benefits due to uncertainty regarding the proposed technology configuration.

UKWIN provides evidence regarding potential positive effects of the facility not going ahead at IP2 Paragraphs 117 through 165 of IP2, and IP22 includes UKWIN's comments on the Applicant's case regarding consequences of not proceeding with the BEC Proposal, from Paragraphs 90 to 98, on Pages 15 and 16.

One of the claimed benefits stated by the Applicant relates to supposed climate change benefits. Even if the proposal actually worked, the Applicant's climate change benefits are overstated.

Indeed, the Applicant was forced by UKWIN's evidence [IP22] to concede that, based on the Applicant's own calculations, approximately 54% of the energy that their facility would produce would be fossil-based.

At Paragraph 270 of the EfW Guide [CD60] we read: "Fossil based residual wastes, e.g. plastics...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...", i.e. incineration of plastic is worse, in Climate Change terms, than landfilling that plastic.

This is a point which was given serious consideration at the Lock street Incinerator Inquiry. Paragraph 30 of the Lock Street decision [IP12 Appendix] states: "In certain circumstances generating electrical energy from waste can contribute to carbon emissions to a greater extent than depositing the same material as landfill. It is therefore not a simple exercise to demonstrate that an EfW will have a positive effect on overall carbon emissions..."

This confirms that it is part of the role of the planning decision-maker to consider such issues in the planning balance, rather than uncritically accepting carbon benefit claims made by applicants.

Using the Applicant's figures at APP-SMO-6B as started point, UKWIN has looked at the sensitivity of the Applicant's claimed GHG benefits in relation to differing levels of recycling at the MRF, taking account of carbon sequestration in landfill, and using different marginal electricity factors. This sensitivity analysis, set out IP26, points to the proposal having either very limited carbon benefit compared to sending waste untreated to landfill all the way to having a significant adverse CO2 impact.

If turn to IP26, Table 3, if one uses DECC's Typical CCGT Marginal Emissions Factor (MEF) of 0.349 tonnes of CO2e/MWh with SLR High Recovery scenario and assume all other figures are as supplied by the Applicant in APP-SMO-6B, then the proposal would result in a net CO2 harm of -1,543 tonnes of CO2e per year compared to sending the waste untreated to landfill.

The same table shows how applying the DECC generation-based long-run marginal MEF fixed at the figure for 2018 (the soonest that a Bilsthorpe facility could possibly come out of commissioning), then the same SLR scenario would result in a net CO2 harm of more than 5,000 tonnes of CO2e per year compared to sending the waste untreated to landfill.

The average over the six APP-SMO-6B cases, shows net carbon disbenefit of nearly 1,000 tonnes of CO2e per year.

As shown on Tables 4 and 5 on Page 18 of IP26, if one follows the approach contained in the Defra Carbon Defra's 'Energy recovery for residual waste A carbon based modelling approach' (February 2014), which was used to inform Chapter of the EfW Guide then, even if all of the Applicant's other assumptions were correct and the Applicant's MEF of 0.3986 were use, then the Bilsthorpe proposal would result in a net disbenefit of between 25 and 30 thousand tonnes of CO2 per year when compared to sending the same waste directly to landfill. This equates to up to a million tonnes of CO2 harm over a thirty year lifespan of the facility.

Moving onto Table 6 on Page 19 of IP26, we see that using the relatively more realistic MRF recycling estimates from the Applicant for all composition scenarios results in a significant reduction in the estimate GHG benefits of the proposal.

At Paragraph 110 of IP26 we note that the Applicant stated in their Regulation 22 Submission [CD6] that: "The types of plastic to be removed will depend on the nature of the waste to be processed and the markets for plastic at the time of operation" and that: "Under the Waste (England and Wales) Regulations 2011, as amended, which transpose relevant provisions of the Waste Framework Directive (2008/98/EC) into UK law, there is an obligation on businesses to segregate the four key materials (paper, metals, glass and plastics) for separate collection, providing that this is technically, environmentally and economically practicable."

In this regard, Paragraph 111 of IP26 notes that it is plausible that much of the plastic will be source segregated or removed a waste transfer station prior to the remainder reaching the Bilsthorpe facility, meaning it would not be economic to remove at the site, especially as the calorific value of the waste would be needed to maintain the high calorific value feedstock assumed for facility. This would bring down the level of assumed recycling even further, which would further reduce the claimed GHG benefits of the proposal.

An illustration of bringing all of these various sensitivities together is set out in Table 7 of IP26, which shows a GHG disbenefit of between 35 and 37 tCO2e a year. And the Bilsthorpe proposal could deliver an even greater level of carbon disbenefit if it were diverting feedstock from more efficient incinerators rather than diverting from landfill.

Turning to the Applicant's overstated renewable energy contribution claims, UKWIN has submitted rebuttal evidence, including at Paragraphs 35 through 60 of our IP26 Counter Rebuttal to APP-SMO-6, that points out how whilst the Applicant's text at Paragraph 3.2 of APP-SMO-6 refers to an average 'net' renewable electricity generated figure of 48,349MWh/yr and 6.36MW, and that these are actually the gross figures.

Furthermore, looking at Page 8 of IP26, we see that if one takes account of the renewable energy that would be lost if waste were diverted from landfill by the Bilsthorpe facility that the net renewable electricity generated figure for the Bilsthorpe facility's net contribution, based on the Applicant's own figures, ranges from between 2.45MW and 2.78MW.

This means that the renewable energy contribution of the Bilsthorpe facility would be well below the 6.36MW figure claimed by the Applicant, and even further below the Applicant's 9.6MW net renewable electricity claim made in both the Applicant's Statement of Case (Paragraph 2.6 of P1), and in their November 2013 Environmental Statement (Paragraph 4.1.3 on Page 37 of CD2).

A 2.45MW contribution from the Bilsthorpe facility would only increase the 2015 total installed capacity by 0.13%. Whilst the Applicant criticises UKWIN's use of 'installed capacity'

rather than 'generating capacity' for assessing regional significance, UKWIN notes that 'installed capacity' is what the Applicant refers to in Paragraph 3.2 of APP-SMO-6.

Based on UKWIN's evidence in IP26, and applying the same approach with respect to 'generating capacity' based on the figures given in Paragraph 3.2 of APP-SMO-7, it still appears that the Applicant has significantly overestimated the amount of renewable energy generated, the net increase in renewable energy generation, and the proportional increase in Regional renewable energy generation capacity, that would be associated with the Bilsthorpe facility operating at the level predicted by the Applicant.

Therefore, it is concluded that little weight can be given to the Applicant's renewable contribution claims, and that the Bilsthorpe facility's regional renewable contribution would not be not particularly significant.

As noted, if the Bilsthorpe facility were considered to be diverting waste from a more efficient Energy from Waste plant rather than landfill then the proposal would actually make a negative net renewable contribution, i.e. the proposal would reduce the total amount of renewable electricity generated.