

**CBWIN (Cambridge Without Incineration) Community  
Response**

**For Mr Tim Salter Planning Inspector**

**To the Amey Cespa planning appeal APP/E0535/W/19/3225123**

Energy from Waste facility at Waterbeach Waste Management  
Park, Levitt's Field, Waterbeach, Cambridge, CB25 9PG.

Cambridgeshire County Council original planning application  
reference S/3372/17/CW

**May 2019**

CBWIN are a group of residents who got together after becoming uncomfortable about the Amey Cespa plan for a giant waste incinerator.

We are now supported by many Cambridge residents (and growing). We are not activists or politicians, just ordinary people with busy home and professional lives trying to protect our health, environment and democracy.

- i. CBWIN support the recommendation by Cambridgeshire County Council to refuse planning permission for the waste incineration industrial plant (Energy from Waste).

Planning Ref: S/3372/17/CW

Levitt's Field, Waterbeach Waste Management Park, Ely Road,, Waterbeach, Cambridge, CB25 9PQ

Cambridgeshire County Council reasons for refusal:

- 1. Landscape:  
The scale and massing of the proposed development, in relation to the landscape (being local character and visual impact) and harm to the visual amenity of local residents (particularly those living nearest the development), are considered to have significant adverse effects which cannot be resolved through the proposed mitigation and consequently the development is contrary to Policies CS33 (Protection of Landscape Character) and CS34 (Protecting Surrounding Uses) of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011); and Policies DP/2 (Design of New Development), DP/3 (Development Criteria) and NE/4 (Landscape Character Areas) of the South Cambridgeshire Development Control Policies DPD (2007).
  - 2. Heritage:  
Given the scale and massing of the proposed development, and the significant adverse impact on the local landscape, the harm to the setting of the Denny Abbey Complex heritage asset (comprising the Scheduled Monument; the Grade I Listed Denny Abbey including the remains of the 12th century Benedictine abbey church; the Grade I Listed 14th century Franciscan nunnery; the Grade II Listed 17th century barn to the north of Denny Abbey (The Farmland Museum stone building); and the Grade II listed gate piers at the entrance of the A10) is not outweighed by the benefits of the proposal. Therefore the proposal is contrary to Policy CS36 (Archaeology and the Historic Environment) of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011), Policy CH/4 (Development Within the Curtilage or Setting of a Listed Building) of the South Cambridgeshire Development Control Policies DPD (2007) and Paragraph 196 of the National Planning Policy Framework (2018).
- ii. We strongly endorse the County Council decision for refusal, and request that the Planning Inspectorate uphold the local authority's decision. This proposed development by the appellant is the wrong solution in the wrong place.
- iii. The benefits offered by the proposal do not outweigh the significant and long-term harm that it will cause to (including but not limited to) landscape, heritage, visual,

community, air pollution, environment, ecology, traffic and noise. It is not a sustainable, preferred or innovative solution to management of waste in Cambridgeshire.

- iv. This community response contains evidence to substantiate the harm that the incinerator will cause.
- v. This response is a continuation of our previous representations on this planning application.

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## 1. Planning Policy and Need

- i. The appellant has stated that they do not believe the scale and design of the proposed incinerator causes a level of harm to visual, landscape and heritage that outweighs the need for it.
- ii. The scale and massing are too large, it causes severe harm to heritage setting of ancient Denny Abbey and introduces a significant industrial development to the rural fenland landscape, that is bigger than Ely Cathedral, and is extremely visually intrusive. Cambridge County Council (CCC) were correct to oppose the appellant's planning application.
- iii. We assert that the harm is **not** outweighed by any benefit or need for the facility.
- iv. The net loss that will be caused by the proposal is greater than any net gain, which means that the CCC decision should be upheld at the appeal.

### v. Evidence

- vi. We note that the appellant is challenging the weighting to various adopted and emerging plans in their appeal.
- vii. The appellant appears to 'cherry pick' the policy versions that should receive more weighting in the appeal to suit their agenda. This is inappropriate.
- viii. We have attempted to relate our items of evidence to both the relevant adopted and relevant emerging policies.
- ix. Policies we believe are key to this section (not an exclusive list)
  - South Cambridgeshire Local Plan (2018)- now in force
  - South Cambridgeshire Development Control Policies DPD (2007)- now rescinded
  - National Planning Policy Framework (NPPF) February 2019
  - Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011)
  - Cambridgeshire and Peterborough Minerals and Waste Local Plan: Developing a Spatial Strategy for Waste Management Provision.
    - Stage- Advanced (at Further Draft Stage, has completed two rounds of consultation, expected completion towards the end of 2019).
    - CBWin have actively and positively engaged in this ongoing consultation.

- x. Comparable Building Size (Plan Area)
  - Ely Cathedral plan area (including Lady Chapel)  
Floor Area – 4,273 sq meters
  - Waterbeach incinerator plan area (main buildings only)  
Floor Area – 11,232 m<sup>2</sup>  
~ 2.5 times plan area of Ely Cathedral above
  
- xi. Comparable Building Size (Internal Volume)
  - Ely Cathedral volume  
Total = 150,686 m<sup>3</sup>
  - Waterbeach incinerator main building volume  
Total = 313,428 m<sup>3</sup>  
~ 2 times volume of Ely Cathedral above
  
- xii. Comparable Building Height
  - Ely Cathedral  
Height of 66m (West Tower)
  - Waterbeach incinerator chimney stack  
Total= 80m
  
- xiii. Landscape and Visual

<p><b>Current Policy:</b> Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011)</p>	<p><b>Emerging Policy:</b> Cambridgeshire and Peterborough joint draft Minerals and Waste Local Plan</p>
<p>Policies CS33 (Protection of Landscape Character)</p> <p>Mineral and waste management development will only be permitted where it can be demonstrated that it can be assimilated into its surroundings and local landscape character area in accordance with the Cambridgeshire Landscape Guidelines, local Landscape Character Assessments and related supplementary planning documents.</p>	<p>Policy Design Criteria</p> <p>Rural Location Principles</p> <ul style="list-style-type: none"> <li>● Buildings could reflect agricultural built form or re use redundant farm buildings, if appropriate, or designs may be innovative.</li> <li>● Designs should be in sympathy with local landscape character and distinctiveness. Site locations should</li> </ul>

<p>Policies CS34 (Protecting Surrounding Uses)</p> <p>Mineral and waste management development will only be permitted where it can be demonstrated that there would be no significant harm to the environment, human health or safety, existing or proposed neighbouring land uses, visual intrusion or loss to residential or other amenities. Mitigation measures will be required, including where appropriate a buffer zone, between the proposed development and neighbouring existing or proposed sensitive land uses.</p>	<p>allow sufficient space for quality landscape treatment.</p> <ul style="list-style-type: none"> <li>● Site design should minimise views to operational areas, particularly external storage and parking, and any other elements that present a more 'industrial' appearance.</li> <li>● Security gatehouses/weighbridges should be located away from immediate public view. Designs should take account of existing rights of way and any views from them, conserving important environmental features, such as water bodies and habitat areas. All new landscape or buffer areas should enhance biodiversity.</li> </ul>
<p>The applicant currently receives waste from 5 counties and the Isle of Wight</p>	
<p>Site Specific Proposals document - Levitt's Field is allocated for waste uses (under reference W1K), which includes the 'potential for Energy for Waste' but does not specify which technology.</p>	

- xiv. The planned height, scale and design of the building and chimney stack are entirely out of keeping with surrounding local parish architecture and crucially the Fenland landscape which by nature has typical long flat and open views.
- xv. The building site with its required chimney stack will be visible from up to 50km and overbearing to existing landscape and village architecture. (*Community funded Landscape and Visual Review 2018*)
- xvi. It will dominate the landscape and usurp the cathedral's unique and historic place in the Fens. The proposed incinerator would become the largest building in the Fens. Several images are included to demonstrate this impact.

- xvii. Ely Cathedral is known as the 'ship of the Fens'. It commands the Fen landscape, being visible from the far distance, with a clear sense of approach. The proposed facility will



have a footprint more than twice that of the cathedral. The main building will measure 44m at the roof (taller than the cathedral Nave). The chimney from the incinerator will be 80m (46ft taller than the Cathedral West Tower).

Ely Cathedral as seen from Madingley American cemetery and memorial, Cambridge, circa 20km away. The incinerator will sit on this sightline.



Various images below of the view north from American Cemetery.



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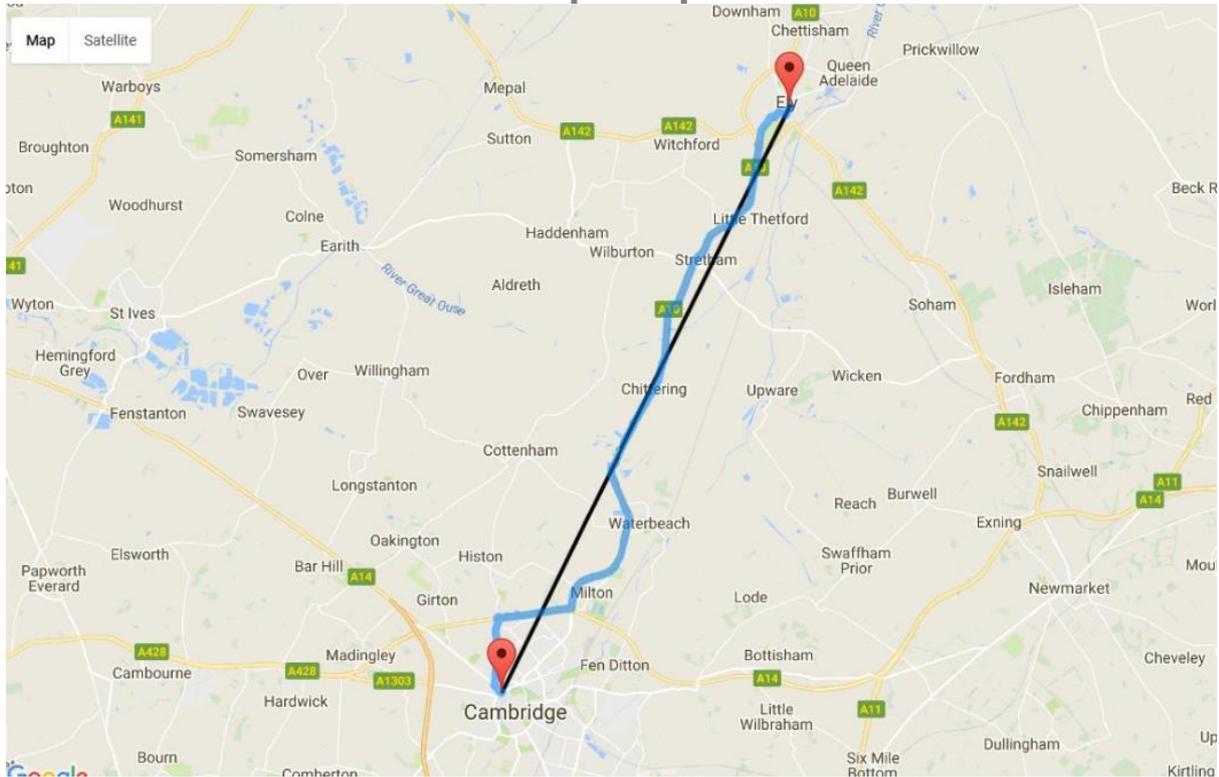


- xviii. Various historic and uninterrupted sightlines will be affected across the Fens by the proposed incinerator.
- xix. Where visible from within surrounding villages themselves, the impact will be of significant magnitude and of substantial impact; the scope for mitigation measures is extremely limited. The proposed development will be visible from a great distance and be clearly noticeable as an alien industrial component; this in the context of an environment containing many ancient and contemporary (but not industrial) influences.
- xx. It is well documented that Ely Cathedral (the ‘Ship of the Fens’) is visible from various high points in Cambridge (and vice versa). At the proposed location the development will form a large and noticeable feature in an expansive panorama, and will diminish the understanding and appreciation of the Cathedral and its relationship with the Fens landscape.
- xxi. Ely Cathedral can be seen from Devils Dyke, Fleam Dyke, Gogmagogs, the American War Cemetery and Cambridge Castle Mound. The presence of the incinerator will diminish the understanding and appreciation of the Cathedral and these ancient land marks, and the context of the Fenland landscape, including their significance to each other. The incinerator reduces the significance of Ely Cathedral as an asset when viewed from landmarks in Cambridge and our ability to understand it. In such a wide and flat Fen landscape the incinerator coupled with its 80mtr stack will compete for prominence.

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- xxii. The appellant frequently uses illustrative images that neglect to show scale versus this neighbour and are angled to disguise the true scale of the building and size of the chimney stack.
- xxiii. At the County Planning meeting David Atkinson made reference to “occasional plumes” which would be visible, but these were not shown on any of the artists impressions presented on behalf of the appellant. There are many examples on the internet of images of stacks with plumes.



Bi-annual  
maintenance  
cleaning at Great  
Blakenham waste  
incinerator, Suffolk

Above: Biannual maintenance cleaning of the Suffolk incinerator



*Photo of Amey Allerton Incinerator (smaller site and stack than Cambridge proposal)*

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Below: A typical energy from waste facility during normal operations

- xxiv. Of note, Essex County Council Planning has recently rejected the Rivenhall EwF proposal update due in part to visual impact of a stack with height much lower than the Waterbeach proposal see - <https://www.letsrecycle.com/news/latest-news/essex-advised-to-reject-second-rivenhall-efw-plan/>
- xxv. The significant visual prominence at long distances would also be harmful to the character and appearance of and views from closer locations including the conservation areas of Wicken Fen (SSSI), Angelsey Abbey, Cam Washes, Ouse Valley Trust and Fen Rivers Way.
- xxvi. The proposal produces significant harm to the immediate and local Fenland landscape and introduces an out of character industrial visual intrusion which harms the visual character and appearance of the Fens and conservation areas (National Trust Wicken Fen and Angelsey Abbey, and the Cam riverways and washes).
- xxvii. Scope for landscape and visual mitigation measures is very limited and does not resolve the severe harm the proposal causes to landscape and visual.



- xxviii. The design and scale therefore contravene the NPPF guidelines referenced when CCC rejected the proposal, and also contradicts the newly adopted NPPF.

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- xxix. Furthermore, the appellant **once again**, in their Statement of Appeal has entirely undermined the existence and conclusions of additional and extensive landscape and visual information that was presented to the CCC planning committee, and which contributed to the grounds on which CCC refused the application.

The appellant has omitted from their Statement of Appeal, the community organised and funded independent professional Landscape and Visual review by nationally renowned landscape expert consultants from Michelle Bolger Expert Landscape Consultancy (MBELC). The full review is available in Planning Policy Appendix 1.

- Key points from the independent expert review:

“The assessments by Amey Cespa and TLP (for CCC) have resulted in underestimation of the landscape and visual impacts of the development. - Such a large-scale industrial building will be visible over a much wider area than has been assessed and incongruous within the largely rural character of the landscape surrounding the site.

The building would be an isolated structure, with no other industrial buildings of a similar scale and height in the surrounding landscape, it would be a major visible detractor. The only local building of a similar scale and height is Ely Cathedral. The development would introduce a new industrial ‘landmark’ to the Fenlands.

The nature of the change is adverse and would be experienced across a wide geographical area.

From elevated locations such as Haddenham Ridge, a new vertically prominent feature would be introduced, breaking the skyline and unrelated to any existing features. The effects on both users of the A10 and people along the Haddenham ridge would be moderate/major adverse and would be significant.

Conclusions:

The proposed development would not be compliant with local policy objectives because the development:

- Is not capable of being assimilated into its surroundings without causing unacceptable harm to the visual amenity and the local landscape character
- Would cause significant harm to any existing neighbouring land uses and be significantly visually intrusive
- Have an adverse effect on the setting of a historic landscape
- The design, including form, massing and size, does not respect the local context or reflect local distinctiveness
- Cannot be resolved through proposed mitigation

- xxx. When the A14 was built, sight lines from the American Cemetery to Ely Cathedral were considered and protected. Generations have understood and worked towards protecting Ely cathedral's Fenland setting and the Fenland sight lines.
- xxxi. The proposal produces significant harm to the character and setting of Historic England's ancient heritage asset Denny Abbey and landscape.
- xxxii. Summary
- xxxiii. The proposal causes significant harm to the immediate and local Fenland landscape and introduces an out of character industrial visual intrusion which harms the visual character and appearance of the Fens and conservation areas (National Trust Wicken Fen and Angelsey Abbey, and the Cam riverways and washes). The proposal causes significant harm to the character and setting of Historic England's ancient heritage asset Denny Abbey and landscape.
- xxxiv. Scope for landscape and visual mitigation measures is very limited and does not resolve the severe harm the proposal causes to landscape and visual.
- xxxv. For reasons outlined, the design and scale contravene the NPPF guidelines that were referenced when CCC rejected the proposal and also contradicts the newly adopted NPPF. The design and scale also contravene both the adopted and emerging CCC MWLP.

## Heritage

xxxvi. The National Planning Policy Framework 2019 and the National Planning Practice Guidance (NPPG) provide the basis of national planning policy and of key policy that relates to heritage assets. They describe heritage assets as 'irreplaceable resources' and '*Where planning proposals significantly impact on the heritage asset, they should be rejected.*'

xxxvii. Of specific relevance to Policy 23 of the NPPF are the following paragraphs:

Para 132- "*When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the heritage asset's conservation, including sustaining significance*"

Para 184- "*Heritage assets range from sites and buildings of local historic value to those of the highest significance... These assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so they can be enjoyed for their contribution to the quality of life of existing and future generations.*"

Para 185- "*Plans should set out a positive strategy for the conservation and enjoyment of the historic environment...*"

Para 193 - "*When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the assets conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.*"

xxxviii. The appellant in their Statement of Appeal suggests that in the respect of Heritage and Denny Abbey, their Environmental Statement was given less weight than the individual submissions from the parties involved. This is not correct. The appellant's Environmental Statement underplayed the nature and severity of the true impacts on Denny Abbey.

xxxix. The proposed incinerator is to be sited on the A10 opposite and in very close proximity to English Heritage and Historic England's ancient monument Denny Abbey.

Denny Abbey is a twelfth century site of national historic importance. It is metres away from the A10 site. The National Trust's flagship Wicken Fen is five miles away.

xl. The proposal does not allow for the heritage significance of Denny Abbey to be appreciated. This is because the development (many times its size) competes directly with it, and the proposed mitigation methods (tree planting and a new access road) do not offset this harmful competition.

xli. Furthermore, the mitigation offered by planting trees does not in any way screen the view of the incinerator from Denny Abbey, no amount of tree planting is going to successfully hide a building larger than Ely Cathedral, and a huge chimney towering to 80m.

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- xlii. The proposed planting for mitigation also encloses the ancient site such that it will become hidden completely from views to it from the north and west and as such it loses its historic presence.

<p><b>Current Policy:</b> Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011)</p>	<p><b>Emerging Policy:</b> Cambridgeshire and Peterborough joint draft Minerals and Waste Local Plan</p>
<p>CS36 Archaeology and the Historic Environment Mineral and waste development, including extraction and restoration, will not be permitted where there is:</p> <p>a. an adverse effect on any designated heritage asset, historic landscape, or other heritage asset of national importance, and/or its setting unless there are substantial public benefits that outweigh that harm or loss</p> <p>b. any significant adverse impact on a site of local architectural, archaeological or historical importance</p>	<p>Policy: The Historic Environment</p> <p>Retain and enhance the character, distinctiveness and accessibility Protect and where possible enhance the character, quality and ensure minerals and waste development conserves, protects and distinctiveness of the enhances designated and undesignated heritage assets and their built and historic settings, including archaeological assets environment</p>
<p><b>Historic England</b> 2017 Historic Environment Good Practice Advice in Planning: 3 (2nd Edition) The Setting of Heritage Assets.</p> <p>Consideration of the contribution of setting to the significance of heritage assets, and how it can enable that significance to be appreciated, will almost always include the consideration of views. The staged approach to taking decisions on setting given here can also be used to assess the contribution of a view, or views, to the significance of heritage assets and the ability to appreciate that significance.</p>	

<p>Views, however, can of course be valued for reasons other than their contribution to heritage significance. They may, for example, be related to the appreciation of the wider landscape, where there may be little or no association with heritage assets. Landscape character and visual amenity are also related planning considerations. The assessment and management of views is described in Planning Policy Appendix 2</p>	
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- xl.iii. The offer of hard cash and marketing resource and a new access road for the Farmland Museum does not form genuine mitigation of serious visual and heritage impact to Denny Abbey.
- xl.iv. In addition, WRAP.org recommend locations where EfW incinerators should not be built. WRAP (Waste and Resources Action Programme) are the UK's Circular Economy & Resource Efficiency Experts. They say they should not be located near:
  - Schools (a primary school is planned less than 500m from the plant and downwind of it in the approved and committed major development of the Waterbeach Barracks into a new town of 6,500 houses
  - Areas of nature conservation interest, e.g., Sites of Special Scientific Interest (SSSI), Special Area for Conservation (SAC), Special Protection Area (SPA), Local Nature Reserve (LNR), National Nature Reserve (NNR), Biosphere Reserves or Global Wicken Fen SSSI RAMSAR and Cam Washes SSSI are both well within the 10-16km emissions impact zone and downwind of the plant. We have covered this further in the section on 'Pollution' and 'Cumulative Impacts'.
  - Areas or sites of historic interest (e.g. listed buildings World Heritage Sites, Conservation Areas); Denny Abbey is an ancient monument.
  - [http://www.wrap.org.uk/sites/files/wrap/O\\_And\\_EFW\\_Guidance\\_FULLL.pdf](http://www.wrap.org.uk/sites/files/wrap/O_And_EFW_Guidance_FULLL.pdf)
- xl.v. Summary
- xl.vi. The proposal produces significant harm to the character and setting of Historic England's ancient heritage asset Denny Abbey and landscape.
- xl.vii. Scope for mitigation is limited to tree planting; this will not offset the harmful competition that an industrial incinerator would introduce and the damage it would cause to views.
- xl.viii. The severe harm to heritage and views is not resolved by the appellant.
- xl.ix. For reasons outlined, the NPPF guidelines that were referenced when CCC rejected the proposal and the newly adopted NPPF are contravened by this proposal. The

design and scale also contravene both the adopted and emerging CCC MWLP in respect of heritage.

- I. Crucially, the severe harm described is not offset by the stated benefit of constructing the facility.

- li. Waste Need
- lii. The appellant claims that there is a need for the facility and that this on balance outweighs all other harmful impacts.
- liii. Nothing could be further from the truth. There is overcapacity in the incineration market and DEFRA's Chief Scientist in September 2018 called for a halt on new incinerators. The legislative framework and operational context for incineration is changing. A new incineration tax is expected, disincentivising incineration. Difficult to recycle and single-use plastics are likely to be addressed in ongoing central government DEFRA initiatives. The urgent need to respond to worsening air quality and its health impacts will see the publication of a *Clear Air Strategy* in March 2019. Taken together, we can expect to see a steady reduction over time the amount of plastics going to landfill or for incineration. In September 2018, Environment and Resources Minister Therese Coffey said, there *is 'sufficient capacity of UK energy-from-waste facilities'* and she agreed with the EU Commission's concern there is too much incineration across the EU, saying that the UK's approach is consistent with this view, and with the move to remove energy recovery from inclusion in recycling targets.'

<https://www.mrw.co.uk/latest/coffey-reveals-details-on-resources-and-waste-strategy/10035197.article>

<https://larac.org.uk/news/therese-coffey-outlines-defras-resources-and-waste-strategy-contents>

- liv. DEFRA's former Chief Scientific Adviser Prof. Ian Boyd said: *"If there is one way of quickly extinguishing the value in a material, it is to stick it in an incinerator and burn it. It may give you energy out at the end of the day, but some of those materials, even if they are plastics, with a little ingenuity, can be given more positive value."*  
<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environment-food-and-rural-affairs-committee/work-of-the-chief-scientific-adviser-defra/oral/78127.html>

We have covered the context of 'need' further in the section on 'Incineration: The Wrong Solution'.

- lv. Furthermore, the adopted CCC MWLP does not state a requirement for EfW facility development to meet waste needs. It merely indicates that in principal the WWMP is suitable for potential EfW development.
- lvi. The emerging MWLP concludes that there is no need for development of new waste management facilities in the county for the duration of the emerging MWLP. Waste needs are satisfied moving forwards- there is no need for a giant EfW.

<p><b>Current Policy:</b> Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011)</p>	<p><b>Emerging Policy:</b> Cambridgeshire and Peterborough Joint Draft Minerals and Waste Local Plan</p>
<p>An anticipated shortfall in inert waste processing capacity within the Plan period has been identified. This gives rise to the additional need for inert landfill to manage around 3.7 million tonnes of inert waste, which is equivalent to 2.49 million cubic metres of void. In total over the Plan period, 12.09 million cubic metres of additional inert landfill is needed. Plan period is to 2026.</p>	<p>Waste Needs Assessment 2019</p> <p>Site Specific Spatial Design:</p> <p>Owing to a combination of factors including past experience; the limited potential allocations put forward through the call for sites process; and the capacity gap not being substantial; and allied to the potential for the MWLP to give a clear spatial direction to the location of facilities through a spatial and criteria based policy, it has been concluded that there would not be significant benefits in allocating specific sites in the MWLP.</p> <p>New strategic development areas such as Northstowe and Waterbeach, will be expected to incorporate waste management facilities to enable communities and businesses to take more responsibility for their own waste</p>
<p>DEFRA</p> <p>Waste and Resources Strategy (Dec 2018) recommends that Regional Spatial Strategies (RSS) are the optimum approach to support effective localised waste and minerals management and development of facilities. CCC is following government direction in developing an RSS, which is at an advanced stage (due to complete at the end of 2019 and has been through two rounds of consultation already).</p> <p>Relevant points of this strategy to this appeal are provided in Planning Policy Appendix 3.</p> <p>DEFRA have also announced a public consultation phase (which closes soon) on 3 major projects which will influence the county LPMW:</p>	<p>Draft Joint MWLP</p> <p>A significant amount (almost four times that exported) of waste is also imported into the Plan area with over half of waste imported from other authorities disposed of two non-hazardous and inert landfill. Overall the Plan area is a major net importer of waste. Such arrangements are subject to commercial contracts however with other authorities also seeking to increase their waste management capacity movements are expected to reduce in the future, although some movements will still occur.</p> <p>Currently there is sufficient waste management capacity within Cambridgeshire and Peterborough (jointly) with regards to net self-sufficiency for preparing for reuse and</p>

<ul style="list-style-type: none"> <li>- Consistency in Household and Business Recycling Collections in England,</li> <li>- Drink bottle Deposit Return Scheme which aims to increase recycling and reduce littering via central strategy and incentives,</li> <li>- Commercial Packaging,</li> </ul> <p>These legislations are expected to be adopted in early 2020</p>	<p>recycling (including composting) and other recovery/treatment.</p> <p>Cambridgeshire and Peterborough produce around 2.7 million tonnes of waste each year. This waste comprises a mix of different types of waste, the largest proportion of which comes from construction, demolition and excavation operations. Municipal waste (generated by households) only accounts for 15% of the waste to be managed</p> <p>Plan for the disposal of waste and the recovery of mixed municipal waste in line with the proximity principle - The Waste Needs Assessment associated with the MWLP has assessed the requirements for disposal against the permitted capacity and it is sufficient to accommodate Cambridgeshire and Peterborough's municipal waste management needs over the plan period, even allowing for some of London's waste still coming into the plan area.</p> <p>Waste Needs Assessment which forecasts waste arising and the capacity needed to manage this over the period to 2036. It confirms that existing capacity will meet almost all of our needs until 2036, and therefore no waste allocations are being proposed. Instead a spatial strategy and criteria-based policy will guide any future waste management development.</p> <p>No allocations are being proposed for waste management development over the plan period as the Plan area has, on the whole, sufficient capacity to manage the forecast waste arising. Therefore, it is proposed that any new waste management development will be guided through a criteria-based policy.</p> <p>Per Section 2.10 under "Vision"  <i>"As existing communities grow and new communities are formed, a network of</i></p>
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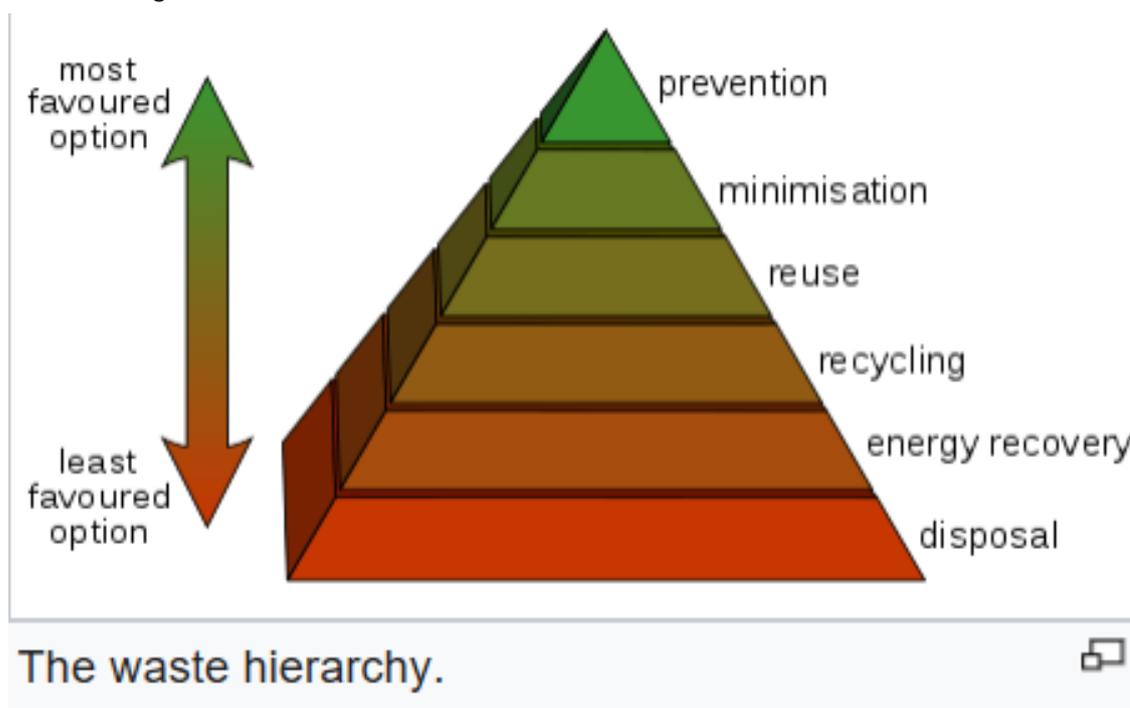
	<p><i>waste management facilities will provide for the sustainable management of all wastes to the achievement of net self-sufficiency"</i></p>
	<p>Appellant Clarification Letter to CCC, Apr 2018</p> <p>70% of the burning capacity of the plant will be given to a 'local catchment area' and &lt;30% capacity retained for private contract imports that will be allowed to come from geographically anywhere.</p> <p>The 'local catchment area' comprises Cambridgeshire and Peterborough, and their adjoining counties of Milton Keynes. Adjoining Counties are Hertfordshire, Suffolk, Essex, Norfolk, Luton, Bedford, Central Bedfordshire, Northamptonshire, Rutland, and Lincolnshire. 11 counties in total.</p> <p>Waste being processed through any waste transfer station within the defined catchment will be regarded as arising from within the catchment area</p>

- lvii. Local authorities are expected to achieve self-sufficiency of waste management by 2050 as per the direction provided by the DEFRA Waste and Resources Strategy 2018.
- lviii. The drive for self-sufficiency at local authority level comes from a series of European and central government policies including:
  - the EU Waste Framework Directive (Article 16), further interpreted at (<https://www.gov.uk/guidance/waste>):
    - "The network shall enable waste to be disposed of or recovered in one of the nearest appropriate installations"
    - "Waste planning authorities should ensure that sufficient waste disposal facilities exist within their Local Plan area"
  - This overarching policy referenced in the "National Planning Policy for Waste" (Section 3)
  - This is then reflected further in Paragraph 2.10: of the Cambridgeshire and Peterborough Further Draft MWLP "As existing communities grow and new communities are formed, a network of waste management facilities will provide

*for the sustainable management of all wastes to the achievement of net self-sufficiency"*

- lix. The Household recycling rates in England increase significantly from 11% in 2001 to 45.2% in 2017. However, in recent years, progress has been slower, and rates have remained at around 44/45%. While many local authorities continue to make improvements and introduce new services some have seen a drop-in recycling rates and do not collect the full range of materials that can be recycled or do not collect food waste separately.
- lx. In addition, recent changes in Government strategy and targets, and industry initiatives (such as from WRAP) move to reduce/recycle plastic packaging, and the need and viability of any additional EfW capacity is therefore greatly reduced.
- lxi. Key sections of the further draft MWLP of relevance:
  - a. Para 184. *"Waste arisings for Cambridgeshire and Peterborough totalled around 2.778Mtpa in 2017; this includes municipal, C&I, CD&E and hazardous waste. Forecasts indicate that waste arisings could increase to 3.157Mtpa by the end of the plan period (2036)."*
  - b. Para 185. *"There is sufficient waste management capacity within Cambridgeshire and Peterborough (jointly) with respect to preparing waste for reuse and recycling (including composting), other recovery/treatment and disposal to non-hazardous landfill (including SNRHW)."*
  - c. Para 186. *"Although there is a shortfall in inert recovery and landfill void space this additional capacity can be accommodated by void space associated with restoration of mineral extraction sites. No new inert landfill or recovery sites (not associated with restoration of mineral extraction sites) are required over the plan period."*
  - d. Para 187. *"There is sufficient permitted void space to accommodate the Plan areas disposal needs and (some of) London's non-apportioned household and C&I waste to be exported for disposal to non-hazardous landfill (includes SNRHW). Monitoring of disposal to non-hazardous landfill (including residues) and remaining void space will be necessary to ensure that wastes are managed, and any necessary capacity planned for appropriately."*
  - e. Para 188. *"There is a potential need for hazardous waste recycling and disposal capacity. As such waste tends to be managed at a regional to national scale and are generated in significantly lower quantities it is not possible for every WPA to achieve self- sufficiency. "*
- lxii. The appellant's clarification letter April 2018 (see table above) is evidence that the appellant recognises that there is insufficient waste need within Cambridgeshire and Peterborough to maintain the viability of the incinerator. They require the ongoing import of large amounts of waste to ensure viability

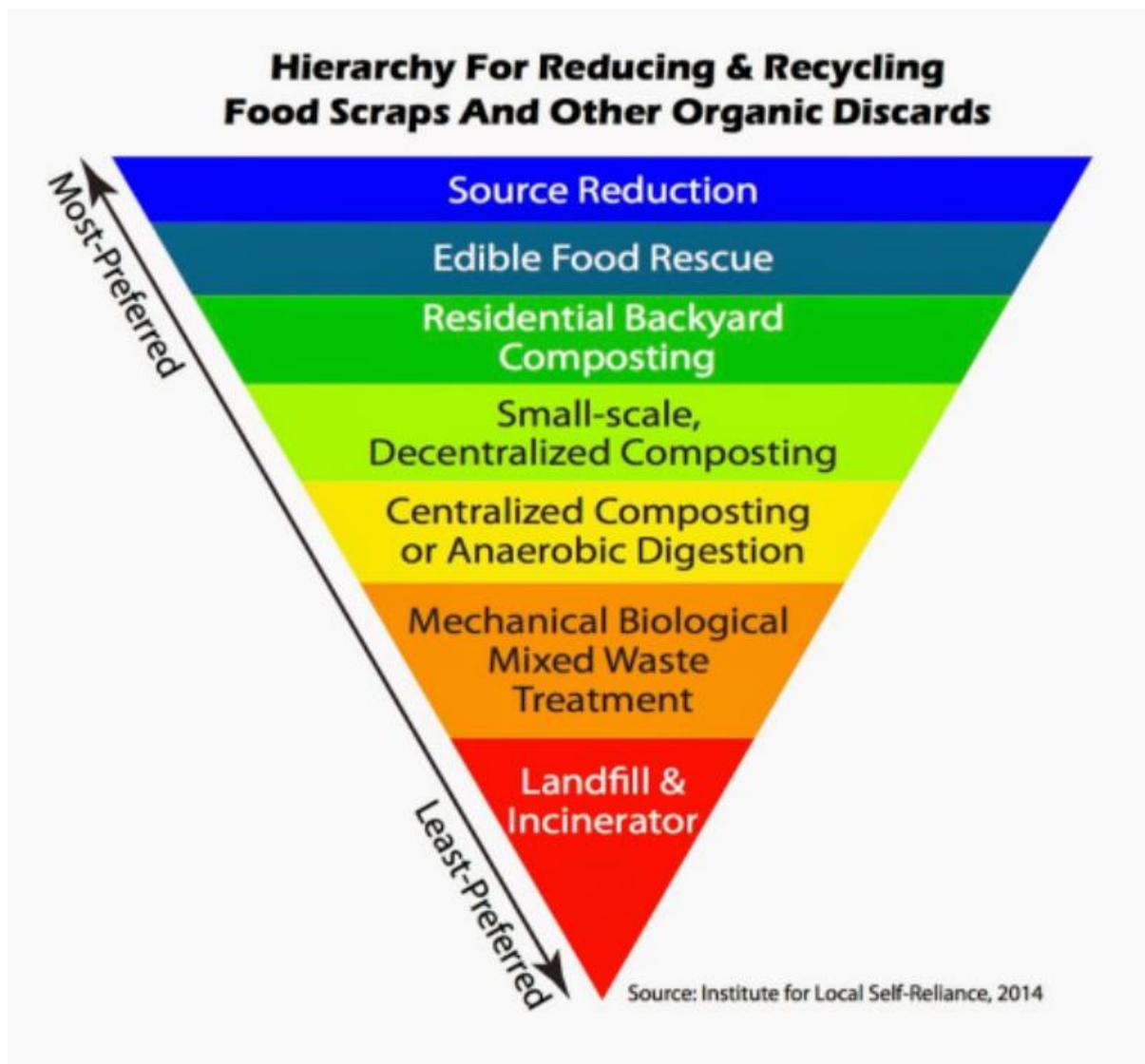
- lxiii. The emerging MWLP is in advanced stage, set to complete towards the end of the year (around the same time that the appeal hearing is scheduled). It has been through two rounds of consultation already. It therefore should receive considerable weighting and given the imminence of its adoption; we would argue that the appeal should afford this document considerable weight.
- lxiv. For the appellant to argue that the emerging MWLP can be afforded little weight (given that it exists in a second draft and has been through two rounds of formal consultation); is directly at odds with (for example) their inclusion of a 'Heat Transfer Pipe' estimates in their case. The 'Heat Transfer Pipe' (by comparison) has no interested 3rd parties identified, no associated planning for its use at all, and such schemes have already failed in the region in Ipswich. The 'Heat Transfer Pipe' benefit called out by the appellant is much more speculative in nature, than the relevant policy revisions in the Further Draft Waste and Minerals Local Plan.
- lxv. The appellant argues that the committed new town at Waterbeach of 6,500-11,000 dwellings needs the incinerator for heating and hot water. The appellant has engaged in discussions with the developers of the new town with a view to potentially creating an energy transfer link. However, the two outline planning applications for the new town indicate self-sufficient combined heat and power energy centres and have not provided details regarding renewable energy generation infrastructure (solar/wind/hydro), so the exact energy needs for this major development are outstanding for confirmation.



The detailed planning application stage for the new town will require developers to demonstrate energy generation from innovative technologies that promote waste moving up the waste and EfW hierarchy. It would be out of keeping with the vision of the new town for incineration to be selected as the preferred energy generation method given that this method sits at the very bottom of the EU waste management

hierarchy, and is just one level up from landfill (due to it being far less efficient and far more damaging to the climate than many other EfW technologies).

- lxvi. Incineration sits at the bottom of the EU Waste Management Directive EfW hierarchy due to it being the least sustainable and most environmentally damaging EfW option



- lxvii. Summary

- lxviii. The Balance of 'Public Good' versus 'Harm' argument used by the appellant to justify the development does not stand up under scrutiny. This is because the emerging MWLP concludes that there is no need for development of new waste management facilities in the county for the duration of the emerging MWLP. There is no need for a significant EfW facility as waste needs are satisfied moving forwards.

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- lxix. In addition, the facility will cause a loss to landscape, visual and heritage that far exceeds any gain that it could provide even if there was an established 'need' for waste facility development within the advanced emerging MWLP.
- lxx. Overall summary- Planning Policy and Waste Need
- lxxi. The proposal would cause severe harm to the local Fenland landscape and introduces an out of character industrial visual intrusion which harms the character and appearance of the Fens and conservation areas (National Trust Wicken Fen and Angelsey Abbey, and the Cam riverways and washes). The proposal threatens significant harm to the character and setting of Historic England's ancient heritage asset Denny Abbey and landscape.
- lxxii. Mitigation measures are insufficient and do not resolve the loss to these very important material matters.
- lxxiii. The facility will cause a loss to landscape, visual and heritage that far exceeds any net gain for satisfying waste need that it could provide, even if there was an established 'need' in the existing or emerging MWLP for waste facility development.
- lxxiv. These statements are defensible whether looking at adopted or emerging/new policies: NPPF, CCC MWLP and DEFRA Waste and Resources Strategy.
- lxxv. Critically, there has been no change to landscape or cultural heritage policy within the new NPPF 2019 that alters assessment of the level of adverse impact this proposal will have on landscape and visual. The impact remains severely and significantly harmful.

## 2. Noise

- vi. We maintain that the proposal will have an adverse environmental impact by virtue of noise emissions from the plant, and note that this is contrary to the Cambridgeshire County Council Minerals and Waste Core Strategy Policy CS2 (and Policy\_18 Amenity Considerations in the advanced emerging 'Further Draft Minerals and Waste Local Plan' (MWLP)).

-Policy 18 of the advanced emerging MWLP states:

"New development must not result in unacceptable adverse impacts on the amenity of existing occupiers of any land or property, including:

d. noise and/or vibration levels resulting in disturbance to the occupiers or users of any nearby property or land";

### Evidence

- vii. The County Council's 'Noise Assessment Review' gave evidence that the proposal is not viable.  
 "9.1.8. Given that the application is a full (i.e. detailed) application, the use of so many assumptions and the lack of firm commitment to specific mitigation measures. Those assessed are portrayed as options with the use of alternatives mooted which inevitably undermines confidence in the predicted outcomes. "
- viii. The appellant and the Environment Agency could confirm the noise impact or associated safety risks of the plant at any public event when questioned by us.
- ix. The appellant has been unable to provide robust noise predictions for the existing surrounding residential and business areas - Cambridge Research Park, The Farmland Museum, Denny Abbey and villages of Waterbeach, Landbeach, Chittering and Cottenham.
- x. Moreover, the appellant has not provided robust noise predictions for the committed development of Waterbeach Barracks (where a primary school will be sited very close by the giant incinerator plant- downwind 500-800m to be exact) and land adjacent to the barracks.
- xi. This is not a sound basis to approve the incinerator because of the still unknown noise impacts that the incinerator will cause during construction and when operational burning waste 24/7.
- xii. The appellant should
1. Provide conclusive assessments of the noise impact on the residential and business areas mentioned above and including the committed development of Waterbeach Barracks and land adjacent to the Barracks.
  2. Assessments must reflect the reality of cumulative 24/7 operations.

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### 3. Pollution

- i. The appellant claims that the aggregate 'good' generated by the development, far outweighs the 'harm' done by the development.
- ii. We are concerned that the appellant refers only to 'harm' to landscape, visual and heritage, and ignores the very real harm this development will create for the climate in the form of pollution.

#### iii. Evidence

##### iv. Climate Breakdown, Climate Emergency

- v. Many people have been moved by 16-year-old Greta Thunberg's recent inspiring, brave and infectious call to action on climate change — a call to people and governments the world over. Few can have missed the Extinction Rebellion climate change protests. Many have been moved by Sir David Attenborough, highlighting the impact of climate change on the natural environment. The threats are immediate and pressing. They can also seem overwhelming. Where do we begin? What changes can we make that will make a difference and stop a dire situation from worsening?
- vi. The IPCC (Intergovernmental Panel on Climate Change), the EU and the UK government have now formally recognised this as the planet's first 'Climate Emergency' which has triggered an emergency committee.
- vii. In addition to the evidence of and recent declarations of "emergency" concerning climate change and plastic pollution, the UN has recently issued a landmark report on the impact of humans on the planet's living systems. In a television interview, Prof Bob Watson Chair of the Intergovernmental Panel on Biodiversity Ecosystem Services (IPBES) and Chair of the landmark report said "*The scale and severity are enormous. The pursuit of economic growth is the cause. The problem is both local and global and we must act now.*"
- viii. Local authorities and central government are responsible now to urgently reduce all forms of pollution and improve air quality.
- ix. However, as we all know, we are ALL responsible and we must all make our individual contributions. The cost of not making small changes to the way we shop, eat, travel, use, re-use and recycle has been laid out in no uncertain terms before us.

<https://www.bbc.co.uk/news/science-environment-48169783>

- x. Local authorities, like central government are responsible now to urgently reduce all forms of pollution and improve air quality. Many are taking important steps in this direction:

*“Days after the Met Office warned of significant temperature rises in the decades ahead, South Cambridgeshire District Council has pledged to support an ambitious target of cutting local carbon emissions to zero by 2050” 3/12/18*

<https://www.scambs.gov.uk/climate-emergency-as-council-aims-to-make-south-cambridgeshire-zero-carbon/>

*“CAMBRIDGE City Council has declared a ‘climate emergency’ and called on government, industry and regulators to implement the necessary changes to enable Cambridge and the rest of the UK to reach net zero carbon by 2030.” 21/2/19*

<https://www.cambridge.gov.uk/news/2019/02/22/cambridge-city-council-declares-climate-emergency>

- xi. World Wildlife Fund March 2019: Video excerpt ‘Be Part of the movement of hundreds of millions around the globe’

*“We are the first generation to know we are destroying the world. And could be the last that can do anything about it. But there’s still time to act! Be part of a global movement, to protect our planet. Do more for your world”*

- xii. Leonardo DiCaprio- UN ambassador for climate change. Excerpt of speech March 2019.

*“As a UN messenger of peace, I have travelled all over the world that last two years. I have seen cities like Beijing choke by industrial pollution, ancient boreal forests in Canada that have been clear cut and rain forests in Indonesia that have been incinerated. In India I met farmers whose crops had been literally washed away. In America, I have witnessed sea level rise flooding the streets of Miami. In Greenland and the Arctic I was astonished to see that ancient glaciers are rapidly disappearing well ahead of scientific predictions. All that I have seen and learned on my journey has absolutely terrified me. Now think about the shame that each of us will carry when our children and grandchildren look back and realise that we had the means of stopping this devastation but simply lacked the political will to do so. It is time to declare no more talk, no more excuses, no more 10-year studies, no more allowing the fossil fuel companies to manipulate and dictate the science and policies that affect our future. The world is now watching. You will either be lauded by future generations or vilified by them. You are the last, best hope of Earth. We ask you to protect it, or we, and all living things we cherish are history.”*

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- xiii. The appeal presents a stark choice: champion true waste management evolution or permit technological stagnation.
- xiv. Incineration and the Climate
- xv. In recent years, we have seen the proliferation of Energy from Waste (EfW) solutions — to manage the burden of waste which claim to be ‘green’ sources of power. Numerous incinerators have been built in the UK, to the point where the market is now saturated.
- xvi. One of the arguments used in favour of incineration locally is that it will generate electricity for Waterbeach New Town. In fact, incineration requires considerable quantities of energy to burn the waste in the first instance. Incineration also pumps out high volumes of carbon dioxide and other greenhouse gases as a by-product, as well as generating fly-ash, heavy metal emissions, small particulate (PM 2.5) and dioxins, some of the most toxic substances known to man. Incineration is not green. In fact, the problem has now shifted, and more dioxins and other toxic substances are appearing in the ash and the flue emissions, therefore creating new disposal and pollution problems.
- xvii. The myth that burning makes waste disappear has led to incineration emerging as a widely used method for disposing many kinds of waste, including hazardous wastes. Rather than making waste disappear, incinerators create more toxic waste that pose a significant and insidious threat to public health and the environment.
- xviii. Over the past few years, many countries have updated their old incinerators or built new ones. In doing so, they have taken advantage of improved technologies for air pollution control. This has resulted in a substantial reduction in toxic emissions. Although this is an improvement, toxic waste production is still a serious global issue. In fact, the problem has now shifted, and more dioxins and other toxic substances are appearing in the ashes, therefore creating new disposal and pollution problems.
- xix. The myth that burning makes waste disappear has led to incineration emerging as a widely used method for disposing many kinds of waste, including hazardous wastes. Rather than making waste disappear, incinerators create more toxic waste that pose a significant threat to public health and the environment.
- xx. Incineration is often touted as an alternative to land filling. However, what many people do not realise is that incinerator ashes are contaminated with heavy metals, unburned chemicals and new chemicals formed during the burning process. These ashes are then buried in landfill or dumped in the environment.

- xxi. Incineration is a method where industry can break down its bulk waste and disperse it into the environment through air, water and ash emissions. It is a convenient way for industry to mask today's waste problems and pass them onto future generations.
- xxii. Once emitted into the environment, dioxins can travel long distances via air and ocean currents, which makes them a global contaminant. Dioxins are distributed into the environment as part of incinerator stack gases, bottom ash, fly ash and in the effluent of pollution control devices.
- xxiii. Despite improvements in incineration technology over the decades, burning wastes at high temperatures is known to result in the continual release of vaporised heavy metals (the most of toxic of which, carcinogenic; Arsenic, Cadmium, Mercury, Nickel and Chromium are not required to be measured by Environment Agency (EA) permits), acid gases, toxic small particulates (PM2.5) and pollutants through atmospheric emissions and ash production. Continual release produces cumulative impacts over lengthy industrial plant lifespans of typically 40yrs+.
- xxiv. Incinerated waste contains a high proportion of oil-derived plastics. It is just another fossil fuel which has had an intermediate use or function. The act of burning additional fossil fuels to burn these fossil fuels makes no sense and directly contributes to air pollution and greenhouse gas emission. What happens locally with air quality has far reaching effects for the rest of the world, let alone this region and country.
- xxv. The act of burning of fossil fuels to burn fossil fuels makes no sense and directly contributes to air pollution. What happens locally with air quality has far reaching effects for the rest of the world, let alone region and country.
- xxvi. Incineration is known to result in a greater carbon footprint than landfill or recycling. Cambridgeshire County Council (CCC) supports improving recycling rates (identified as a key goal in DEFRA's Resources and Waste Strategy of December 2018).
- xxvii. Waste incinerator emissions vary depending on the mix and toxicity of materials present in the trash being burned and the technology utilised. However, dioxins, hydrogen chloride emissions and greenhouse gas emissions, once biogenic sources are accounted for, have been reportedly higher per unit of electricity generated on average for waste incineration than for coal-fired power plants.
- xxviii. *But we need it don't we?* The appellant argues there is a need, but CCC's advanced draft Local Plan for Minerals and Waste, states that the County has existing capacity to manage existing waste levels until 2036. As recycling technologies over the next decade improve, and with Government policy focusing on increasing recycling rates nationally, this will only lead to a reduction in the need for such a facility. The emerging Local Plan for Minerals and Waste makes no mention of EfW as a necessary waste solution. It is encouraging of moving waste up the waste hierarchy. However, adopting a technology that sits at the bottom of the EU and DEFRA EfW hierarchies, merely one step up the overall waste hierarchy from landfill, does not deliver enough support or sustainable support to the strategies of the draft Local Plan for Minerals and Waste. Furthermore, the draft Local Plan for Minerals and Waste notes the national waste policy drive to net self-sufficiency within each waste management authority (WMA) for waste disposal, and yet the application for this plant relies on importing waste from ten or more other WMAs.

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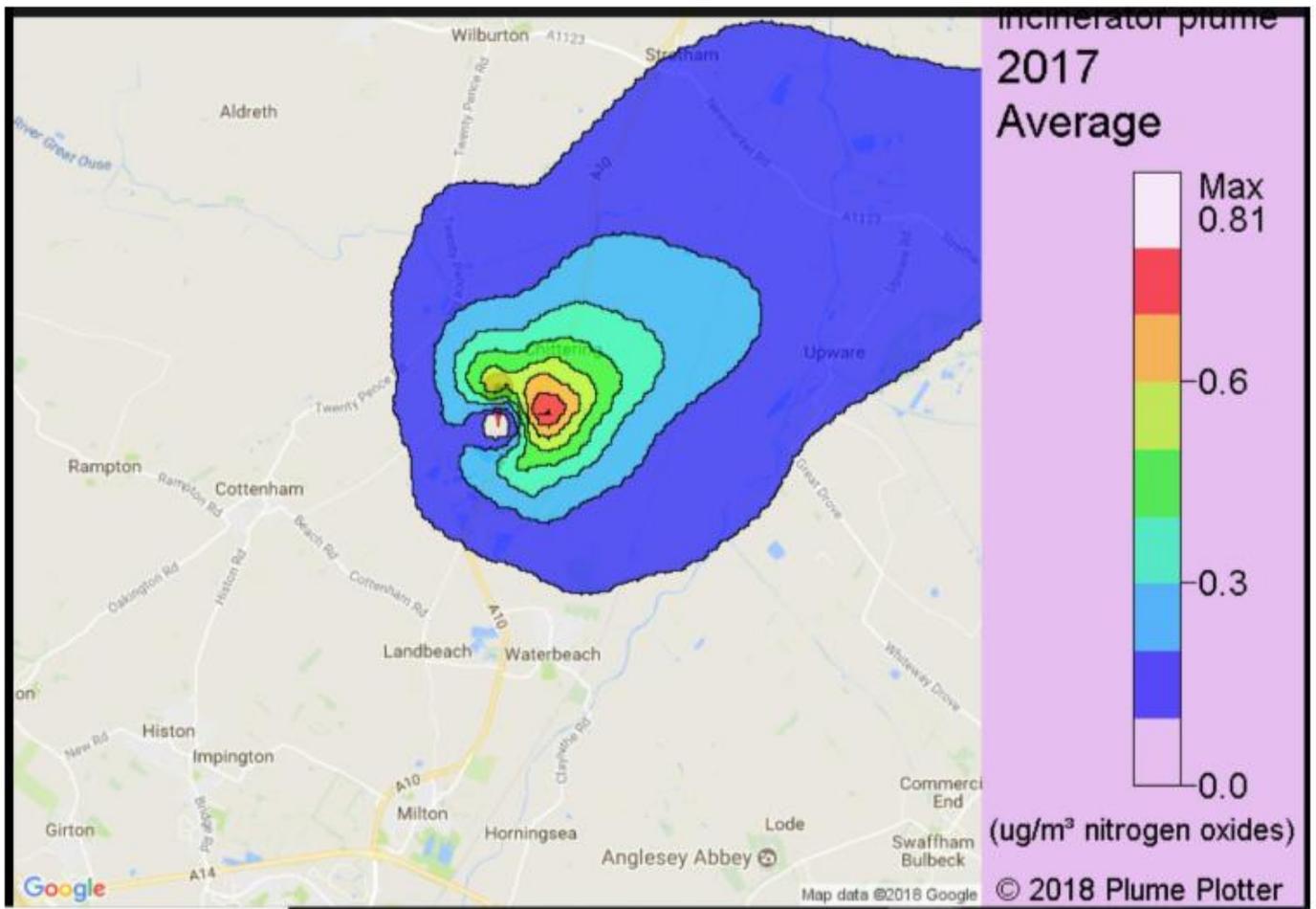
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- xxix. It is also worthy of note that the appellant's WWMP OCRA performance rating with their regulator the Environment Agency is second from worst position.
- xxx. Incineration:
- Creates climate change emissions, while generating energy inefficiently.
  - Destroys valuable materials that could be recycled into new products now or in the future. Recycling saves far more energy than is created by burning waste because it avoids having to make products from virgin materials.
  - When waste is burned in an incinerator, heat is produced which can be used to create electricity. Proponents of 'energy from waste' incinerators claim that the electricity created when waste is burned is a type of renewable energy as it displaces the equivalent amount of electricity to be generated at a power station from fossil fuels.
  - However, the truth is that incineration actually increases the emissions of greenhouse gases responsible for global warming compared to recycling, meaning that energy from waste incinerators contribute to climate change rather than reducing it. Here's why:
    - The level of energy capture in incinerators compared to the potential energy present in the waste is very low.
    - Incinerators effectively burn fossil fuels when plastic is present in the waste stream as plastic is made from oil.
    - When materials are destroyed in incinerators, new ones have to be made to replace them and the extraction and processing of virgin materials uses huge amounts of energy. For example, creating a tonne of aluminium cans, made from the raw material bauxite, takes around five times as much energy as producing a tonne of recycled aluminium cans. A Canadian study estimated that "on average, recycling saves three to five times as much energy as is produced by incinerating municipal solid waste." (Recycling versus incineration, 1992. Sound Resource Management Group Inc. (Copy attached Pollution Appendix 1))
    - The US Government Environment Department (EPA) has developed a model comparing the energy use of recycling and incineration for different materials, and Friends of the Earth has applied this model to components of the UK waste stream. It estimates that recycling and composting household waste might save up to 4.5 million tonnes of carbon emissions each year compared to an alternative scenario of incineration with energy recovery. This would be equivalent to the emissions generated by 55 billion kilometres of vehicle travel in the UK, some 12 per cent of all vehicle kilometres.
  - Clearly the energy captured from waste because incineration is not renewable, and recycling is much better for reducing climate change. When the entire life

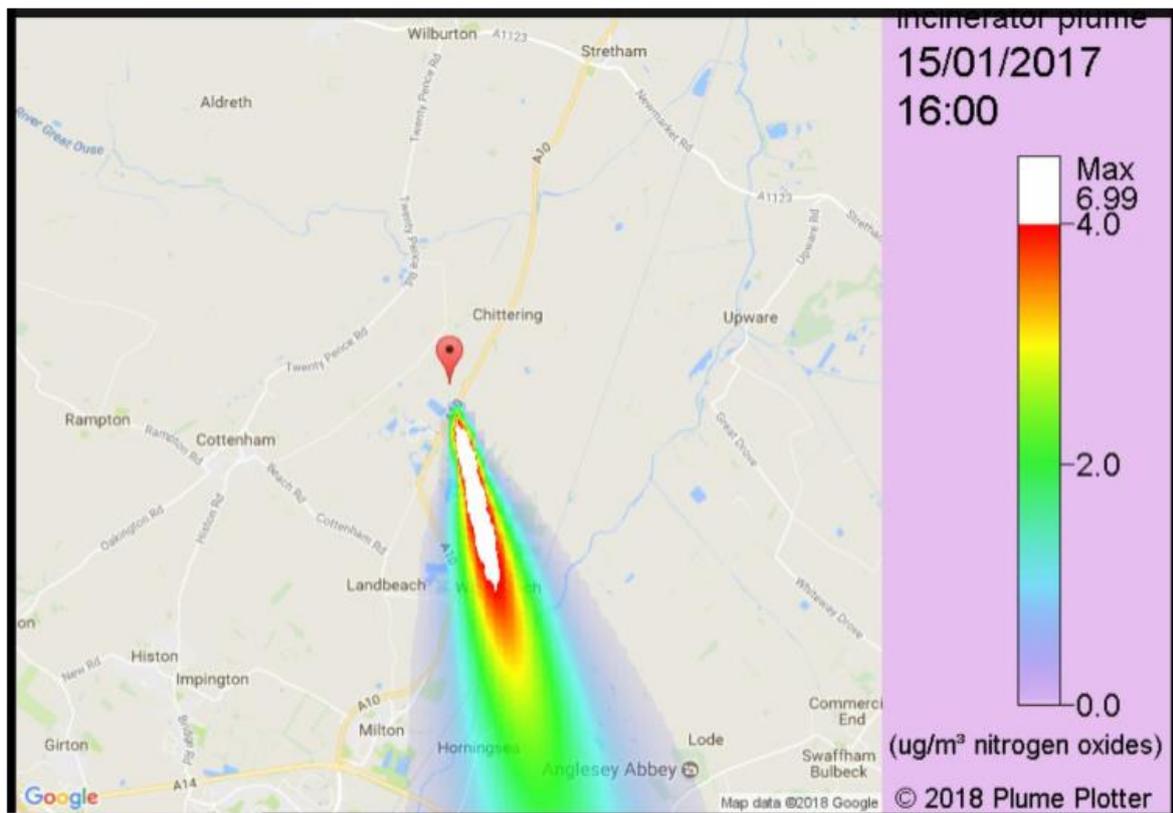
cycle of products is considered, it makes much more sense to recycle secondary materials than extract and process virgin ones. Put another way, capturing the materials in our waste stream is far more productive than merely capturing the energy.

- Doesn't provide an incentive for reducing waste, as incinerators need a minimum amount of rubbish to operate efficiently. Contracts for incinerators are long, requiring waste for 20 years.
  - To deal with our waste sustainably, we need to focus on prevention, reuse, recycling and, for soft organic materials such as food waste, the generation of 100% renewable energy via anaerobic digestion. Eventually, society must achieve zero waste. Zero waste will maximise our resource efficiency and minimise our climate impacts.
  - “No country should contemplate a commercial hazardous waste incinerator without a national programme of cleaner production. Policy measures to achieve this have been well documented by UN agencies and cleaner production initiatives have achieved significant results”. Greenpeace
  - Municipal wastes are the largest dioxin sources in industrialised countries. PVC plastic is probably the most significant source of dioxin generating chlorine in these incinerators. Yet the plastics industry can now recycle PVC. (<https://www.pvc4cables.org/en/sustainability/waste/vinyloop>) Incinerators that burn hazardous waste from industry are also point sources of dioxin.
- xxxi. The proposed plant is only required to filter out and monitor PM10s (particles that are a minimum of 10 microns in size). This is all that the applicant is alluding to when they state they will filter out particulates. Unfortunately, the applicant will not filter out or continuously monitor particles that are smaller, the PM2.5s. These are the most toxic! They are so small that they can be absorbed through cell membranes, and can include organics such as dioxins, mercury, arsenic and cadmium. There is only a requirement for such emissions to be measured for 8 hours twice a year, and this is done by the applicant themselves – there is no independent testing.
- xxxii. Fugitive emissions: Some waste is accidentally released when: - Chemicals are removed from storage containers at the incinerator site; - It is moved to transportation vehicles; and - It is shipped to and moved about within the incineration facility. The proposed site is expected to receive 11,700 trucks/yr. amounting to 218 trucks per week with associated fugitive emissions and congestion effects, on top of trucks already supplying the existing recycling, and composting site. Green Peace: Alternatives To Incineration  
[www.greenpeace.org/international/en/campaigns/detox/incineration/alternatives-to-incineration/](http://www.greenpeace.org/international/en/campaigns/detox/incineration/alternatives-to-incineration/)

- xxxiii. The plume from the 80-meter-high chimney has dispersal of a 16-mile radius. The Cambridge without Incineration (CBWIN) website ([www.cbwin.co.uk](http://www.cbwin.co.uk)), contains a plume generated animation showing the average fallout zone over the period of a year given typical wind direction.



xxxiv. Professional animation showing expected fall out over 1 typical year  
<https://www.youtube.com/watch?v=S2z0yn5Jb-o&feature=youtu.be>



Shows projected reach of emissions fall-out (nitrogen oxides) at ground level. NO is harmful to human health and the environment.  
 Calculated emission fall-out from proposed Cambridge waste incinerator based on last year's weather data for a specific nominal day  
 Wind directions and speeds change on a regular basis and seasonally.  
 Emissions model: AERMOD (Gaussian plume) assuming usual continuous (8760 hours per year) operation at max long-term limits.  
 Weather data source: Cambridge airport, RAF Mildenhall, and upper air data from Nottingham.  
 All incinerator and building details from the applicant's air quality assessment submitted with planning application.  
 Terrain data from OS.

- xxxv. Chimney plumes will be mixing into the air thousands of people of all ages will be breathing across a wide area and the largest concentration will be in Waterbeach where directly opposite and downwind of the proposed WWMP incinerator site, is a committed new town of 12,000 dwellings.
- xxxvi. Toxic ash – landfill still needed
- xxxvii. When mixed municipal waste is burned in an incinerator it does not disappear completely. A large amount of solid residue, bottom ash, is left behind. This is about 30 per cent of the original weight of the waste and occupies 40-50 per cent of the space that compacted unburned waste would. This ash still has to be disposed of in landfill sites.
- xxxviii. Bottom ash may be toxic as it contains some of the heavy metals and dioxins present in the things that were burned, such as batteries. When it is landfilled these pollutants may eventually leak into groundwater from where it is virtually impossible to clean them up. Moreover, in ash form, the toxins are more liable to leach than if they are in unburned waste.
- xxxix. According to the EU Commission, leaching from landfills may well be one of the most important sources of dioxins in the future. This means that society risks creating huge mountains of ashes, containing very large amounts of dioxins, which will be left for future generations to deal with.
- xl. Fine particles fly ash and polluting gases are also left behind after combustion.
- xli. Incineration does not simply make the toxic substances in waste disappear, and as the filtration technology on incinerators improves (which helps to reduce the amount of toxic emissions to air), the concentration of toxic contaminants in the ash increases. Fly ash is undisputedly toxic, and although there is not such a large amount of it (about 3-5 per cent of the original waste by weight and about 5-15 per cent of all the ash produced), it has to be treated with great care. It is classified as 'special waste' and has to be landfilled in very careful circumstances.
- xlii. Recycling of Incinerator Bottom Ash
- xliii. As an example of the toxicity of bottom ash, research was carried out in 1993 for the then Department of Transport that looked into the chemical content of bottom ash from the incineration of MSW and its possible use in road construction.
- xliv. This concluded that due to the high concentration of soluble metals (e.g. lead, zinc and arsenic) and sulphates, incinerator wastes were not suitable for use in road works in their unbound state.
- xlv. However, the current specification used by the Highways Agency permits incinerator bottom ash to be used for road maintenance and construction in cement bound, lower strength road materials. Government research is continuing to extend the use of incinerator bottom ash in construction.
- xlvi. Serious concerns have been expressed that incinerator bottom ash is far from inert and contains dangerous levels of toxic heavy metals and dioxins which can leach out into the surrounding soils posing a threat to the water table, food produce and human

health. There is insufficient evidence that the leaching of dioxins and heavy metals from these

xlvi. Pollution and Ecosystems

- xlvi. Exposure of humans to dioxins in air pollution occurs through breathing and food intake. Dioxins are highly carcinogenic, and this site would need to be designated as a Control of Major Accident Hazards (COMAH) site in accordance with Directive 96/82/EC, aka the Sveso Directive. This does not seem to have been considered by the applicant.
- xlix. Dioxins released from an incinerator can be readily deposited upon and adsorbed by flora, consumed by grazing animals and fish and are able to dissolve in water.
- i. The Soil Association state *“Association supports the European Waste Hierarchy of the EU Waste Framework Directive which states that the order of priority should be to first prevent and reduce and then to reuse, recycle and recover – before burning waste. We believe that incinerators are a disincentive for these higher priorities. You can read more about how this informs UK legislation in the Environmental Permitting Regulations here. Furthermore, burning wastes at high temperatures results in the release of heavy metals, acid gases, toxic particulates and pollutants through atmospheric emissions and ash production. Although improvements in cleaning technologies have meant reductions in pollution rates, the Soil Association is concerned about remaining levels of pollution, particularly of reports that regulated levels may be breached due to temperature fluctuations and at start-up and shut down. This could result in the contamination of soils, water and food”*. Packer, 2018, Soil Association Please find enclosed some support documents. Firstly, Water birds as bioindicators of wetland heavy metal pollution. Key for nearby Wicken Fen particularly as birds are susceptible to mercury poisoning.”  
[https://www.researchgate.net/publication/271617352\\_Waterbirds\\_as\\_bioindicators\\_of\\_wetland\\_heavy\\_metal\\_pollution](https://www.researchgate.net/publication/271617352_Waterbirds_as_bioindicators_of_wetland_heavy_metal_pollution)
  - ii. Inadequate environmental and ecological impact assessments (see section on Cumulative Impacts) mean this proposal directly contravenes the National Planning Policy Framework, NPPF. The risk of harm to ecological systems and especially those in nearby SSSI/Ramsar sites has not been robustly conducted, as has been strongly stated by the consultees mentioned above. To proceed with development is to risk these delicate and precious eco-systems.
  - iii. The area surrounding the proposed plant is the boundary between the clay uplands and the fen. Wicken Fen SSSI Ramsar, Anglesey Abbey and the Cam Washes SSSI are within the 10-16km impact zone. These areas support many rare species of biota and living systems. The Cam Washes and Wicken Fen and Anglesey Abbey work in tandem to support the flora and fauna and water balance on the river network and surrounding fenland. The unique soils of the area are preserved too. The Increases in pollution and impact on air quality will harm ecology and especially vulnerable species (through water contamination or soil erosion, or air pollution etc). The proposal does not in any way promote the preservation and restoration of local

priority habitats or protected ecological networks and river networks that are the responsibility of Natural England, the National Trust and the Wildlife Trust.

- liii. In addition, Wicken Fen has embarked on a significant expansion, which will see the National Trust's first and oldest nature reserve grow by 100 hectares, the southern and eastern boundary of which will bring Wicken considerably closer to the incinerator site and immediate emissions fall-out zone.
- *“The Wicken Fen Vision is an ambitious plan to create a diverse landscape for wildlife and people stretching from Wicken Fen to the edge of Cambridge*
  - *The first two acres of Wicken Fen were purchased by the National Trust for £10. We have been looking after this special place, home to over 9,000 species, since 1899.*
  - *Less than 1% of original fen survives in East Anglia, of which Wicken Fen is a fragment. Despite growing to 358 hectares, the nature reserve was too small and isolated to guarantee the survival of all its rare and numerous species, and under pressure from the increasing numbers of people seeking its peace and tranquillity.*
  - *After 100 years of caring for Wicken Fen, it needed an exciting and pioneering plan to take it into the next millennium. Launched in 1999, the Wicken Fen Vision is a 100-year plan to create a diverse landscape for wildlife and people. An historic landscape that will provide a space to breathe, think and explore for the modern world. By 2099, we will increase the nature reserve around Wicken Fen to an area of 53 square kilometres.*
  - *By restoring natural processes, careful management of water and grazing will allow the land to evolve a mosaic of habitats for a wide variety of abundant wildlife. People will be able to enjoy access and recreation opportunities across a beautiful, tranquil wilderness, with opportunities for volunteering, education and interpretation.”* Wicken Fen National Trust  
<https://www.nationaltrust.org.uk/wicken-fen-nature-reserve/features/wicken-fen-vision>
- liv. Air Pollution and Human Health
- lv. As stated above, human exposure to dioxins contained in air pollution, occurs through breathing and food intake. Once in the body dioxins are only excreted very slowly and build up in fatty tissues. Studies now suggest that people in the US and some European countries now carry dioxins and furans at or near those levels suspected of causing health effects in humans.
- lvi. Reports on possible health effects:
- lvii. A UK report entitled “The Health Effects of Waste Incinerators” by the British Society for Ecological Medicine was conducted in 2005 and then updated in 2008 (copy attached Pollution Appendix 2):

The Preface to this report states:

*“Since the publication of this report, important new data has been published strengthening the evidence that fine particulate pollution plays an important role in both cardiovascular and cerebrovascular mortality (see section 3.1) and demonstrating that the danger is greater than previously realised. More data has also been released on the dangers to health of ultrafine particulates and about the risks of other pollutants released from incinerators (see section 3.4). With each publication the hazards of incineration are becoming more obvious and more difficult to ignore.”*

A further, telling, quote from this report states:” .....Large studies have shown higher rates of adult and childhood cancer and also birth defects around municipal waste incinerators: the results are consistent with the associations being causal. A number of smaller epidemiological studies support this interpretation and suggest that the range of illnesses produced by incinerators may be much wider”

<http://www.cambridgefriendsoftheearth.co.uk/Incineration.pdf>

[http://opac.invs.sante.fr/doc\\_num.php?explnum\\_id=676](http://opac.invs.sante.fr/doc_num.php?explnum_id=676)

- Iviii. The European environment Agency says “Poor air quality adversely affects human health, the environment, and the climate. Both short-term and long-term exposure to air pollution harms health. This harm occurs either via direct exposure to air pollutants, or indirectly via pollutants transported through the air, deposited, and then accumulated in the food chain. Air pollution also harms ecosystems by contributing to eutrophication and acidification of water and soil, leading to loss of flora and fauna. Air pollution can also harm agricultural crops and forests causing yield losses. Furthermore, certain air pollutants affect the climate system by triggering positive or negative changes in global radiative forcing (see SOER 2015 briefing on the air and climate system).”*
- <https://www.eea.europa.eu/soer-2015/europe/air>

*lix. They also say “Despite considerable improvements in past decades, air pollution is still responsible for more than 400 000 premature deaths in Europe each year. It also continues to damage vegetation and ecosystems.*

*lx. Continued improvements in air pollution levels are expected under current legislation, but beyond 2030 only slow progress is expected. Additional measures are needed if Europe is to achieve the long-term objective of air pollution levels that do not lead to unacceptable harm to human health and the environment.”*

This proposal inhibits progress.

- lxi. Toxic air is an invisible threat. Planners have a responsibility alongside government and local authorities, to protect those at highest risk (babies, children and young people, people with chronic disease). Children today deserve better. They cannot wait another 10 years for the air to become safer to breathe.**

Cambridge Without Incineration CBWin Community Response, May 2019

Please visit our website at: <https://www.cbwin.co.uk/>

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- lxii. This is the common theme of the numerous influential publications that have come forward about UK air pollution, in the 18 months since the appellant launched their application:
- “Air pollution: outdoor air quality and health”, NICE, June 2017
  - “Improving air quality”, Joint Committees of Parliament, March 2018
  - “Annual Report of the Chief Medical Officer 2017, Health Impacts of All Pollution - what do we know?”, CMOH, March 2018
  - “A Breath of Toxic Air – UK Children in Danger”, UNICEF, June 2018.
  - “Clean Air Strategy 2018”, DEFRA consultation, May 2018
  - “Reducing UK emissions, 2018 Progress Report to Parliament”, UK Committee on Climate Change, June 2018
  - “Clean Air Strategy 2019”, DEFRA, January 2019
  - “Healthy Air for Every Child – A Call for National Action”, UNICEF, February 2019
  - “Cardiovascular disease burden from ambient air pollution in Europe reassessed using novel hazard ratio functions”, European Heart Journal – Lelieveld et al, March 2019
  - “Air Quality: National Air Pollution Control Programme” DEFRA, March 2019
- lxiii. This proposal directly interferes with CCC adhering to the objectives and spirit of policy changes that have occurred as a result of some of these publications.
- lxiv. The Guardian this month created an interactive piece that shows the wide-ranging damage from air pollution to our bodies and the types of people who will be living closest to this site. We recommend this useful and insightful source. It is not possible to print it or store it as a separate appendix because of the IT build, so please view it via this link:
- <https://www.theguardian.com/environment/ng-interactive/2019/may/17/air-pollution-may-be-damaging-every-organ-and-cell-in-the-body-finds-global-review>
- lxv. Back in 2008, the EC Air Quality Directive Framework established a drive to reducing air pollution. This proposal prevents CCC adhering to this directive.
- lxvi. DEFRA “Department for Environment, Food and Rural Affairs (Defra) Eastern region is among 38 of the UK’s 43 air quality zones, which are still breaching EU limits. Cambridge is experiencing a commercial and housing boom which is adding further to air quality issues due to rapidly increasing construction, vehicle, household and commercial emissions”.
- DEFRA Energy from waste A guide to the debate February 2014 (revised edition)
- [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/284612/pb14130energy-waste-201402.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284612/pb14130energy-waste-201402.pdf)

- lxvii. In 2012 DEFRA concluded that "*The main sources of mercury in the UK are emissions from generation of electricity and heat production, waste incineration, the manufacture of chlorine in mercury cells and the combustion of coal and other fuels*". Then other toxins in the table, some are cited to be caused by, "*industrial combustion processes including energy production*"  
<https://core.ac.uk/download/pdf/386514.pdf>
- lxviii. EC Statement on Air Pollution 2015  
*The UK still breaches legal air pollution limits. According to EC reports on tightening levels state that reducing air pollution produces reductions in ecosystem damage due to acidification and that the impacts of air and water emissions on the coast and sea would be reduced. "Poor air quality adversely affects human health, the environment, and the climate. Both short-term and long-term exposure to air pollution harms health. This harm occurs either via direct exposure to air pollutants, or indirectly via pollutants transported through the air, deposited, and then accumulated in the food chain. Air pollution also harms ecosystems by contributing to eutrophication and acidification of water and soil, leading to loss of flora and fauna. Air pollution can also harm agricultural crops and forests causing yield losses. Furthermore, certain air pollutants affect the climate system by triggering positive or negative changes in global radiative forcing". European Environment Agency Air Pollution*  
<https://www.eea.europa.eu/soer-2015/europe/air>

Currently, the United Kingdom is being prosecuted by the EU for its failure to comply with Air Pollution limits.

- lxix. Many studies looking at environmental and health effects of waste incineration over the last 20 years have concluded that monitoring of incinerators has been unsatisfactory in the lack of rigor, the infrequency of monitoring, the small number of compounds measured, the levels deemed acceptable, and the absence of biological monitoring. Approval of new installations has depended on modelling data, supposed to be scientific measures of safety, even though the method used has no more than a 30% accuracy of predicting pollutants levels correctly and ignores the important problems of secondary particulates and chemical interactions.
- lxx. Public Health England's statement on health effects of MCPs concludes that there is risk but that the risk is unlikely to be significant.
- lxxi. However, the Small Area Health Assessment Unit (function of PHE) is still conducting ongoing research into health effects of incinerators on infants and new-born babies, known to be the most vulnerable in society to effects of air pollution. This research is yet to publish.  
<http://www.sahsu.org/content/incinerators-study>

- lxxii. Increasing the volume of PM2.5 in the atmosphere is directly linked to negative health outcomes as well reported in the landmark global air quality study 6-Cities. (Dockery et al, 1993 Association between Air Pollution and Mortality in Six U.S. Cities)
- lxxiii. The EU Air Quality Directive requires responsible authorities to reduce air pollution and improve air quality not increase pollution and reduce air quality. Directive 2008/50/EC, paragraph 11 states:  
*“Fine particulate matter (PM2,5) is responsible for significant negative impacts on human health. Further, there is as yet no identifiable threshold below which PM2,5 would not pose a risk. As such, this pollutant should not be regulated in the same way as other air pollutants. The approach should aim at a general reduction of concentrations in the urban background to ensure that large sections of the population benefit from improved air quality. However, to ensure a minimum degree of health protection everywhere, that approach should be combined with a limit value, which is to be preceded in a first stage by a target value.”*
- lxxiv. To meet exposure reduction objectives, the limit values for PM2.5 have been set as “reducing” values (ANNEX XIV of Directive 2008/50/EC).
- lxxv. The UK is currently breaching EU Directives on air quality and this local decision therefore has a national and global significance as well as a local one.
- lxxvi. The Environment Agency accepts 'Modern Incinerators' can produce Dioxins many times over the permitted limit for months at a time, while operating as "Normal".
- lxxvii. The appellant has not provided robust cumulative pollution calculation effects over the lifetime of the plant. Oxides of Nitrogen are measured continually but other pollutants including (fine particulates, dioxins and vapours of Arsenic, Cadmium, Mercury, Chromium) will only be checked for up to 8 hours twice per year.
- lxxviii. At the community led public meeting in March, Mr Richard Burton Independent Environment Consultant expert provided an insightful explanation of the limitations of incineration emission filtration and emissions monitoring. This can be listened to here and pertinent points of the audio tape are summarised below:  
 Full Audio: <https://tinyurl.com/yaom4sdz>
- 15:45 Richard Burton Independent Environment Consultant expert introduction
- 18.24 Emissions Monitoring – ‘Continuous monitoring’ is a misleading term used by the waste industry to describe the monitoring of less harmful emissions but Arsenic, Cadmium, Chromium, Mercury will be monitored for only 8hr twice a year (4 times a year in the first year only)- EA stipulate this in permits.
- 25.40 Dioxins are some of the most dangerous - Can cause problems with nausea, vomiting problems with nervous system, etc. They can be deposited on the land and enter the food chain.

27.00 Chemicals are destroyed in burning and then reform as they cool to a certain extent – basic chemistry. That is why the fly ash must go to hazardous landfill because it is full of dioxins. Temperature is continuously measured because the temperature must be right to destroy the dioxins and is monitored. Freedom of information requests from other incinerators show temperatures frequently fall below the 800 degrees requirement to burn dioxins.

The spot checking underestimates the dioxins by up to 5 x , 50 x and (1,000 times at start up).

30.20 The 'best available technique' is not the best available technique – it's just an industry phrase. The control of emissions to air, land and water under the Environmental Permitting Regulations is qualified by the cost-effectiveness of technology. So, more fully, they should be called "best available cost-effective techniques".

The appellant has not disclosed what make, model and specification of filters they will be using for anyone to check if they can claim that their preferred technology is the 'best'.

1:10:00 DEFRA and Public Health England reviewing ultra-fine particulate pollution and health

1:14:00 Why the appellant is not investing in greener more sustainable solutions.

1:24:00 Frequency of EA monitoring

1:29:00 What energy will the appellant provide as a result

1:35:00 Business waste

1:40:00 Evidence that operators are not obliged to provide energy to local communities

1:46:00 Low recycling rates Cambridge

2:14:00 Historic and landscape visual impact

Mr Burton and the appellant's air quality contractors at the meeting clarified several key facts:

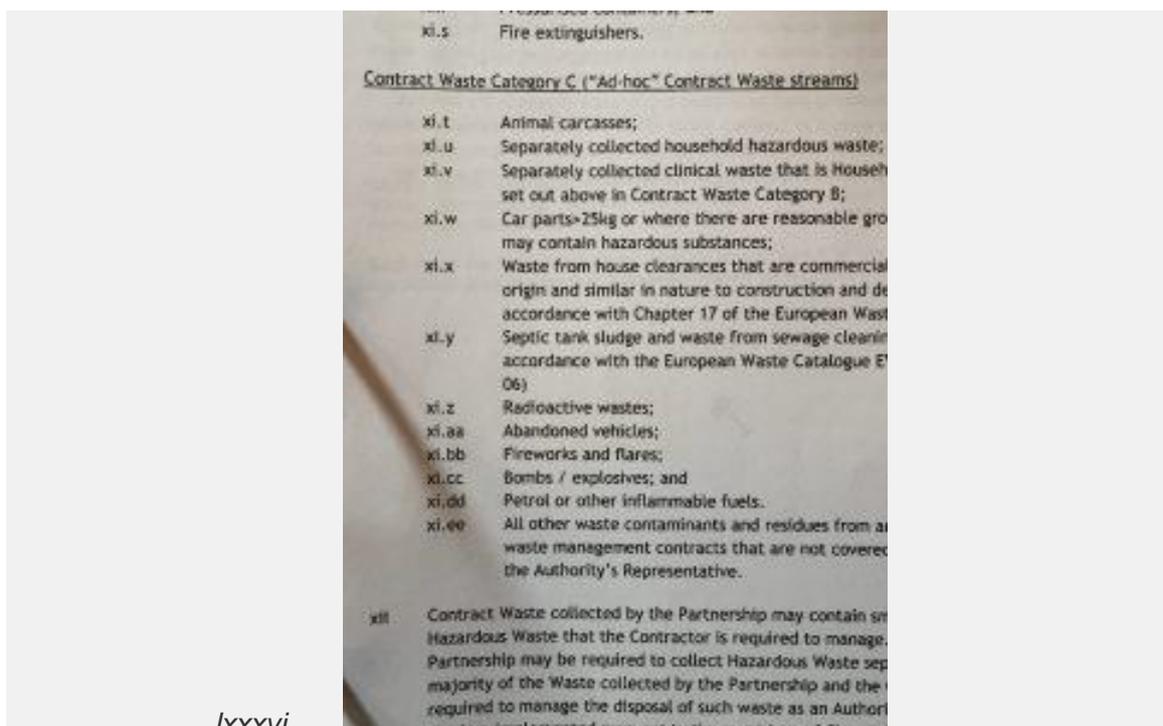
- Small particulates have health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed. See various expert health authorities' statements below that include this key fact.
- The appellant's modelling presumes many variable factors to be fixed and omits cumulative effects of some wider sources of pollution. E.g. cumulative effect of fugitive emissions of 100
- The Environment Agency permit is the only tool to regulate emissions, but UK EA incineration permits are considered in the industry to fall far short of optimum standards for minimising health and environmental risk. This was

also agreed by the appellant's subcontractors at the meeting. You can listen to this part on the audio at the above link.

- Incinerator developers often compare incinerator's CO<sub>2</sub> emissions per unit energy i.e. CO<sub>2</sub>e/kWh to the UK wide energy mix CO<sub>2</sub>/kWh, and whilst it is more efficient (lower carbon) compared with coal and gas, they then apply this figure to the next 25 years to claim CO<sub>2</sub> avoidance. This is wrong as the UK is becoming more carbon efficient each year, and it also breaks DEFRA's methodology
- The notion that sending waste to landfill results in GHG emissions ignores several factors, including the ability of landfill to store some of the carbon and the practise of capturing landfill gas and using it to generate energy.
- Dioxin emissions are often higher than expected in modelling: Numerous studies on dioxin and furan emissions and the legal requirement to monitor 4x/yr for 6-8 hours means that emissions are underestimated significantly. <http://www.ejnet.org/toxics/cems/dioxin.html> This site also includes numerous studies showing greater emissions during start-up and shut down which are extremely concerning. The developer's claims that start up and shut down emissions "do not represent typical conditions", and "are of an unpredictable frequency" does not justify excluding them from modelling and raises serious concerns.
- When correcting 2 flaws in the applicant's Carbon Analysis (the treatment of biogenic carbon sequestration in landfill and the electricity grid offset) the applicant's own scenario for electricity only incineration with 50% biogenic carbon shows the proposal to be 30,723 tonnes of CO<sub>2</sub>e a year worse than sending the same waste untreated to landfill (and 21,336 tonnes of CO<sub>2</sub>e worse than sending the same waste untreated to landfill even if heat were to be exported from the proposed Waterbeach incineration facility).
- The appellant plans to only place human impact monitors upwind of the incinerator (their HI Monitors map showing 99% receptors positioned west and south west of the plant with typical south westerly prevailing winds). Only 1 is positioned at a residential area: at the north of Waterbeach but none where a proposed development of 12,000 homes is committed. They are not positioned at ground level either (due to cost effective choice of technology and in case 'a deer knocked it over') where the most accurate monitoring of pollution in terms of food chain and human health impact is required. This biased placement of receptors will significantly undermine monitoring. Basic maths suggests that to provide fair assessment, impact monitors should be positioned at frequent equidistant locations in a full radius of a facility.
- Emissions Monitoring – 'Continuous monitoring' is a misleading term used by the waste industry to describe the monitoring of less harmful emissions but Arsenic, Cadmium, Chromium, Mercury will be monitored for only 8hr twice a year (4 times a year in the first year only)- EA stipulate this in permits.

- Chemicals are destroyed in burning and then reform as they cool to a certain extent – basic chemistry. That is why the fly ash must go to hazardous landfill because it is full of dioxins. Temperature is continuously measured because the temperature must be right to destroy the dioxins and is monitored. Freedom of information requests from other incinerators show temperatures frequently fall below the 800 degrees requirement to burn dioxins. Start up and shut down result in significant variances in dangerous particulate pollution and are not factored into the applicant's emissions reports. Spot checking underestimates dioxins by up to 5 x , 50 x and (1,000 times at start up).

- lxxix. 12. 'Best available technique' is not the best available technique – it's just an industry phrase. The control of emissions to air, land and water under the Environmental Permitting Regulations is qualified by the cost-effectiveness of technology. So, more fully, they should be called "best available cost-effective techniques".
- lxxx. Basic EA permit standards mean it doesn't therefore have to be 'BEST IN CLASS'.
- lxxxi. Unknown composition of waste to be burned:
- lxxxii. CBWin are concerned that because the appellant has to date been very guarded about what specific wastes it will burn in its contract with CCC let alone its' commercial contracts, we strongly recommend the appellants preferred waste types are included in the appeal investigations and waste types agreed formally within the appeal. We understand that the Env Permit will cover waste types, but we are calling for transparency during the appeal because the nature of waste types directly influences odour, air quality and wastewater, and site safety and traffic activity. As such the appellant's EIAs will need to be carefully scrutinised because they have been entirely based on a presumption of residual black bin waste and non-descript 'construction and demolition and commercial waste'.
- lxxxiii. The Croydon incinerator company has entered a clause in its contract to burn radioactive waste among other contentious wastes, and the public were unaware of this late change (see image below).
- lxxxiv. The Croydon incinerator company has entered a clause in contract to burn radioactive waste among other contentious wastes, and the public were unaware of this late change (see image below).
- lxxxv. The MCP contract includes radioactive particles – Radioactive particles cannot be destroyed or made less radioactive just by burning. The radioactive waste should be "concentrated and contained" so it can't get into the environment. Instead, in Croydon it is "diluted and dispersed" by incineration.



*lxxxvi.*

The contract clause which demands that Viridor be able to dispose of radioactive waste at Beddington Lane

- lxxxvii.* Studies show high levels of cancer near nuclear plants where radwaste incinerators operate and reactors vent radioactive gases into the air. Radioactive liquids are also discharged into the sea, where particles get resuspended into the air, breathed in by local people.  
<https://insidecroydon.com/2011/11/14/radioactive-and-nuclear-waste-included-in-incinerator-deal/>

*lxxxviii.* Pollution Abatement Technology

- lxxxix.* The appellant at various exhibitions claims that “99.9% of dangerous emissions will be filtered out”. Their publications have stated “no danger to human health”. They have provided no evidence to support these statements.
- xc. The appellant refused to disclose the specification of the abatement technology (bag filters) that they intend to use (manufacturer, model or spec) despite our members asking numerous times. They say the abatement technology specification has not yet been decided. Although it raises the question how then they can produce reliable predicted emissions calculations.
- xci. The appellant did inform one of our members of two likely manufacturers of abatement technology that they have involved in other EfW sites. We did some investigations with one of these suppliers Lodge Cottrell and discovered the following, with worrying sections highlighted.

- **Question 3. What models of bag filter (if any) do you make that can trap 100% particulates? If possible, their spec profile would be useful to see please.**
- **It is not possible for a fabric filter to remove 100% of the dust particles.** Any combustion process will need the process gas to exit the system to bring fresh oxygen rich air into the process. **Therefore, there cannot be a solid 100% sealing barrier. As such, very fine particles will still escape the bag filter and be emitted.** Currently the fabric filters are around 99.9% efficient in removing particulates from the process gas.  
(see Pollution Appendix 3)

xcii. We sought professional Environmental Consultant advice. What this information means is:

- They quantify the losses of the larger particles, but as FOIRs have shown, they cannot quantify losses for the smaller particles.
- As usual, they make claims but without any evidence. Or perhaps there is evidence that does not aid them.
- A lack of evidence and wishful thinking isn't a good basis upon which to build a potentially harmful incinerator.
- They cannot argue most particles are captured when they cannot measure!
- An adage of environment management is that if you cannot measure or monitor, you cannot manage.
- Imagine if you break down anything into microscopic particles. You are left with thousands of billions of units of the original material. Then multiply that by the 10s or 100s of thousands of tonnes that will be received. Even if only 1% or 0.1% are released you're left with a colossal number of particles.
- There is no evidence that we are aware of that shows that you can maintain airflow and capture 99.99% of virus-sized particles. And if you could, they would be shouting about it. Instead they give qualitative unsubstantiated statements.
- That's where the 'Precautionary Principle' comes in. If you cannot show there is no harm, with a reasonable level of certainty, then you should not proceed. "

Furthermore, toxic and dioxin release is entirely possible when incinerator bottom ash (IBA) and fly-ash are transferred for removal from the site for specialist hazardous treatment. It is well accepted that it is not possible to completely prevent leachate of such during transfer, even during closed-housing transfer.

In addition, alarmingly the control of toxic emissions at the incinerator is to be according to the principle of 'as low as reasonably practicable', (ALARP). The EU

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Commission has challenged use of this principle, and some Directives disallow its use on the grounds that cost is not a factor to be taken into account. The possibility of toxic elements and dioxins being released must be eliminated before this plant can be granted approval. Limiting them to whatever levels the appellant feels they can afford is wholly unacceptable.

xciii. Impacts of Air Pollution

xciv. The majority of published epidemiological studies relate to older plants. With the more recent European Union and national regulations many older plants have closed or been fitted with more stringent emission controls. While this is obviously desirable from a public health perspective, it does raise issues of the relevance of studies around older plants, to populations affected by more modern facilities. Proponents of new facilities tend to dismiss the older research as irrelevant.

xcv. Opponents take a contrary view arguing, not unreasonably, that similar claims of safety were made in relation to those older facilities when they were operating; that the risk assessments relied upon to show new incinerators are safe would not, if applied to the older plants, reveal the levels of impacts reported in the literature thus indicating that the risk assessments do not validate in real-world situations; and that epidemiology, by its nature, involves retrospective studies. Furthermore, the modern incinerators tend to be much larger than those operated historically so that although the emissions concentrations have reduced the total mass of pollutant emissions may even increase. Although not such a high contributor to national PM inventories incinerators appear to be very important local sources of particulate contamination. Particulate Emissions and Health, Proposed Ringaskiddy Waste-to-Energy Facility, Professor C. Vyvyan Howard, June 2009

xcvi. The appellant's claims of 'no dangers' conflicts with Public Health England who state: "it is not possible to rule out adverse health effects from modern, well managed incinerators". This statement is often referred to by the appellant as 'proof' that waste incineration is 'safe'.

xcvii. The PHE report speaks of 'not possible to rule out', '*when well managed*' (see 'Disreputable Operator' section), '*it is possible.... could have an impact on health*', '*likely to be small*'.

*"While it is not possible to rule out adverse health effects from modern, well managed incinerators make only a small contribution to local concentrations of air pollutants. It is possible that such small additions could have an impact on health but such effects, if they exist, are likely to be very small and not detectable".* PHE, The Impact on Health of Emissions to Air from Municipal Waste Incinerators 2009

PHE do not say waste incineration is 'safe' as the appellant claims.

Risk exists and while assumed to be small it is unconfirmed, and specifics are unknown.

That is a big risk to take for the most vulnerable members of society who are most affected by air pollution and most defenceless (unborn babies, children and people living with chronic diseases).

- xcviii. The appellant's HIA for example shows that for a child the cadmium, chromium and nickel Max Daily Intake (that sourced from existing dietary intake) exceeds the TDI (tolerable daily intake- amount considered safe before causing harm). However, they justify the risk by saying 'the process contribution is exceptionally small, and the exceedance reflects the fact the Max Daily Intake is over 100% of the TDI'.
- What algorithms have been used to assess the dietary habits of local children to conclude the risk is negligible are unknown. Why only children of 20kg (average age 6yrs) were selected and younger children, babies and unborn babies omitted, is also unknown.
  - Bearing in mind that one of the closest buildings on the neighbouring committed new-town of 6,500-12,000 dwellings, will be a primary school which will be 500-800m downwind of the incinerator, directly in its shadow. This alone should render the application wholly unacceptable.
  - WRAP.org.uk states "Ideally the site should not be located within proximity to:
    - Residential properties; (Waterbeach barracks development committed 6,500-12,000 homes opposite the application site)
    - School or colleges; (Within 500-800m of 1 primary school and within 2miles from 4-6 new schools on committed New-Town)

WRAP (Waste and Resources Action Programme) are the UK's  
Circular Economy & Resource Efficiency Experts

- xcix. The fact that this site should be designated as a COMAH site, also indicates an avoidable and unacceptable risk to the surrounding planned new and existing settlement of Waterbeach.
- c. The appellant's claims in their HIA and at the meeting contradict numerous reports by leading health experts and authorities about fine particle air pollution which is globally accepted as a known side effect of waste incinerators and a major leading cause of premature death generally.
  - ci. Claiming to meet current EU and national limits is clearly not acceptable when the source of those limits, the Air Quality Directive, clearly states that they are part of an exposure reduction objective and there is no safe limit.
  - cii. The increase in mortality risk associated with long-term exposure to particulate air pollution is one of the most important, and best-characterised, effects of air pollution on health.
    - The Annual Report of Chief Medical Officer on Health Impacts of Air Pollution '*Health Impacts of All Pollution – what do we know?*' Dame Sally Davies "Air pollution is not just environmental issue; government need to bring in tougher standards to tackle toxic air. Air pollution is thought to cause and contribute to as many as 40,000 deaths a year in the UK already, especially among

*vulnerable people such as those with existing respiratory problems, and young children, whose health can be permanently damaged by exposure to the pollutants at a young age”*

The government’s air quality plan has been condemned as so poor as to be unlawful by the high court. Addressing pollution is therefore disease prevention. Pollution should be recognised for what it is – a significant cause of non-communicable diseases like cardiovascular disease, cancer and asthma.

<https://www.airqualitynews.com/2018/03/02/chief-medical-officer-calls-tougher-air-pollution-standards/>

- World Health Organisation 2016 Ambient air quality and health *“Small particulates have health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed.”* Therefore, the WHO 2005 guideline limits aimed to achieve the lowest concentrations of PM possible. These are: PM2.5: 10 µg/m3 annual mean; 25 µg/m3 24-hour mean PM10: 20 µg/m3 annual mean; 50 µg/m3 24-hour mean [http://www.who.int/en/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](http://www.who.int/en/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)
- Six Cities Landmark 20yr Air pollution study 2018 update states: “mortality risk was strongly associated with fine particulate concentrations (particles smaller than 2.5 microns)” <https://www.hsph.harvard.edu/news/features/six-cities-air-pollution-study-turns-20/>
- Royal College of Physicians and Royal College of Paediatrics and Child Health ‘Every breath we take: the lifelong impact of air pollution’ 2017 Chair Professor *Holgate* ***“We now know that air pollution has a substantial impact on many chronic long-term conditions, increasing strokes and heart attacks in susceptible individuals. We know that air pollution adversely effects the development of the foetus, including lung development. And now there is compelling evidence that air pollution is associated with new onset asthma in children and adults. When our patients are exposed to such a clear and avoidable cause of death, illness and disability, it is our duty to speak out”.*** <https://www.southampton.ac.uk/news/2016/04/health-impact-of-air-pollution.page> <https://www.rcpch.ac.uk/news/blog-every-breath-we-take-lifelong-impact-air-pollution>
- Joint Parliamentary Committees Report on Air Quality – – unprecedented joint parliamentary committee guidance that directs and shapes existing local City and County Council and SCDC air quality management plans: all of which have objectives to reduce not increase air pollution

*“Air pollution cuts short an estimated 40,000 lives across the country each year, costing the UK an annual £20 billion. Children, the elderly, and those*

*with existing medical conditions are at the greatest risk. The UN special rapporteur recently said he was “alarmed that despite repeated judicial instruction, the UK government continues to flout its duty to ensure adequate air quality and protect the rights to life and health of its citizens. It has violated its obligations” ... The Government cannot continue to put public health at risk”*

<https://publications.parliament.uk/pa/cm201719/cmselect/cmenvfru/433/433.pdf>

<https://wintoncentre.maths.cam.ac.uk/news/does-air-pollution-kill-40000-people-each-year-uk>

- Current UK Air Quality Directive: *“Fine particulate matter (PM2.5) is responsible for significant negative impacts on health. Furthermore, there is yet no identifiable threshold below which PM2.5 would not pose a risk. As such, this pollutant should not be regulated in the same way as other air pollutants. The approach should aim at a general reduction of concentrations in them urban background to ensure that large sections of the population benefit from improved air quality. However, to ensure a minimum degree of health protection everywhere, that approach should be combined with a limit value, which is to be preceded in a first stage by a target value.”*
- Underpinned by the current EU Ambient Air Quality Directive (2008/50/EC) which sets legally binding limit values for concentrations of major air pollutants that impact public health, such as particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO2) and for PM2.5 these are reducing limit values. The directive also sets limit values for a range of other pollutants that waste incinerators produce. <https://uk-air.defra.gov.uk/air-pollution/uk-eu-policy-context>
- COMEAP Committee on the medical effects of air pollution 2009 “Results of large cohort studies suggest that the effect of long term exposure to air pollution on mortality is most closely associated with ambient levels of fine particulate matter (PM2.5) and that there is no evidence for a threshold below which effects would not be expected.”
- “Results of large cohort studies suggest that the effect of long-term exposure to air pollution on mortality is most closely associated with ambient levels of fine particulate matter (PM2.5) and that there is no evidence for a threshold below which effects would not be expected.”
- Recognising the significant impact that poor air quality can have on health, the Public Health Outcomes Framework includes an indicator relating to fine particulate matter (PM2.5). At its heart, the indicator for air pollution is about raising awareness of the effect of air pollution on public health. It is intended to encourage promotion of the need for local, regional and national actions to reduce air pollution. This is intended to enable Directors of Public Health to prioritise action on air quality in their local area to help reduce the health

burden from air pollution. <https://www.gov.uk/government/groups/committee-on-the-medical-effects-of-air-pollutants-comeap>

- DEFRA's Local Air Quality Management Policy Guidance 2016. *"The impact of exposure to particulate matter pollution (PM2.5) is estimated to influence mortality equivalent to nearly 29,000 deaths in the UK. Improving air quality will also reduce damage to water quality, biodiversity and crops. Oxides of Nitrogen can contribute to eutrophication of waterways affecting aquatic life. They can react in the atmosphere with volatile organic compounds to create ground level ozone which damages crops as well as having its own health impacts. Tackling air pollution is a priority for Government. As PM2.5 is a pollutant for which there is no recognised safe level"* <https://laqm.defra.gov.uk/documents/LAQM-PG16-April-16-v1.pdf>
- Current UK Air Quality Standards Regulations 2010 "the duty to monitor and ensure air quality falls upon the Secretary of State" <http://www.legislation.gov.uk/ukxi/2010/1001/contents/made>
- Defra report 2015 - Draft plans to improve air quality in the UK 4.3.2. 106 *"New infrastructure and other developments need to be sensitively planned to ensure they do not add to, or cause, significant additional air quality issues.*  
*"Air quality considerations are firmly embedded within national policy which includes strong protections to safeguard people from unacceptable risks from air pollution. The Framework is clear that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of air pollution. New development should be appropriate for its location, taking proper account of the effects of pollution on people's health."*  
<https://tinyurl.com/q9jtdmj>
- DEFRA 2012 Air Quality Expert Group. Fine Particulate Matter (PM2.5) in UK *"The new approach aims to achieve a reduction in the overall exposure of the population to PM2.5 based on the concept that greater public health benefits could be obtained from a general reduction in exposure"* [https://uk-air.defra.gov.uk/library/reports?report\\_id=727](https://uk-air.defra.gov.uk/library/reports?report_id=727)
- Public Health England and DEFRA 2014 *"Estimating Local Mortality Burdens Associated with Particulate Air Pollution"* *"current levels of ambient PM2.5 particulate pollution have considerable impact on public health. Measures to reduce levels of particulate air pollution, or to reduce exposure of the population to such pollution, are regarded as an important public health initiative".* Ultra-fine particles PM2.5 are the size of viruses and penetrate deep into lower airways, cross cell membranes and enter the food chain.

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<https://www.gov.uk/government/publications/estimating-local-mortality-burdens-associated-with-particulate-airpollution>

- London Environment Committee Waste: Energy from Waste 2018  
*“Recyclable materials are unnecessarily going to incineration, including materials, such as plastic, that are potentially hazardous to health when burnt....Energy from Waste plants do not sort recyclable waste as part of the process, as this is seen as the responsibility of residents, businesses and local authorities. Chair: “We have got to get a grip on the amount of waste being sent to incineration. Burning recyclable and organic materials is wasteful and potentially harmful and as London is expected to grow, we urgently need to reduce the amount being sent for incineration and to separate out useful materials.”*  
<https://www.london.gov.uk/press-releases/assembly/londons-burning-waste-problem>  
[https://www.london.gov.uk/sites/default/files/waste-energy\\_from\\_waste\\_feb15.pdf](https://www.london.gov.uk/sites/default/files/waste-energy_from_waste_feb15.pdf)
  
- SAHSU - Unpublished research on health impacts of UK waste incinerators. The Small Area Health Statistics Unit, Imperial College London, and the Environmental Research Group, King’s College London, both part of the MRC-PHE Centre for Environment and Health, are being funded by PHE to carry out a study to further extend the evidence base as to whether emissions from modern municipal waste incinerators affect human health. The study is being carried out to extend the evidence base and to provide further information to the public on this subject. The research will report late 2018 (already 4years late due to data complications). Scientists are researching a potential link between the emissions from municipal waste incinerators and health outcomes in babies only, including low birth weight, still births, infant deaths, congenital anomalies. The study design is considered limited because:
  - No focus on other health impacts with which fine particulates are linked, -Focuses only on links with fine particulate >PM10 and is not powered to accurately assess links with PM2.5.
  - Claims that PM2.5 data will be within PM10 data are misleading, because the focus on assessing links with PM10 has potential to dilute trends with PM2.5.
  - Subset/appendix data may be reported for PM2.5 but as a secondary endpoint it will be limited in interpretation to hypothesis stimulating,
    - Uses EU Directive minimum regulatory monitoring data which underplays risks from various unmonitored dangerous dioxins and carcinogenic heavy metal emissions (cadmium, chromium, arsenic, mercury). Min standards considered by industry to fall far

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short of optimum monitoring standards for minimising health and environmental risk.

- Data employed now almost 10yr old.  
<http://www.sahsu.org/content/incinerators-study>
  - The WHO emphasises that *“priority needs for research include development and application of biomonitoring, both in human observational studies and in toxicological research, the use of pharmacokinetic models to assess the influence of factors such as metabolism and timing of exposures, and the analysis of all relevant environmental matrices, in order to evaluate chemical exposure pathways and to assess the exposure for specific subsets of the population”*.
- ciii. These reports and others demonstrate that scientific experts the world over have serious concerns about practices that increase production of ultra-fine parties in the air, regardless of the size of the contribution they make to air pollution. All the above reports show an absolute direction of needing to reduce ultra-fine particulate air pollution, not increasing it. The fact is that waste incineration produces emissions which contribute to air pollution. Developers may argue the toss about significance, but they cannot conclusively claim that air pollution is not contributed to. Emissions modelling is a best guess and moreover, claiming ‘safety’ in absence of known abatement technology raises very serious questions.
- civ. Developers may argue about significance, but they cannot conclusively claim that air pollution is not contributed to by their actions.
- cv. This year, air pollution was formally linked to the tragic asthma death of nine-year-old Ella Kissi-Debrah who lived in Hither Green, just metres from Brownhill Rd. Her family are applying for the inquest into Ella’s death to be reopened and for new medical and scientific evidence about Lewisham’s pollution levels to be considered.
- <https://ourhithergreen.com/2018/07/air-pollution-linked-death-of-ella-kissi-debrah/>
- cvi. In this context, we would ask you to read and consider the following list of recent publications relating to the effects of airborne pollution on human health in the UK.
- “Air pollution: outdoor air quality and health”, NICE, June 2017
  - “Improving air quality”, Joint Committees of Parliament, March 2018
  - “Annual Report of the Chief Medical Officer 2017, Health Impacts of All Pollution - what do we know?”, CMOH, March 2018
  - “A Breath of Toxic Air – UK Children in Danger”, UNICEF UK, June 2018.
  - “Clean Air Strategy 2018”, DEFRA consultation, May 2018

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- “Reducing UK emissions, 2018 Progress Report to Parliament”, UK Committee on Climate Change, June 2018
- “Clean Air Strategy 2019”, DEFRA, January 2019
- “Healthy Air for Every Child – A Call for National Action”, UNICEF UK, February 2019
- “Cardiovascular disease burden from ambient air pollution in Europe reassessed using novel hazard ratio functions”, European Heart Journal – Lelieveld et al, March 2019
- “Air Quality: National Air Pollution Control Programme” DEFRA, March 2019

- cvii. What Health Impact Can We Potentially Expect in Cambridgeshire?
- cviii. A 2014 report by Public Health England and DEFRA “Estimating Local Mortality Burdens Associated with Particulate Air Pollution” showed that locally PM2.5 fine particulate air pollution was linked to annual effects on mortality across Cambridgeshire.
- cix. It should also be noted that the Orchard Park Air Quality Management Area is sited within the plume area to the south west of the proposed incinerator.
- cx. Cambridgeshire under the UK is a member state of the EU and as such is required to comply with legally binding limit values for ambient concentrations of various air pollutants including PM 2.5, PM10 and NO2. (We refer you to Pollution Appendix 4)
- cxii. Summary
- cxiii. The community are extremely concerned by the risk to public safety that will be caused by what appears will be a COMAH site so close to their community. The applicant appears to have carried out no safety or evacuation planning that we are aware of.
- cxiiii. The community are gravely concerned about the underplay of long term risks to health arising from pollution and reduced air quality by the appellant in their application and its proximity to a primary school and a brand-new town, existing Fen Edge villages and iconic protected sites of special interest that all fall downwind within the high impact pollution zone.

- cxiv. The community are concerned by the potential for long term build up in the soils and for deposition on plant surfaces of highly toxic dioxins and heavy metals in what is a horticultural crop-growing area.
- cxv. The community trusts that the inspector will careful consider the long-term cumulative potential for risks to health, especially for vulnerable members of society, and that he shall only consider this matter irrelevant if he is satisfied beyond all reasonable doubt that there are no risks to health.

#### **4. Cummulative Impacts**

- i. The importance of 'the right information' to accompany an application is stressed in the NPPF Para 192 particularly in respect to EIA development.
- ii. Robust and comprehensive ecological assessments need to be completed to inform any application which has potential to impact on sensitive ecological receptors. An Ecological Impact Assessment (EclA) must consider all potential direct and indirect impacts. Avoidance, mitigation, compensation and enhancement measures need to be implemented to minimise ecological impacts to meet UK/EU law and national and local planning policy.
- iii. In terms of cumulative impacts, the EIA process (and EclA) must consider extant plans and proposals in the vicinity. The Waterbeach Urban and Civic (U&C) application provided a cumulative impact assessment in Chapter VI of the Environmental Statement. The assessment concluded that the risk of cumulative impacts resulting from the U&C proposals was 'negligible' based on proposed/under construction development at the time of assessment in May 2018.
- iv. CBWin has identified areas within the appellants EIAs that we believe may bring into question the validity of their conclusions.
- v. Evidence
- vi. Omission of neighbouring industrial enterprise Malary's from EIAs and EclAs.
- vii. Malary's in Cottenham processes refuse derived waste oil from garages and hazardous and non-hazardous waste. Malary's site is just over a mile away from the incinerator site, well within the 10-16km high impact zone of the application site. The plant works 24/7 with the only working time restrictions being on vehicle movements.
- viii. The business address is Unit 1 Brookfield Business Centre Twentypence Road, Cambridge CB24 8PS.
- ix. Despite resident requests to the appellant at exhibitions and via email, Malary's appears to have been omitted from cumulative environmental impact assessments. Both Malary's and the proposed giant incinerator processes create polluting emissions, and both plants emissions will blow on prevailing winds largely east and north.
- x. Malary's have submitted a planning application to Cambs County Council very recently to expand.
- xi. The Environment Agency receives regular reports from residents in Cottenham regarding problems with odours and noise.
- xii. A proper assessment of the cumulative impact of this industrial enterprise is required in the appellant's EclA and EIAs.

- xiii. Omission of Land Adjacent to Waterbeach Barracks from EIAs and EclAs.
- xiv. The land adjacent to Waterbeach Barracks is a large greenfield agricultural piece of land that is committed in the South Cambridgeshire District Council (SCDC) Waterbeach New-Town Supplementary Planning Document (SPD) for the development of 4,500 dwellings. An outline planning application was issued to SCDC entered earlier this year.
- xv. SCDC Planning Ref: S/2075/18/OL. Developer RLW Estates.
- xvi. We cannot find any evidence in the appellant's EIAs or EclAs of an assessment of the cumulative impact of this development. The appellant has disclosed that they have had advanced commercial discussions about supplying this site with potential heat offtake from the giant incinerator by means of an underground pipe, but we do not find the EIA/EclA reflective of any consideration of this committed development site.
- xvii. This development site intends to include a large combined heat and power energy centre (CHP), with a 30m stack, sadly instead of prioritising genuinely renewable green energy such as hydro/wind/solar.
- xviii. A proper assessment of the cumulative impact of this whole development and the CHP with the giant incinerator is required in the appellant's EclA and EIAs. (Note- detailed plans for the building of the underground heat off take pipe are missing from the appellant's application.)
- xix. Omission of Assessment of Cumulative Impact of CHPs on Waterbeach Barracks from EIAs and EclAs.
- xx. Waterbeach Barracks brownfield site has long been part of the SCDC Waterbeach New-Town SPD for development of 6,500 dwellings. As of 13/5/19 outline planning has been approved.
- xxi. SCDC Planning Ref: S/0559/17/OL.
- xxii. We have found reference to this development in the appellant's EIAs and EclA, but we find the conclusions dismiss any impact, yet robust assessments appear to be missing.
- xxiii. Specifically, development site intends to include 3 large CHPs, each with 30m stacks (again, sadly instead of prioritising genuinely renewable green energy such as hydro/wind/solar). The new town therefore will have 4 large CHPs, each producing constant polluting emissions into the local environment.
- xxiv. The appellant has disclosed that they have had advanced commercial discussions about supplying this site with potential heat offtake from the giant incinerator by means of a underground pipe, but we do not find their EIA/EclA reflective of any consideration of the cumulative impact of the CHPs alongside the giant incinerator,

and the appraisals also contradict in places the EIA and EclA findings of the Waterbeach Barracks application (see 'Ecological, Hydrological and Environmental Cumulative Impacts' below).

- xxv. A review of the cumulative impact of this whole development and inclusion of the 3 CHPs with the giant incinerator is required in the appellant's EclA and EIAs.
- xxvi. Ecological, Hydrological and Environmental Cumulative Impacts
- xxvii. The giant incinerator is sited within 1km of the nearest ponds that were discovered in the Waterbeach Barracks outline planning application EIA to contain breeding populations of Great Crested Newts (GCNs) and the plant will discharge dirty wastewater eventually into local water networks and produce polluting emissions.
- xxviii. CBWin has concerns about the impact of certain processes and design plans at the incinerator on the nearby ponds and the wider water network that links with protected areas that your organisations are responsible for.
- xxix. According to the plans by the appellant:
1. The incinerator will discharge dirty wastewater (water which is used for cooling the industrial plant) to an installed holding pond. The developer proposes oil filtration and reed bed filtration in the holding pond, with a penstock valve in case of a pollution event.
  2. The incinerator bottom ash (IBA) will contain among other pollutants, heavy metals including cadmium, lead, mercury, chromium, copper, nickel, silver, zinc, arsenic, which are present in nano-sized (smaller than PM2.5). The IBA 'should' be contained on site but as other UK incinerators have shown there are small but regular leaks when IBA is moved from the contained facility (closed housed or not) onto removal vehicles to be transported to sites elsewhere for contaminated waste burial. It is a basic fact that the airborne IBA that occurs during this transfer process cannot be fully contained by any proposed housing and there is real potential for it to quickly find its way into nearby water courses as well as the onsite holding pond.
  3. The surface water system proposed by the developer discharges water into nearby Beach Ditch and existing purpose-built drainage infrastructure.
- xxx. We are concerned that there are potential hydrological and ecological impacts on the 11 barracks ponds that contain great crested newt populations, and on the River Cam and downstream sites including Cam Washes SSSI, Upware North Pit SSSI, and Wicken Fen SSSI Ramsar site (component of Fenland Special Area of Conservation SAR). We are concerned that these impacts have not been assessed correctly and adequately by the developer.
- xxxi. We note that in the appellant's environmental statement Dec 2017 that three questionable areas of assumption have been made which also lead us to belief the hydrological and ecological impact (for GCNs) conclusions the developer has made are inaccurate:

1. Ecology impact has ignored the rich ecology and biota to the east of the incinerator site:
  - i. Appellant: “6.3.26 The nearest known GCN population is over 800m from the Site boundary at Landbeach Pits LWS. As described in Appendix 6.1, surveys have been carried out of the WWMP area in the past with negative results, while more recent habitat suitability assessment of the water management system concluded that ponds and watercourses were of ‘poor’ or ‘very poor’ suitability for GCN.” Your report on the barracks development shows GCNs exist much closer to the incinerator site.
  - ii. This is entirely contradictory of the EIA Ecology Report for Urban and Civic’s Waterbeach Barracks outline planning application, by SCDC’s Ecology Expert Mr Daniel Weaver, which found very different evidence of GCN’s:
  - iii. “Great crested newts- Out of the 19 ponds surveyed 11 were found to contain breeding populations of great crested newt. The data shows that populations have increased from small to medium size in the interim, that the two metapopulations suggested by the 2015 data have been maintained, and that an additional three ponds have been found to contain breeding populations.
  - iv. The increase in population and three new breeding ponds will mean there is an increased requirement for replacement ponds (should any of these be removed) and either the increased retention of suitable habitat or the increased creation of suitable habitat. This must therefore be accounted for in the outline mitigation strategy.” (Nov 2018).
  - v. Appellant: “6.3.4 Wicken Fen is the only component SSSI of Fenland SAC which is located within the 10km radius for consideration of air quality effects.” The appellant has very much downplayed impacts here and failed several times to reference it as a Ramsar site. Iconic Wicken Fen (120 years old this year and the first ever nature reserve of the National Trust) sits directly beneath the main emissions fall out zone as dictated by typical prevailing winds. For 30+ years the industrial plant will emit nano-sized particles of pollution 24/7 in the direction of this protected site, and over the River Cam and Cam Washes which sit even closer. Although emissions will ‘apparently’ contain 1-2% of these harmful toxic chemicals, the cumulative impact over time on rare ecology and biota at these sites has not been properly appraised by the developer. This concerns us greatly.
  - vi. Cottenham Lode has not been included in the appellant’s EIA/EcIA and there are known populations of protected water voles there. Cottenham Lode is within 2 miles of the incinerator site.
  
2. Water impact has been focused only to the west of the incinerator site:

- i. the only bodies of water that are of significance to the appellant in their EAI are Beach Ditch and Old West River (both to the west and north). They disregard all other existing water courses and especially overlook those that link to water courses to the east which flow directly and downstream into the major water networks of the River Cam and Cam Washes SSSI.
- ii. “6.3.4 Wicken Fen is the only component SSSI of Fenland SAC which is located within the 10km radius for consideration of air quality effects.” As above.
- iii. The appellant seems to have failed throughout their EIA to correctly identify Cam Washes as a component SSSI of Fenland SAC. Cam Washes is much closer to the incinerator site than Wicken Fen.
- iv. The appellant, to our knowledge, has not put forward in their planning documents mitigation and biodiversity enhancement measures sufficient to offset the damage to the proposed site. The flora, fauna and physical characteristics of Levitt’s field will change completely with the proposed conversion of this large agricultural greenfield into an industrial incinerator.

3. Ecology and water impact on the Waterbeach Barracks site:

- i. The appellant concludes that there would be no cumulative impact on ecology or water at the adjacent barracks site, but fails to acknowledge what living systems are actually present there and the natural flows of water towards the River Cam and Cam Washes (and Cam Ouse network) in the east (as you have comprehensively outlined in your response to the Urban and Civic planning application).
- ii. The appellant has not addressed any ecological systems at the greenfield site where RLW Estates have applied to build 4.500 houses.

xxxii. The appellant proposes that some design features and features of the natural drainage network will mitigate the potential for water pollution in the immediate area:

- i. “9.4.12 The distance from the construction site to Old West River would in most instances allow suspended sediment to settle out and pollution to be diluted to such an extent that adverse effects are unlikely to be experienced. However, if a serious pollution incident was to occur there may be the potential for pollution to reach Old West River in such concentrations to cause harm.”
- ii. “9.4.17 Surface water flows from areas susceptible to pollution e.g. roads and parking areas, would pass through bypass oil separators

prior to being discharged into the reed beds lagoons. A penstock valve would also be fitted enable the reed beds to be isolated in the event of a pollution event. The reed beds themselves would provide a water quality treatment function, accumulating suspended particles contained within runoff from the Site. As such the likelihood of their being a pollution incident downstream of the Site would be low. However, after heavy rainfall, some pollutants could potentially enter Beach Ditch. Due the presence of the reed beds and the additional mitigation provided by the drainage channel leading to Beach Ditch any pollution event is likely to be of short duration and intensity. On this basis the magnitude of the effect is considered to be minor.”

- iii. The appellant has as mentioned above, not assessed the cumulative environmental or ecological impact of the incinerator and the 3 combined heat and power (CHP) energy centres that Urban and Civic intend to build on Waterbeach Barracks, or the 1 CHP energy centre that RLWE Estates plan to build on greenfield between the barracks site and Wicken Fen.

Along with the giant incinerator, there is potentially going to be an introduction of 5 large scale industrial polluting chimneys in what is currently a very rural and agricultural area. CBWin have attempted to raise awareness of this on the respective outline planning applications.

xxxiii. Our concerns with these assumptions and omissions by the appellant are as follows:

1. There is no way of controlling the leakage of IBA during transfer or stopping pollutants that fall from the emissions from entering the onsite surface water. At wetter times of the year the content of harmful pollutants in surface water could be much higher. This water will be routed to Beach Ditch which connects with the wider waterways network and will also route into surface drainage systems.  
The developer has not provided any examination to my knowledge of this source of risk to nearby water network contamination. Nor as far as we are aware, have they provided any assurances against dangerous nano-sized particulates passing through surface water treatment processes (there is no known technology that can filter out these sized particles <PM2.5).
2. The developer has not accounted for the potential for flooding to head eastwards or into any other nearby watercourse other than Beach Ditch.
3. The developer has not accounted for the impact of potential flooding that will reach by means of ground absorption and drainage networks, the ponds on the barracks, River Cam, Cam Washes and Wicken Fen.

4. The filtration systems mentioned are a matter of serious concern. Reed beds and the surface water management system (with its proposed oil interceptors as part of the surface water filtration before distracting to the holding pond) will not prevent the leaching of nano-sized particles of heavy metals. If these metals escape into the surface water and waterways beyond, they will contaminate the wider waterways network and especially the nearby River Cam, Cam Washes SSSI, and Wicken Fen (SSSI, Ramsar) and wider Greater Ouse System.
  5. The appellant does not expect heavy metals to dissolve in water or expect any IBA that eats into the wastewater to be captured by the proposed oil receptors. This is what their environmental statements say. This is an error of science, heavy metals such as those mentioned above, can and do dissolve in water to a greater or lesser degree and therefore cannot be captured totally by oil/silt/mechanical interceptors designed to trap solids. The same interceptors cannot trap nano-sized solids too which these heavy metals are when in solid form. There is therefore no automatic way of preventing escape of heavy metals into the holding pond and beyond from accidental release of IBA, everyday unintended release of air borne ash that will be inherent throughout the site. The error of science has not been picked up by other bodies commenting on this application from what we have found but you may identify otherwise. The final EA permit will as such not include this important information. Any permit will also as standard, not require any testing of surface water to be undertaken.
  6. The appellant has stated that cumulative hydrological effects from the Waterbeach barracks development on the incinerator site are negligible, but they have not it seems assessed things the other way around.
  7. Nor have they it seems assess cumulative hydrological effects from the RLW Estates proposed development which like the Urban and Civic development will vastly change the natural way this area of the fens drains, and therefore create change in the local water network.
  8. The plant will run for 30+ years, burning 24hrs a day so the cumulative effects are potentially huge. We are not convinced the developer has conducted environmental, hydrological or ecological assessments that robustly conclude cumulatively the constant exposure for 30+ years.
  9. The National Planning Policy Framework stresses in Para 192 the importance of 'the right information to accompany an application, particularly in respect to EIA development". We feel the developer has failed this test for reasons outlined above.
- xxxiv. We believe if our findings are correct the delivery of the 'Big Vision' plan for Wicken Fen SSSI Ramsar is at threat.
- xxxv. Both Wicken Fen and Cam Washes are protected by European and National legislation. We cannot find in the appellant's planning documents, the appropriate consideration of such legislation. The effects of the proposed incinerator on the

integrity of these protected sites has not been confirmed and has also not been agreed with the custodial organisations of the sites. We believe the long-term cumulative impact to be adverse, and therefore the aforementioned legislation should be included in planning documents and requires careful consideration at appeal.

- xxxvi. In addition, Wicken Fen has embarked on a significant expansion, which will see the National Trust's first and oldest nature reserve grow by 100 hectares, the southern and eastern boundary of which will bring Wicken considerably closer to the incinerator site and immediate emissions fall out zone.

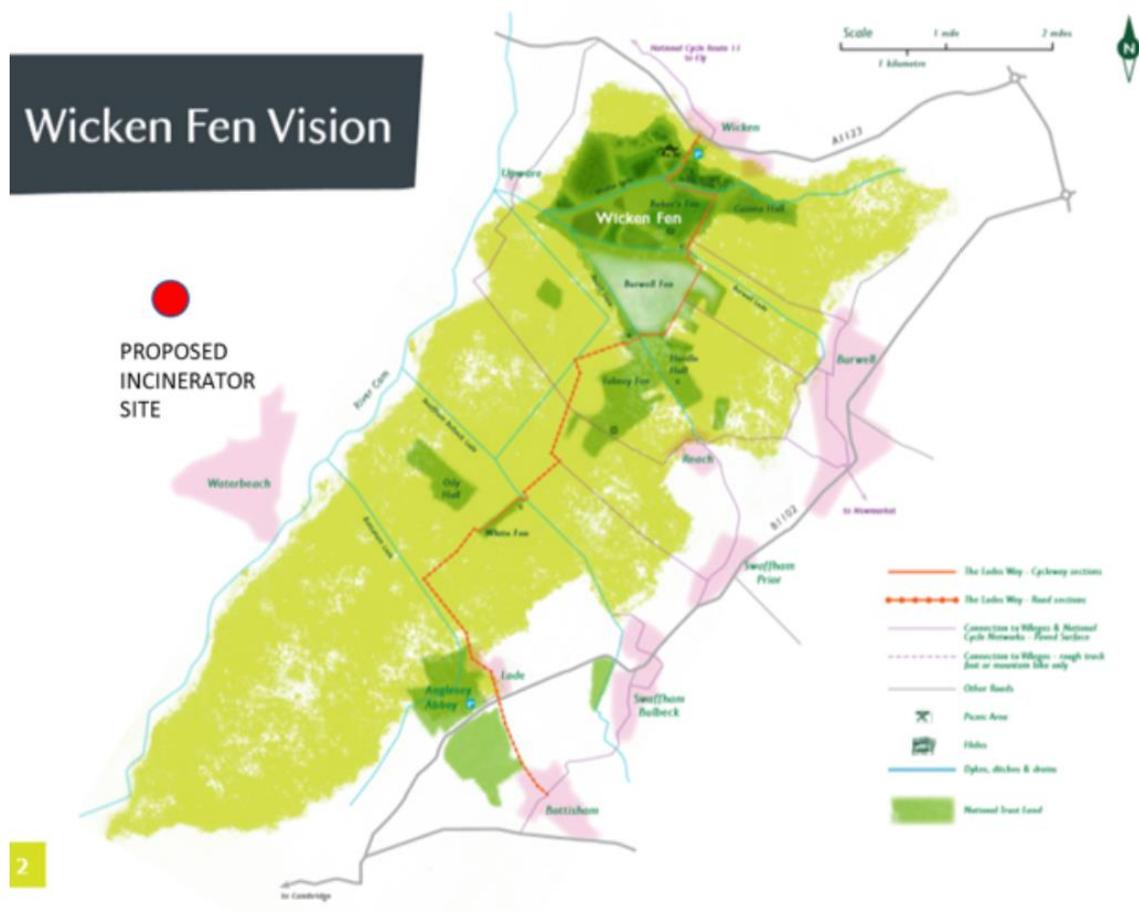
*“The Wicken Fen Vision is an ambitious plan to create a diverse landscape for wildlife and people stretching from Wicken Fen to the edge of Cambridge*

*The first two acres of Wicken Fen were purchased by the National Trust for £10. We have been looking after this special place, home to over 9,000 species, since 1899.*

*Less than 1% of original fen survives in East Anglia, of which Wicken Fen is a fragment. Despite growing to 358 hectares, the nature reserve was too small and isolated to guarantee the survival of all its rare and numerous species, and under pressure from the increasing numbers of people seeking its peace and tranquillity.*

*After 100 years of caring for Wicken Fen, it needed an exciting and pioneering plan to take it into the next millennium. Launched in 1999, the Wicken Fen Vision is a 100-year plan to create a diverse landscape for wildlife and people. An historic landscape that will provide a space to breathe, think and explore for the modern world. By 2099, we will increase the nature reserve around Wicken Fen to an area of 53 square kilometres. By restoring natural processes, careful management of water and grazing will allow the land to evolve a mosaic of habitats for a wide variety of abundant wildlife. People will be able to enjoy access and recreation opportunities across a beautiful, tranquil wilderness, with opportunities for volunteering, education and interpretation.”* Wicken Fen National Trust

<https://www.nationaltrust.org.uk/wicken-fen-nature-reserve/features/wicken-fen-vision>



xxxvii. Summary

xxxviii. All these findings are worrying to our group because the appellant is proceeding with evidence that is seemingly significantly inaccurate in an appeal process, evidence that doesn't accurately reflect the hydrological and ecological impact.

xxxix. We would argue that the findings above are investigated, and we have already courteously provided CCC and SCDC, Natural England and National Trust with sight of our findings and our concerns.

xl. Cumulative impacts of the Malar's business, and RLW Estates and Urban and Civic major development sites (and any other proposals or plans of relevance) need to be re-taken into consideration in the Environmental Statement for the giant incinerator.

xli. We suggest that a biodiversity impact assessment is also be conducted for this development.

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- xlii. The Environmental Statement needs to include and assess the impact on Cam Washes SSSI, which has been entirely forgotten about by the appellant.
- xliii. This is especially important given the known presence of protected species close to the incinerator site and the iconic sites of special interest of Wicken Fen SSSI Ramsar, and Cam Washes SSSI.

## **5. Traffic and Highways**

- i. In their Environmental Statement Dec 2017 Vol 1 The appellant claims:
- ii. “In 2016 the WWMP site accepted just over 400,000tpa of waste input materials per annum, resulting in a waste export from the site of circa 133,000tpa. A further 170,000tpa of process materials generated by the WWMP facilities are currently disposed direct to the adjacent Waterbeach landfill facility and therefore do not require transport off-site”.
- iii. Landfill 93,00tpa plus a 250,000tpa EfW facility (Baseline + Development). Plus EfW Outputs: 62,500 tpa Incinerator Bottom Ash (IBA) , 10,000 tpa Fly Ash / APCR
- iv. “11.4.21 Review of the average daily HGV demand estimates set out in Table 11.2 below, demonstrates that the WWMP development currently generates an average of 534 HGV movements per day (267in / 267out), which could be expected to increase to 618 HGV movements per day, should the WWMP site ultimately operate to maximum consented levels, with the vast majority of post-process materials being disposed at the on-site Waterbeach landfill. In the longer term, once the landfill reaches capacity and is closed, (when all residual materials would need to be exported off-site for disposal), maximum operation of the WWMP could give rise to up to 694 HGV movements per day (347in / 347out) including rounding.”
- v. “APPENDIX TA9c - Additional HGV Traffic Generated By Max WMP Operation + 250,000tpa EfW Scheme 58 in and 58 out”
- vi. “11.7.10 Given the review of anticipated future operational highway conditions and reference to appropriate guideline standards, it is concluded that the Proposed Development would not result in a severe impact on operational or environmental conditions over the local transport network. There is no requirement for off-site transport improvement / mitigation works.”
- vii. “11.4.31 On the basis of this analysis, it is concluded that there is no requirement for the introduction of development related local highway capacity improvements at this location to support the EfW application scheme.”
- viii. “Access from the Proposed Development to the wider adopted highway network would be taken via internal road connections within the WWMP site linking to the A10 Ely Road at the A10 WWMP Roundabout.”
- ix. “11.3.6 An appraisal of the operational safety of the immediate local network to the Proposed Development has been carried out through a review of Personal Injury Accident (PIA) data for the circa 5.5 year period (Jan 2012 – May 2017) as supplied by CCC Highways Data Team. Given that this analysis identified only limited accident events involving commercial HGVs and good operation of the immediate WWMP Roundabout connection to the A10, it is therefore concluded that there are no local

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material highway safety concerns which would bring the application scheme into question.”

- x. “There is no evidence of any material local road safety hazards that would call the Proposed Development into question. No additional local network safety or capacity improvements are therefore considered necessary to accommodate relatively low levels of predicted traffic demand”
- xi. The appellant has largely underestimated the highways safety impact of the development, and also underestimate the predictions of traffic generation from committed developments. The later will both increase HGV levels through servicing these committed developments, and also creates a vastly different picture with regard to cumulative traffic impacts which has not been properly assessed.
- xii. Evidence:
- xiii. The National Planning Policy Framework stresses in Para 192 the importance of 'the right information to accompany an application, particularly in respect to EIA development'..
- xiv. The appellant’s predictions included a number of committed developments but did not include:
  1. Gibson Close, Waterbeach- 22 dwellings
  2. Phases beyond the initial phases of Waterbeach Barracks & Airfield Re-Development by Urban and Civic. This application has always consisted of a number of large phases. It was negligent of the appellant to only focus on ‘initial phases’.  
The main site access for the Waterbeach Barracks development will be off the WWMP A10 roundabout. The same access point at the appellant’s site. (Application S/0559/17/OL Sth Cambs District Council (SCDC) was granted outline planning permission for the full 6,500 dwellings on 13/5/19).
  3. Land adjacent to Waterbeach barracks- 4,500 dwellings (outline planning has been applied for with SCDC Ref:S/2075/18/OL).
  4. Both the committed developments in points 2&3 above have been known for some years as ‘Waterbeach New Town’ in the South Cambridgeshire District Council SCDC Local Plan (SPD supplements policy SS/6). They feature in the newly adopted (6/2/19) SCDC Local Plan as the ‘Waterbeach New Town SPD.
  5. North East Cambridge (formerly known as the Cambridge Northern Fringe) development which has also been part of the SCDC Local Plan for some time and features in the ‘North East Cambridge Area Action Plan. This development is for several thousand dwellings and is just 5 miles from the site.

- xv. The A10 is severely congested throughout long periods most working days, especially between the WWMP A10 roundabout going south to the Milton A14 roundabout, and going north to Stretham A10 roundabout.
- xvi. The 'Greater Cambridge Partnership Ely to Cambridge Transport Study 2018'<sup>1</sup> states that the A10 has major problems now and requires significant upgrading including dualling. According to the study, the stretch between Ely and Cambridge is expected to see an increase of between 69% and 88% depending on peak hour and direction of travel once the committed developments outlined above are built.

1. <https://www.greatercambridge.org.uk/transport/transport-projects/ely-to-cambridge-a10-transport-study/>

The study recommends urgent upgrading, with a suite of broad recommendations costing circa £310M, including public transport development, non-motorised transport routes, junction improvements, A10 dualling

One proposal involves leaving the stretch of A10 between Stretham and Milton as single carriageway, and building a new dual carriageway from Stretham south through Landbeach, to join the A14 at a new junction east of the Milton A14 interchange.

The appellant has not included the 'Ely to Cambridge Transport Study 2018' in their assessments of traffic.

- xvii. Dual carriageway access is essential for any WMP and especially for WWMP whose owner intends to significantly increase the annual waste processing capacity and construct and operate for 30+ years of a giant incinerator.

Incinerators of this size elsewhere are serviced by a dual carriageway, not just because the plant capacity is most efficiently served by a more advanced road design, but because of critical highway safety advantages, including ease of access for emergency vehicles. Incineration plants with huge furnaces and toxic by-products are considered to be 'high safety risk'.

The existing A10 single carriageway is not fit for purpose for this development. It is essential that the proposed plant is served by a dual carriageway.

- xviii. The A10 is no longer viewed as a safe route for cyclists, the transport associated with 42% more waste only adds to issues. The appellant speaks of cycle to work opportunities for construction and operational employees yet there is no existing safe cycleway to the site and no design details for construction of one in the appellants application. The committed Waterbeach New-Town involves a cycle network but the appellant has not provided solutions to extend this between the Cambridge Research Park and New-Town.
- xix. 3.11 3 of the CCC Officers report "The applicant has agreed to cap the waste tonnage at the WWMP at 571,000 tpa". This is approx 171,000tpa MORE than the

current processing detailed in the application. This equates to a 42% increase in waste to be transported.

- xx. Bare in mind that the appellant has disclosed that they wish to bring in waste for the incinerator from 10 other counties<sup>1</sup>. This they call the 'Local Catchment Area' and will supply 70% of the incinerator capacity. >30% of this could be coming from out of the county – the effects on the road network and AQMA are unknown and the appellant has not provided predictions for this.

The remaining 30% capacity will be supplied by private commercial contracts with no geographical boundary limitations<sup>1</sup>.

This reaffirms the need for dual carriageway access to the site.

There is no mention within the application that waste from Cambridge will be taken first. The applicant already receives waste from 5 counties and the Isle of Wight. This is contained within the appellant's Clarification Letter Apr 2018

1. April 2018, Amey Clarification Letter (further environmental information supplied to CCC)

- xiii. The importance of 'the right information' to accompany an application is stressed in the NPPF Para 192 particularly in respect to EIA development". Much of the above is vague at best in the appellant's application.
- xiv. CCC stated the appellant's traffic study was done outside of school holidays as required. This is not correct, the appellant's report was undertaken when all local 6th Form Schools were closed, Private schools closed, university closed, GCSE exam leave. At the drop ins the appellant's consultant was embarrassed and had hoped nobody would notice. CCC Traffic consultants were not present at the public meetings.
- xv. The public engagement carried out on traffic impact is not adequate, is inappropriately timed and fails to address the requirements of the Localism Act 2011 and the provisions of the NPPF particularly Para 188.
- xvi. We remain unconvinced by the appellant's predictions of an increase in daily traffic of 100-120 HGV bin lorry movements. An average incinerator burning 32,000 tpa will receive over 1500 trucks of waste<sup>2</sup>. The appellant's incinerator alone will require the burning of 250,000 tps., which equates to 11,700 HGV bin lorries/year amounting to 225 bin lorries per week on top of the HGV bin lorries that supply the landfill site (the appellant is refusing to surrender or lower their landfill current rate of 400,000tpa, which requires approx. 360 lorries/wk.

2. [www.greenpeace.org/international/en/campaigns/detox/incineration/alternatives-to-incineration/](http://www.greenpeace.org/international/en/campaigns/detox/incineration/alternatives-to-incineration/)

The appellant has already agreed to cap site volume at “571,000 tpa”. This is in 3.11 3 of the CCC Officers report. This is approx 171,000tpa MORE than the current processing detailed in the application. This equates to a 42% increase for the site. Yet the appellant’s EIAs and TIAs do not reflect the prior agreed cap volume of 571,000 tpa.

- xvii. SCDC have designated an area of the A14 between Milton and Bar Hill as an AQMA. The appellant stated that it will likely transport Bottom Ash likely via the A10 and A14 on to the nearest hazardous waste treatment facility in Peterborough. The appellant’s TIA does not predict what impact on highways or Air Quality this will have.
- xviii. The appellant has not robustly demonstrated the traffic predictions for regularly removing bottom ash or toxic fly ash.
- xix. The appellant has not produced predictions of cumulative long term air quality impact of fugitive emissions from the full range and scale of vehicle movements that are required to supply the giant incinerator. This has been mentioned in the section on ‘Pollution’.
- xx. The appellant has not included the known A10 accident black spots of :
  - 1. Milton A10 north junction
  - 2. Waterbeach A10 Denny End junction
  - 3. Landbeach A10 junction (site of Emmaus)
  - 4. Chittering Turns on the A10 (frequented by agricultural vehicles)
 (See Traffic and Highways Appendix 1 and Appendix 2)
- xxi. The appellant has only considered the traffic implications and accident history on the A10 for just one kilometre north and south in terms of traffic impact, and did not model the impacts on or of Waterbeach village, the A14, the Milton junctions of the A10/A14, the committed developments of Waterbeach Barracks, Land adjacent to Waterbeach Barracks, Gibson Close (Waterbeach), and North East Cambridge. noise(Shown in the appellant’s ‘Recorded Personal Injury Accidents Incidents May 2012-Jul 2017, and WWMP Transport Assessment)
- xxii. Using 1km from the site access roundabout as a guide to traffic impact and highways safety impact is silly- lorries don’t vanish. In doing so it also excludes the important accident black spots. All vehicles have to travel along the A10 between Stretham and Milton at least to service/access the site.

- xxiii. The appellant has not considered rail as a transport option. Just because they conclude a negligible traffic impact, it should not excuse them from demonstrating appraisals for alternative means of transporting waste to and from the site. The Cambridgeshire section of the Oxford to Cambridge railway and plans for a new station at Waterbeach lend themselves very well to transporting waste. We should be thinking out of the box about what Cambridge will look like in 40 years time.
- xxiv. The appellant states (3.10 of the CCC Officers report) The applicant states there will be 300 in/outs during the construction phase but the application has not indicated the positioning of the temporary car park. There is no temporary car park for 300 vehicles within the appellants application and equally surface water drainage and ecological impact in building this temporary car park have not been considered.
- xxv. The appellant should:
1. Produce detailed calculations predicting the cumulative impact on air quality of the additional HGV journeys over the long term operation of the industrial plant.
  2. Reproduce EIAs and TIAs that reflect the cap volume of 571,000 tpa that has been prior agreed by the appellant.
  3. Reproduce traffic impact assessments including the well-known committed developments of Waterbeach Barracks, Land adjacent to Waterbeach Barracks, Gibson Close (Waterbeach), and North East Cambridge.
  4. Reproduce traffic impact and air quality assessments factoring in the movement of Incinerator Bottom Ash and Fly Ash along the A10 and A14 to likely indicated hazardous treatment sites.#
  5. Reproduce traffic surveys on days which reflect typical road network capacities.
  6. Reproduce traffic safety assessments factoring in the A10 accident black spots along the A10 Ely to Cambridge corridor that will be the main route used by all the appellant's vehicles (including the high-risk junctions mentioned above at Waterbeach, Landbeach, Milton and Chittering, entry to New-Town).
  7. Reproduce traffic impact assessments with consideration of the outputs of the 'Ely to Cambridge Transport Study 2018'.
  8. Commit to taking Cambridgeshire's waste first (ahead of other counties mentioned within the 'Local Catchment Area') or in keeping with NPPF, commit to only taking Cambridgeshire's waste.
  9. Relocate the site away from areas of population and the main access point to a large new settlement
  10. Demonstrate the rationale for not building a rail siding or using existing local rail infrastructure to supply the incinerator.
  11. Provide detailed plans for the proposed 'temporary 300 space car park' and produce respective drainage and ecological impact assessments.
  12. Not be permitted planning approval until the A10 upgrade strategic plan is approved.

13. The National Planning Policy Framework stresses in Para 192 the importance of 'the right information to accompany an application, particularly in respect to EIA development". The appellant has failed this test for reasons outlined.

## **6. Community Engagement**

- i. We note that the appellant is raising 'Community Engagement' as an item in their statement of appeal. The appellant has often claimed to have met council requirements for 'A high level of community engagement' for major proposals. We strongly disagree with this.
- ii. We have raised concerns about the stealth approach to community engagement by the appellant in our responses to the original planning application. Our detailed comments are contained in our planning application response documents titled:
  - a. CBWIN RESPONSE Feb2018
  - b. CBWIN Formal Response S337217CW Public Consultation
  - c. OPEN LETTER to CCC re Giant Incinerator
  - d. CBWIN Formal Response S337217CW Noise
  - e. CBWIN Formal Response S337217CW Pollution (x2)
  - f. CBWIN Formal Response S337217CW Sustainability
  - g. CBWIN Formal Response S337217CW Traffic
  - h. CBWIN Formal Response S337217CW Visual Impact (x3)
- iii. Summarised below is our recollection of the history of the actual community engagement that took place and issues.
- iv.
- v. *The Cambridgeshire County Council (2011) Minerals and Waste plan*  
The plan had only a note mentioning energy from waste and many had not seen this or if they had had not realised it could lead to an incinerator of this size being built. There was no actual consultation on raising this part so few people if any knew.
- vi. *Notification of application:*
  - a. The appellant issued their planning application just before Christmas 2017. Many people did not find out about this until early-mid January when it reached community social media pages after being spotted by a few residents. By which time residents had little time left to read through the many complex documents let alone make representations.
  - b. The timing of the application was done in such a way that public consultation would be minimised because by the time the application was entered, most people were on Christmas and New Year leave. Regardless of CCC extending the consultation period to account for major holidays (after residents complained), we feel this is relevant to highlight because this set the tone for the approach to community engagement that the appellant adopted.
- vii. *Information leaflets*
  - a. Only one flyer about the appellant's EfW proposal was ever blanket mailed to households in Waterbeach. Not all households received it, but the majority did in Jan 2018 after the application was submitted. See Community Engagement Appendix 1 (Appellant's Statement of Community Engagement, Appendix H – Newsletter).
  - b. We understand this was not received by residents in Chittering, Milton, Cottenham or Landbeach. We have not had sight of proof that the appellant included these other communities.
  - c. To date the appellant has not provided any information in an equitable way to all the communities who are affected by their proposal. There is no evidence

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in their Statement of Community Engagement that show that these communities were actually sent information about their proposal in the same way that Waterbeach was.

viii. *Public drop in events*

- a. The appellant's Statement of Community Engagement December 2017 states that it advertised on 31/8/17 a public drop in event running 7-9 Sept.
- b. See Community Engagement Appendix 2- Appellant's Statement of Community Engagement, Appendix E – Poster exhibition notification,
- c. The appellant states they placed this poster advert in local shops but they placed it in a minimal number of shops across just a few villages out of the many that fall within their 10-16km impact zone. There are numerous places in these communities where this poster could have been placed (churches, community centres, schools, health care premises, various shops) but the appellant chose to select very few places to display it.
- d. Notification of the event was placed in commentary in an article in the local newspaper (Cambridge Evening News) and a small version of the poster next to it but was not placed on their internet platform. The poster was never placed in the Ely Standard news paper which serves all the East Cambs parishes and Ely- all of which are affected by the proposal and many of which fall into the appellant's known 'impact zone'.
- e. It was advertised during the summer school holiday, and the press release dated 31/8/17 giving the press no advanced notice so that the event advert could be included in articles for the public more than 7 days prior to the event. This gave people little ability to be made aware and little ability to adjust their personal schedules to attend if they were lucky enough to be aware of it in the first place.
- f. The appellant did not deliver posters to the Waterbeach Parish Council for use within village noticeboards, within timescales set out by the council. The poster was sent via email attached too a letter (Appellant's Statement of Community Engagement, Appendix D – Residents Letter – public exhibition notification), also dated 31/8/17 (See Community Engagement Appendix 3). It is not clear which parish councils were sent this communication. The 31/8/17 was a Thursday which meant at best this could be actioned and shared on the parish council/s website on 1/9/17, providing the community with minimal visibility of the poster and within the minimum 7 days notice required.
- g. The result was that most residents of the local communities were unaware of the event. This shows in the low numbers who attended and the sum total of 27 people in the whole of Cambridge who attended and less that completed the appellant's survey at the event. Most people only became aware of this event when the application became widely known about in Jan 2018.
- h. In January 2018, after the first community called-for public meeting (see below) two public site visits were advertised by the appellant via the Waterbeach Parish Council. These were advertised with 3 days' notice, 2 days before the public consultation ended and limited to 60 people in total.

The local population of Cottenham, Waterbeach and Landbeach parishes which neighbour the WWMP site, is circa 20,000. People under 16 were not allowed - the generation who will have to live with the impacts of the incinerator more than any other

- i. High level community engagement did not occur prior to the planning application.
- ix. *Council led drop in events*
- a. The appellant allowed the county council to do the advertising and running of three drops in events in March 2018, (which was itself minimal and just via the local Parish councils). 90-100 people attended.
  - b. These were advertised by the Waterbeach Parish Council (and possibly at the time also by other parish councils) via their websites at very short notice. Residents were lucky if they saw notifications of these or if those notifications made it to social media, and of course many residents do not use social media. Parish council websites do not attract much traffic, they are not the commonly used information resources for modern communities and are an unreliable platform with which to advertise community drop in events for such contentious development applications.
  - c. Public meetings allow people to make their points and be heard fairly and get an answer that everyone can hear and add to or ask further questions. In other words a drop in event precludes this ability to hear what is being said by people from both parties and is more of a private conversation and doesn't generate further questioning or challenges to what has been said from other people if what is said is unbalanced.
  - d. These events could have provided an excellent opportunity for local people to know more, but they fell short because people simply found out too late or never knew about them or did not understand what they were about. Public meetings would have allowed a greater understanding of the facts.
- x. *Appellant Newsletters*
- a. 'Newsletter' is the wrong description. These information pieces failed to become community engagement news items because they were hidden several clicks away on the appellant's website. They cannot be considered as evidence of 'community engagement' because they are not actively shared with the community.
  - b. It is unreasonable to place information on a website and claim it to be high quality community engagement.
- xi. *Parish newsletter entries*
- a. The appellant previously stated to CCC they used parish magazines for public engagement for their newsletters. However, the appellant never had an article published in the parish magazine 'Beach News', which is delivered free to all

homes in the 3 villages nearest the proposed site (Landbeach, Waterbeach and Chittering).

The appellant did not have an article in Milton Village View either which is delivered free to all homes in Milton.

- b. The appellant has never posted an article regarding the incinerator on any of the various Waterbeach Parish social media platforms which have circulation of over 4,000 local members.
- c. The appellant did not inform the parishes of Histon and Impington, Bottisham, Lode, Wicken, and Stretham and Wilburton of their application prior to registering it with CCC, despite these parishes all being consultees. The community group informed them in January 2018 of the proposal.
- d. The appellant has never to our knowledge posted an article regarding the incinerator on any of the various parish social media platforms which have circulation of over 4,000 local members.

xii. *Internet website content*

- a. The appellant provided basic outline information on their website about their planning application from December 2017. This information included an overview of what they wanted to develop in industry terminology (EfW) and links to the planning documents on the county council planning portal.
- b. This information sat behind several tabs on the website for the WWMP.
- c. There was little more information than that.
- d. In summer 2017 the appellant added a 1-page flyer containing information on frequently asked questions, again behind several tabs on the WWMP website.
- e. **After**, CCC issued their decision in Sept 2018, and after the appellant announced their appeal, they introduced helpful content to their website which was also easier to find. It is a shame they did not do this for the purposes of original community engagement and public consultation.

xiii. *CBWin Community Engagement*

- a. Our group in a short space of time, in Jan 2018, with boots on the ground, provided every household in Waterbeach and the majority of Landbeach and Milton with a hand delivered leaflet about our campaign, the details of the incinerator proposal, how they could comment on the application with CCC. Helpful, useful information that provided references to further information too.
- b. This was shared widely and regularly on local social media pages, our own website and Facebook page and local parish magazine that covers Waterbeach, Landbeach and Chittering .
- c. It was also courteously shared with 25 parish councils and available respective social media pages that fall within the 10-16km air quality impact zone: This is how many parish councils first learnt of the proposal.
- d. We also provided it to press links at BBC Radio Cambridgeshire, Cambridge Evening News, Cambridge Independent, Ely Standard, and BBC Look East.
- e. The group repeated this in March, this time including information about the community group led public meeting.

- f. These efforts were and are still funded and resourced by our members personal time and money.

xiv. *Community Organised Activity*

xv. Jan 2018-

- a. Frustrated community requested a public meeting. 150 people attended. People wanted better access to the proposal information, they wanted an appropriate amount of time and proper display of information to understand the proposal and ask detailed questions. This was organised by District Councillor Tregoing. It was chaired by Horningsea PC clerk, and on the panel was representation from the appellant, CCC, Environment Agency and Public Health England. The appellant failed repeatedly to provide straight answers on several areas of technical information about the design and operation of the proposed incinerator. Feedback received said that presentations by the appellant and their answers were unhelpful and confusing. The Environment Agency and CCC were repeatedly referred to to answer questions and while they were extremely professional in their responses, because of the limitations of their roles they were only able to answer some. The meeting ran out of time for and did not cover everyones questions.
- b. The applicant rejected requests on the night to provide a proper exhibition and to pause their application to conduct a fair and reasonable public consultation.

xvi. Feb 2018-

- a. Residents remained frustrated and asked the community group CBWin to organise a second public meeting. 130 people attended.
- b. The meeting objective was a fair and balanced presentation of the information, and debate of the information, to enable people to make sense of the complex proposal, to address the many unanswered questions, and make their decision to feed into the public consultation. CBWin designed an informative, healthy open debate meeting, where all sides had the opportunity to engage with the community.
- c. The appellant, CCC, Environmental agency, Public Health England and Parish council were invited via established email communications. The appellant and CCC and the community group CBWin were provided with equal presentation time.

- d. CCC responded quickly advising that the date fell just within the end of

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purdah and prevented their attendance but that they would be able to provide officer presence if it moved outside of purdah.

- e. After adjusting the chosen date to behind purdah, the group issued the new date via email.
- f. CBWin did not hear from the appellant for over two weeks despite sending follow up emails about the new date.
- g. During that time CBWin learnt that CCC were unable to attend because the appellant had chosen to hold an exhibition drop in on the same date and CCC would be attending the exhibition drop in. We do not believe this to be a coincidence. Very few people attended this drop in exhibition as witnessed by a lady who sat outside and spoke to people as they arrived and also noted numbers who had signed in. But in contrast 130 people attended our meeting.
- h. The appellant eventually responded saying that they were committed to their own event and had no spare employees to send to the community public meeting.

Our meeting had been boycotted.

- i. The appellant held their exhibition 150 yards along the road from the community led public meeting.
- j. There was no representation at the public meeting from CCC, Environment Agency or Public Health England who were all required to attend the appellant's event, and the appellant sent with no notification four contractors five minutes before the community public meeting started. No direct employee of the appellant attended in a stakeholder capacity; we suspect that some were in the audience, but they did not make themselves known.
- k. The four contractors declined to present or sit at the front in seats that had
- l. by residents' group CBWin. They eventually made it up to the panel after several requests were made from the audience for them to come forward to provide answers to questions rather than sitting quietly.
- m. The appellant managed to disassociate itself from information provided by sending subcontractors.
- n. A vote was taken at the end and the audience unanimously (except three people) objected to the proposed giant incinerator.
- o. Short surveys were provided to everyone and circa 60 were completed- all of which objected to the proposal. This was mirrored by the online survey which can be viewed here and received 2493 signatures, plus local hard copy

signatures of circa 250, all of which were submitted to CCC in our previous representations on the application

i. <https://you.38degrees.org.uk/petitions/no-waste-incinerator-for-cambridgeprotect-our-air-quality-and-health>

p. By boycotting the meeting, they left many questions relating to permits, capacities, assessments of greener, cheaper and more sustainable alternatives, long term business intentions, PFI Contracts with CCC and the BIG why incineration when recycling rates are only 46% and there is a major national cultural shift to improving waste production and recycling, unanswerable.

q. To see how fairly and properly this meeting was designed and delivered, you can listen here to the full meeting audio recording:  
<https://tinyurl.com/yaom4sdz>

r. Note: CBWin were asked by the appellant in Feb 2018 if they would advertise the appellant's website and exhibition events on the CBWin website. CBWin decided this would be inappropriate given that the residents group provides independent information from non-industry sponsored sources and politely communicated as such

**xvii.** Summer 2018-

The community group worked tirelessly to raise awareness among residents across the affected parishes about the application progress, understanding the proposal and providing access to the public meeting audio. One of their youngest supporters (a medal winning junior deaf-Olympian from Waterbeach) crowd funded an amazing sum of money to help make sure the facts were investigated fully. £5000 was raised to commission an independent professional landscape and visual review.

**xviii. Community Liaison Group**

xix. This has been running for a few years and meetings happen haphazardly but roughly quarterly, according to the appellant's website CLG meeting minutes.

xx. The CLG is typically comprised of a variety of the appellant's employees, District Councillors, the Environment Agency, Parish Councillors (1-2 from the 3 closest villages: Waterbeach, Landbeach and Cottenham), Farmland Museum, Frimstone (a

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local minerals extraction company based next door to the appellant at the WWMP), CCC Lead for Waste and Minerals (case officer for the original application) and the local residents. Actual members change regularly looking at the history of minutes.

- xxi. The space for 'local residents' is not a formal space, only parish council spaces are formal 'community' spaces. That said 'local residents' appear on the CLG minutes. These people are property owners and neighbours living close to the WWMP and as such are interested parties, who raise concerns about ongoing issues such as odour, flies, noise, traffic.
- xxii. As far as we are aware, there is no truly independent community resident member and never has been. A Milton Parish Councillor with years of experience of dealing with a waste site asked to become a member of the group but it was not agreed despite a glowing letter of recommendation from a Waterbeach Parish Councillor.
- xxiii. The appellant has never approached the community group CBWin about an opportunity to engage in the CLG, although we appreciate our visions are very different.
- xxiv. Feedback to us from some of the people who have attended these meetings (who wish to remain anonymous) has been that it is a struggle to get answers to questions about problems with operations and information about future development is often veiled. They have also commented it is not a CLG in the true definition of a CLG, but much more a formality and a smokescreen for the appellant to claim, 'community engagement'. The meetings are used by the appellant to tell members what they are doing, and only as much as they want to tell them. The 'engagement' issue arises when members ask questions, and often the appellant declines to answer or agrees to take them away and answers rarely come back.
- xxv. There have been no meetings since Jan 2019 and no updated final minutes since Sept 2018 on the appellant's website.
- xxvi. The CLG minutes are available on the appellant's website, but this is the only way local people can find out about these meetings. Parish Council members do not feedback information from these meetings to the local community, this is the responsibility of the appellant and the appellant merely posts them on an internet page that sits behind several other pages on their website.

**xxvii. Appeal Community Petition**

xxviii. In May the community group CBWin launched a fresh petition for the appeal, which supports strongly the decision last year to reject the application by our county council and calls for the appeal to uphold that decision. The petition is ongoing and will be presented at the appeal open session/s. The online version can be viewed anytime here.

i. <https://www.change.org/p/no-giant-incinerator-at-cambridge-petition>

## xxix. Summary

xxx. An approach that included the following would have been simple to deliver and produce quality community engagement and support the democratic process of this application. Sadly, the appellant did none of this.

## xxxi. They could have:

- applied for planning outside of the country's biggest holiday period
- avoided a period which would include Purdah.
- organised public meetings with a exhibition beforehand.
- mailshot every household in all surrounding villages with the application proposal information and public consultation event details,
- placed the same information in a variety of accessible locations in parishes further away but still within the known emissions impact zone,
- posted public consultation event details on online newspapers, radio and social media and company Twitter, and made it easily accessible on company website,
- utilised the CLG? to convey this kind of information to local residents,
- informed parish councils in a timely manner of information events and meetings,
- provided sufficient timely notice for a large community to achieve awareness of information events and any meetings as well as make personal re-arrangements to attend,
- held exhibitions on days different to local community led events so that employees can attend to provide information, (local community led events may have not been needed if the appellant had organised these).
- provided helpful information about the proposal ahead of applying for planning permission instead of making website content after planning had been refused.

- provided attendees of public information events with surveys that contain unbiased open questions, rather than asking directional questions and offering questions that don't enable people to express answers which contradict the aspirations of the developer,
- xxxii. Community engagement is not rocket science. The appellant appears to have hidden and minimised information and has done the bare minimum to engage the public about their giant incinerator proposal, yet they claim to have delivered outstanding community engagement.
- xxxiii. Residents of all parishes that are affected by this proposal by residing within the air quality impact zone of 10km were not been given reasonable opportunity by the appellant to engage and respond to a fair and proper public consultation prior to their application being submitted and thereafter.
- xxxiv. Local people deserved better than this, they deserved a proper period of notice and proper display of information by the appellant ahead of and after the application was submitted to understand the proposal, ask detailed questions and respond, especially given the complex and major nature of the proposal.
- xxxv. Swamping the public with technical data at hastily arranged exhibitions/site visits after the application had been submitted and turning up unannounced to do the same at community led public events, led the community group to suspect that the developer deliberately tried to obfuscate the facts and stifle community debate and engagement and appeared to try to render our second public meeting a disappointment for the public or even possibly hoped it would be cancelled due to non attendance of key people including Cambridgeshire County Council as well as the appellant.
- xxxvi. High level community engagement did not occur prior to the planning application. South Cambs District Council (SCDC) agreed: In their own Statement of Objection to the Incinerator, SCDC commented "the level of engagement by the applicant to such a major proposal has been poor for such a significant and contentious application" ..."engagement carried out is not adequate, inappropriately timed and fails to address local and national planning policy".
- xxxvii. How does a wide range of affected communities understand such complex proposals and how do people make up their minds when developers behave like this?
- xxxviii. The appellant has consistently and defiantly undermined the community's right to information, and fair and proper consultation which is not in the spirit of democracy. We understand that the community's views are inconvenient and uncomfortable for them but community engagement by stealth is unacceptable.
- xxxix. The public engagement carried out is wholly inadequate, unreasonable, is inappropriately timed and fails to address the requirements of the Localism Act 2011

and the provisions of the NPPF particularly Para 188, especially for a proposal as complex and contentious as a municipal waste incinerator in a rural community.

- xl. Cambridgeshire County Council (have not attended either) / (have only attended the first?) public meeting(s) to hear the views of the public so there is concern that the appellant may have had more chances to explain their case to the County Council than the public have had.
- xli. We are concerned about the lack of fairness in the whole process.

## 7. Promise of Energy

- i. Issues with connecting the heat offtake to the committed new town
- ii. The appellant states:
  - The incinerator will generate electricity for up to 63,000 homes and heat for up to 10,000 homes (if it burns continuously 24/7). The appellant intends this combined energy to service the committed new town directly opposite the incinerator at Waterbeach Barracks. The committed new town South Cambridgeshire District Council outline planning applications S/0559/17/OL- approved and S/2075/18/OL- not yet determined)
  - Proposes a viable electricity connection to the main grid via southern route to Arbury, Cambridge.
  - Proposes a viable and needed heat off take connection via a pipe under the A10 road.
  - Argues that the committed new town at Waterbeach of 6,500-11,000 dwellings needs the incinerator for electricity and hot water. The appellant has engaged in discussions with the developers of the new town with a view to potentially creating an energy transfer link. No contract has been agreed.
- iii. We are concerned that the 'promise' of cheap energy and heat for the committed new town and for Cambridgeshire has not been properly scoped out.
- iv. **Evidence**
- v. Issues with connecting the heat off take pipe
- vi. Waterbeach Barracks brownfield site has long been part of the SCDC Waterbeach New-Town SPD for development of 6,500 dwellings. As of 13/5/19 outline planning has been approved.
- vii. The appellant has assumed that the new town requires the incinerator for electricity and hot water. The size of that need has not been established yet by the two new town developers RLW Estates and Urban and Civic. This will emerge as the two sites for the new town move from outline planning to detailed planning stages. Urban and Civic are moving towards detailed planning application now, whereas RLWE are awaiting the outcome of their outline planning application with South Cambs District Council.
- viii. Whilst the appellant has engaged in 'advanced commercial discussions' with the two new town developers about heat offtake supply from the giant incinerator, we cannot find the appellant's EIA/EcIA reflective of any consideration of the cumulative impact of the CHPs alongside the giant incinerator, and the appraisals also contradict in

places the EIA and EclA findings of the Waterbeach Barracks application (see 'Ecological, Hydrological and Environmental Cumulative Impacts' section). This is a cause for serious concern.

The appellant knows that the new town developer's outline planning applications indicate broad energy statements that include, 4 large CHPs, each with 30m stacks (again, sadly instead of prioritising genuinely renewable green energy such as hydro/wind/solar), each producing constant polluting emissions into the local environment.

Yet the appellant's EIA/EclA seems to omit proper assessment of collective impacts.

- ix. The National Planning Policy 2019 places importance on new developments prioritising renewable and low carbon energy.

The following themes are prominent:

- Planning for renewable and low carbon energy: introduction
- Developing a strategy for renewable and low carbon energy
- Particular planning considerations for hydropower, active solar technology, solar farms and wind turbines
- Chapter 14. Meeting the challenge of climate change, flooding and coastal change.

Para 148. "The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure".

- lxxvi. Section 5 of the Waterbeach New Town SPD explores the 'Guiding Principles' for key land uses; this includes a section on Environmental Sustainability and Climate Change.

"The 'sustainable design principles' that should be considered in proposals for Waterbeach New Town include "Incorporating energy and water efficiency measures into neighbourhood and building design and investigating opportunities for on-site renewable or low-carbon energy generation".

With regards to energy efficiency principles, the draft SPD states that the New Town will be expected to be designed and built in accordance with the following energy hierarchy of:

- 1. Reducing energy by design: Through consideration of building orientation and layout (for example, to promote passive heating in winter and cooling in

summer), optimising opportunities for natural light; and by adopting a 'fabric-first' approach to building design.

- 2. Using energy efficiently: Through integration of efficient systems for heating, cooling and where possible, heat recovery technologies.
- 3. Using renewable and low-carbon energy: and incorporating renewable energy technologies within the development e.g. photovoltaic, district heating networks, etc. Proposals for renewable or low carbon technologies must demonstrate how they mitigate any adverse impacts on the environment.

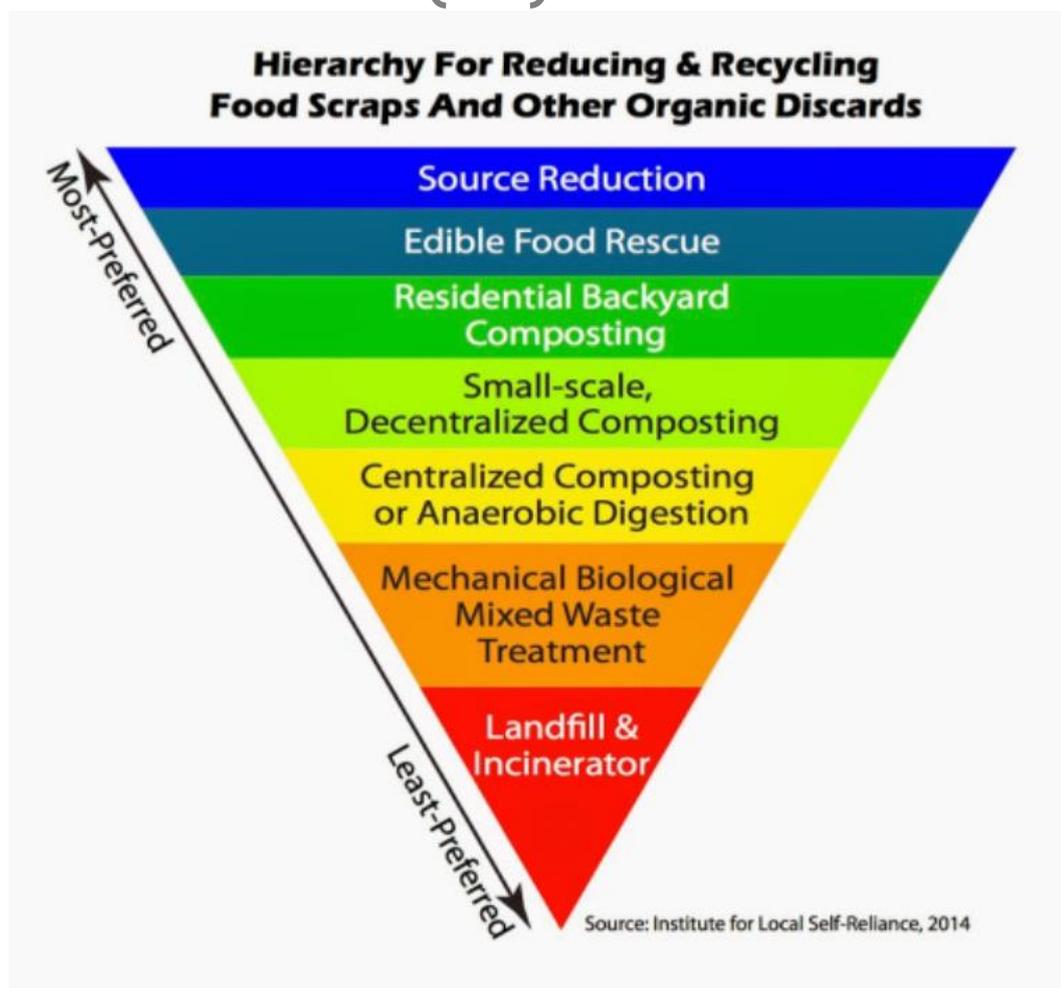
It is suggested that “developers should also think beyond the energy hierarchy to the role of smart energy systems, combining renewables, EV charging, battery storage and flexible plug and play systems to help offset some of the costs of grid reinforcement”.

In terms of renewable and low carbon technology principles, the SPD requires developers to explore, on a sitewide basis, the significant opportunity to incorporate on-site renewable and low-carbon energy generation solutions within the New Town such as gas powered turbines, electrical storage, district heating, micro-grids and Combined Heat and Power (CHP). The SPD requires this to be illustrated through the Energy Strategy accompanying the outline planning application. Additionally, it suggests that building-specific technologies such as solar photovoltaic panels (PV), solar water heating, Wind source electricity/heat, Air Source Heat Pumps (ASHPs), Ground Source Heat Pumps (GSHPs), Water Source Heat Pumps (WSHP) and biomass should also be actively considered.”

It does acknowledge the opportunity to export heat and/or power from the potential new future Energy from Waste (EfW) facility at Waterbeach Waste Management Park adjacent to the site should also be monitored and explored, but given the above content in the SPD the preference is toward greener truly renewable and sustainable technologies.

- lxxvii. We reiterate the important point, that incineration sits at the bottom of the EU Waste Management Directive EfW hierarchy due to it being the least sustainable and most environmentally damaging EfW option.
- lxxviii. Defra's Chief Scientific Adviser who stated in 2018: "*Now, it may give energy out at the end of the day, but actually some of those materials, even if they are plastics, with a little bit of ingenuity, can be given more positive value .... If there is one way of extinguishing the value in materials fast, it's to stick it in an incinerator and burn it". The applicant has failed to account for other relevant and material issues, such as the potential for landfill mining for future recycling.*
- <https://www.mrw.co.uk/latest/resources-and-waste-strategy-second-half-of-the-year/10027666.article>

- lxxix. Incineration also pumps out high volumes of carbon dioxide and other greenhouse gases as a by-product, as well as generating fly-ash, heavy metal emissions, small particulate (PM 2.5) and dioxins, some of the most toxic substances known to man.
- lxxx. The two outline planning applications for the new town only indicate adoption of self-sufficient combined heat and power energy centres. CHPs are not considered 'green' energy solutions. They are an advance on traditional household heating technologies for certain but they are recognised as not being climate friendly, whereas truly renewable technologies such as wind/solar/hydro and initiatives that improve recycling, re-use and reductions in waste are recognised as supporting the NPPF drive to protect the climate via renewable energy generation and preventing carbon emissions.
- lxxxi. The involvement of truly renewable energy generation infrastructure and waste management infrastructure will be contained within the detailed plans for the new town. The appellant does not know these plans and it seems they have assumed entirely that the new town will not adopt such innovative technologies or initiatives.
- lxxxii. It would be out of keeping with the 'green' and 'innovative' vision of the new town for the incinerator to be permitted planning. This would also permit the appellant to commercially incentivise and inappropriately influence the new town developers into cut back plans to source energy from technologies and initiatives that are truly 'green' and innovative'.



- x. A new town that lazily moves waste just one level up the EU/UK waste hierarchy and advocates the burning of fossil fuels twice over is not the vision that SCDC has for this committed new town.

Potentially residents of a new town qualifying for cheaper energy than anyone else in Cambridge yet living directly under a polluting emissions plume (against guidance from WRAP.org).

- xi. The heat off take pipe is a pipe dream at this stage. The appellant has provided just one document in their application to describe this critical component of their plans. The document is a single rudimentary diagram of the heat pipe trench. Their application contains a document referring to a proposed route for the trench- again rudimentary.
- xii. The application contains no plans for the impacts on the A10 and that digging a large trench to support the heat off take pipe would cause. The appellant's rudimentary pipe routing plans show intention to run the pipe alongside the A10 and underneath it. SCDC are currently developing a business case for major upgrading to the A10 based on findings of the SCDC A10 Transport Study. This project has not been considered properly by the developer in their application. The building of a major heat pipe directly interferes with SCDC and highways plans for the A10.

- xiii. For this application to be considered properly the appellant should be providing the necessary evidence to demonstrate how exactly this pipe will be installed and what technology exactly will be used in the design of this pipe.
- xiv. The appellant makes no reference to the promise of heat or energy to the surrounding existing villages. The appellant is only concerned with the benefit to the new town. Yet the surrounding villages will be most impacted by the development of the giant industrial incinerator which is alien to the local area.
- xv. There is nothing in the planning process that ensures or forces the applicant to make sure this energy is used for heating homes or for anything else. The Suffolk incinerator developer also suggested that the heat pipe would provide heating for the newly built homes nearby but nothing was tied up in planning to ensure this happened and it hasn't happened so no homes benefit.
- xvi. The incinerator does not have to be in this location to provide electricity. It will provide electricity wherever it is placed.
- xvii. The appellant has not acknowledged the limitations of incinerator heat off take pipes:
- A significant amount of heat is often lost before it reaches the pipe and whilst moving through the pipe.
  - Cogeneration (CHPs) improves the efficiency to 50-60%.
  - Homes only need heating for around 6 months and they could not manage the heat off take during the remaining months.
  - In France it is estimated that by recovering 50% of all municipal waste by incineration, about 1% of the country's energy consumption can be met. <https://www.planete-energies.com/en/medias/close/incineration-heating-power-refuse>
  - This solution is therefore very far from adequate.
  - The size of the 'need' claimed by the appellant is not proven.
- xviii. Why burning waste doesn't provide cheaper bills for taxpayers
- xix. Incinerators have proven risky investments for cities, particularly as energy prices decline and a growing number of plants are unable to cover operating costs or remain competitive. Tip fees at incinerators are often two to three times higher than comparable recycling or composting costs. Incinerators also lose in a job's comparison; composting sites and recycling centres, for example, create four times the number of local jobs per unit of waste processed than incinerators.
- xx. Economics:
- The incinerator will burn 250,000 tonnes/yr.

- Landfill costs CCC £105/tonne (£85 to central govt in tax, £20 to the operator, less running costs). Current landfill rate= 190,000 tonnes/yr.
- Incineration £85 tonne to operator (£0 tax), plus sale of aggregate, energy and hazardous waste, less running costs.
- Incineration generates £65 extra/tonne revenue.
- ROI circa >£24M (>12%) within 25yrs (with view to extending permit and contract to maximise profit to 35+ years as is common practice).
- Incinerator company claims burning will reduce central gov't tax from CCC by £2M net in landfill tax per year.

But, I has been proven that there is no need in Cambridgeshire for this facility. This is purely a developer profit lead application.

- CCC have concluded in their advanced further draft MWLP there is sufficient waste management capacity within Cambridgeshire and Peterborough (jointly) with regards to net self-sufficiency for preparing for reuse and recycling (including composting) and other recovery/treatment.
- Waste Needs Assessment which forecasts waste arising and the capacity needed to manage this over the period to 2036. It confirms that existing capacity will meet almost all their needs until 2036, and therefore no waste allocations are being proposed. Instead a spatial strategy and criteria-based policy will guide any future waste management development.

No allocations for new facilities have been made in the advanced further draft MWLP.

- In September 2018, Environment and Resources Minister Therese Coffey said, *there is 'sufficient capacity of UK energy-from-waste facilities' and she agreed with the EU Commission's concern there is too much incineration across the EU, saying that the UK's approach is consistent with this view, and with the move to remove energy recovery from inclusion in recycling targets.'*
- The appellant is not offering capacity for the incinerator exclusively to Cambridgeshire. Cambridgeshire's waste is not sufficient for the appellant to justify the investment. That is why the appellant has determined a 'local catchment area' comprised of 10 additional counties. 70% of the incinerator

capacity will be ringfenced for this large area of the UK, the remaining 30% is ringfenced for private commercial contracts with no geographical limitation. This is not a waste facility development for the local area, this is a presumptive financially driven waste facility development for Southern England.

One objective of the Cambs and Peterborough Core Strategy and further draft MWLP is to ensure that there is not an oversupply of waste facilities which could lead to excessive importation of waste, or that an overreliance is placed on one area to manage the waste of others. The appellant's demands for planning approval conditions that benefit their profits are not in the spirit of the core strategy

- xxi. CCC is 7 years into its 27-year £700 million Private Finance Initiative (PFI) deal to handle waste. In 2018 while the appellant pressed ahead with negotiating the contract, it also pressed ahead with a major planning application for an incinerator.
- xxii. Subsidies and cheaper energy.
- xxiii. The technology employed in this incinerator is outdated technology' that disqualifies it from entering auctions to be given subsidy. The incinerator would qualify in principle to 2 subsidy schemes:
  - i. Contract for Difference CFD (guarantees electricity price). Electricity is sold at market price (£70/unit) then a strike price (£100/unit) is negotiated with central government, providing the appellant with a £30/unit top up. The net effect is a guaranteed price to the market but usually a guaranteed high price for the privilege of fixing. The appellant would not be restricted to selling back to local communities.

In bidding for strike prices, the competition is fierce, and the subsidies are falling.

However, to qualify for the above schemes the nature of technology needs to be 'advanced' (government specification) such as gasification. Burning waste on a conventional grate technology is not considered advanced, it is a large version of how you burn wood on fire at home. Even modern versions are not classed as 'advanced'. The appellant can't claim CFD.

- ii. Renew Heat Incentive (ash for cash) RHI. Electricity and heat (either or both). There is no competition for RFI. If the appellant delivered to a local scheme they would automatically qualify. Big subsidies to claim on amounts provided to local schemes.

The appellant could apply for RFI which they won't have to complete for, if they promise to provide energy to potential new developments (but highly unlikely to provide to existing communities because the 'connect up' is commonly too costly due to lack of infrastructure).

- iii. N.B. -ROC (Renewable obligation certificate) schemes discontinued at market price (e.g. 70) then strike price (e.g. 100), then get top up of e.g. 30 net.
- xxiv. Is the appellant angling themselves for RFI which they won't have to complete for, on a weak promise to provide energy to potential new developments at preferential rate, but not to existing communities because the 'connect up' would be too costly? This will mean local taxpayers paying tax within their energy bills which goes to central government and the government give a handout to the appellant. The appellant has regularly claimed cheaper energy for households in Cambridgeshire.
- xxv. In 2016 the government decided to begin investigations into the need to introduce tax on waste incineration and to undertake a review of the charge on nitrogen oxide emissions. These investigations and discussions at central government level are ongoing.
- xxvi. Summary
- xxvii. There is no need for the facility in the county according to advanced emerging MWLP and Waste Needs Assessment.
- xxviii. The appellant needs to import waste from 11 counties and many commercial contracts to ensure economic viability.
- xxix. The application is lacking considerably in design, technology and scoping information about the heat offtake pipe.

- xxx. The proposal does not benefit the local area in terms of energy supply and reduced energy costs as the appellant claims and offers significant adverse impacts.
- xxxi. Incineration sits at the bottom of the EU Waste Management Directive EfW hierarchy due to it being the least sustainable and most environmentally damaging EfW option.
- xxxii. We recommend an extremely cautionary approach be taken when considering the 'benefits' of this proposal.

## **8. Operator Performance, Reputation and Economic Stability**

- i. The appellant argues that they are fit for purpose to run the proposed incinerator.
- ii. The appellant has claimed the incinerator will be 'safe' because it will run it in line with requirements of any EA permit it succeeds in gaining.
- iii. Many people are worried about the operator performance of the appellant who will run the incinerator.

### **iv. Evidence**

- v. EfW Incinerators are "critical" public services, and "safety critical" activities, which should require guarantees and indemnities for construction, ownership, operation and investment in maintenance over many years by "suppliers" or "partners" for "public procurements" (NPPF Procurement Policy Note – Supplier Financial Risk Issues - Information Note 02/13).
  - a. <https://www.gov.uk/government/publications/procurement-policy-note-02-13-supplier-financial-risk-issues>
- vi. All Energy from Waste plants are regulated by the Environmental Agency (EA).
- vii. Public Health England says- if a plant is well managed, they assume its ok (see section on Pollution- Impact on Health).
- viii. The Energy from Waste facility proposed at Waterbeach will have a footprint twice that of Ely cathedral, a roof height of 10 double decker buses at 44m (almost double the height of Kings college chapel) and an incinerator chimney stack rising to a staggering 80m high (equivalent to the height of 18 double decker buses and almost twice the height of Ely Cathedral). It will burn 8.75M tonnes of waste over 35years and likely longer.

It is imperative that any operator has a proven quality performance reputation.

- ix. Appellant's Performance Track Record with the EA
- x. Local recycling rates have been fallen year on year under the subcontractor, which nationally has a questionable performance history (well documented in national media), and whose Waterbeach waste park still has outstanding permit breaches under investigation by the Environment Agency. Cambridge manages just 46% recycling whereas many other areas like Wales achieve 70%. Incineration is not the answer to the problem of inadequate recycling- see section 'Wrong Solution'.
- xi. The appellant's track record with the EA doesn't provide much reassurance that they will not break permit clauses or laws. The appellant's WWMP has a history of breaching EA monitoring/emissions regulations and its permit and has been fined and made to pay compensation for causing adverse effects on human health.
- xii. It was fined £50,000 in September 2016 for breaching its permit at the Waterbeach site and causing personal injury to health. Mr Richard Banwell, prosecuting for the Environment Agency, said at the time, 'There was a history of non-compliance at the site'.
- <https://www.cambridge-news.co.uk/news/cambridge-news/amey-cespa-fined-50000-after-11926051>
- xiii. An FOIR to the EA in March 2018 confirmed series of long outstanding actions and concerns with the appellant. Facilities at WWMP affected include the composting operation, waste transfer station, MBT and MRF.
- [https://www.whatdotheyknow.com/cy/request/ameycespa\\_waterbeach\\_incinerator](https://www.whatdotheyknow.com/cy/request/ameycespa_waterbeach_incinerator)
- xiv. An FOIR to the Environment Agency in 2018 showed that the appellant has been breaching environmental permits at waste incineration facilities in the UK. Breaches include carbon monoxide breaches and the loss of the Continuous Emissions Monitoring System, a matter of utmost concern because without which emissions of dangerous ultrafine particles go undetected. In three recent local press articles (see below) a spokesperson of the appellant is quoted as saying 'all the issues have been rectified to the satisfaction of the Environment Agency'. But the Environment Agency had confirmed prior to the media statement that several issues regarding emissions remain unresolved.
- [https://www.whatdotheyknow.com/cy/request/foir\\_permit\\_compliance\\_by\\_amey\\_c](https://www.whatdotheyknow.com/cy/request/foir_permit_compliance_by_amey_c)
- <https://www.elystandard.co.uk/news/waterbeach-incinerator-concerns-1-5602403>
- xv. Gas leachate from the landfill, ground water quality and odour from the composting site at Waterbeach Waste Management Park have been breaching permit requirement over the past 9 months. Many of these remain unresolved. The Environment Agency told a local resident 'we do not consider them to be using appropriate techniques to mitigate odour from their composting activity'.

Env Agency FOI Ref: EAN/2019/120943 and EAN/2019/113372

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xvi. The appellant operates energy from waste facilities in Milton Keynes, the Isle of Wight and Knaresborough, Yorkshire. The Isle of Wight site is not fully operational yet, but fourteen breaches have been reported at their sites in Milton Keynes and Knaresborough. Three breaches of the environmental permit were reported at the Milton Keynes site which has only been operational since January of this year. Eleven environmental permit breaches have been reported at the Knaresborough site since 2017. The breaches include carbon monoxide breaches and the loss of the Continuous Emissions Monitoring System, a matter of utmost concern.

- i. The appellant's Nth Yorkshire incinerator (opened 2018) has already had several incidences of going above emittance guidelines before it even reached full processing power, putting air quality at risk.

[https://www.whatdotheyknow.com/cy/request/foir\\_permit\\_compliance\\_by\\_amey\\_c](https://www.whatdotheyknow.com/cy/request/foir_permit_compliance_by_amey_c)

- ii. These are extremely serious breaches, with potentially profound health impacts on the local population. We are not just talking about bad smells and flies, though these are bad enough. Particulate matter from incineration can include arsenic, mercury, cadmium and dioxins. How can a company with such a terrible reputation across several business sectors and incinerator permit compliance failures be trusted?

xvii. In Dec 2018, the Environment Agency ranked the appellant's Waterbeach site very low on their OPRA operational performance rating scale (we are awaiting updated FOI information).

xviii. Questionable Economic Stability

xix. The appellant is a joint company between AMEY and CESP, both wholly owned companies of the services division of the "overseas ultimate parent" FERROVIAL (Spain).

xx. The appellant and parent company Ferrovial are involved in many critical comments in press articles where their services have been involved. Articles and reports ask why various councils are so keen to pursue waste management contracts with such a disreputable company involved (the internet is awash with articles of legal cases, including contractual handcuffing and contractual breaching).

- o <https://www.healthandsafetyatwork.com/electrical-safety/amey-gloucester-steven-brown-cable-strike>

- <https://www.healthandsafetyatwork.com/construction/amey-lq-lafarge-aggregates-ashmac-construction>
- <https://www.healthandsafetyatwork.com/amey-cherry-picker-fine>
- <https://www.healthandsafetyatwork.com/content/rail-death-costs-amey-%C2%A320%2C000>
- [http://www.messengernewspapers.co.uk/news/15517440.Trafford\\_Council\\_39\\_s\\_partner\\_firm\\_39\\_fined\\_39\\_more\\_than\\_150\\_000\\_for\\_failing\\_to\\_meet\\_standards/](http://www.messengernewspapers.co.uk/news/15517440.Trafford_Council_39_s_partner_firm_39_fined_39_more_than_150_000_for_failing_to_meet_standards/)
- <http://aawoods.co.uk/company-fined-for-safety-failings-when-dealing-with-asbestos-at-a-school/>
- <http://www.southwestbusiness.co.uk/regions/gloucestershire/recycling-firm-amey-fined-for-rubbish-service-30082017075942/>
- <https://www.transportxtra.com/publications/transit/news/2198/network-rail-amey-fined-for-derailment/>
- <https://m.insurancebusinessmag.com/uk/news/construction-engineering/bam-ferrovial-kier-fined-over-1-million-for-construction-mishaps-75652.aspx>
- <https://www.irishtimes.com/news/world/europe/corruption-sentence-hits-catalonia-s-dominant-nationalist-party-1.3356372?mode=amp>
- <https://www.law360.com/articles/615481/spain-fines-waste-management-cos-111m-for-cartel>
- <https://www.businesswire.com/news/home/20160823005436/en/Ferrovial-executives-trial-connection-kickback-scheme-Spain>

There are many, many more online.

- xxi. CBWIN, has learned through a freedom of information request that worryingly Cambridgeshire County Council (CCC) is unable to perform a supplier assessment (economic or operational performance) on the appellant prior to the planning appeal decision, to ensure it will be run by a company fit for purpose. This is something that the county council may wish to do given the enormity of the development and far reaching impacts for the county. FOI also revealed:

'The Waste PFI contract allows the contract to be moved from one company to another in the event of an acquisition'

'Donarbon were selected through a public procurement process that requires assessments of a bidder (such as their Economic and Financial Standing) to be undertaken in order to be compliant with the Public Procurement Regulations that were in place at the time.'

'AmeyCespa acquired Donarbon after the procurement process had been completed, the contract had been signed and service delivery had commenced. The contract does not allow for any assessment of operator performance and supplier suitability in these circumstances'

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Amey Cespa took over the county's waste contract from Donarbon in 2010. There was no requirement then to prove its operational or safety qualifications, which meant their questionable track record with the Environment Agency was not scrutinised. The appellant now holds a 30-year, £700M PFI waste management contract with CCC.

[https://www.whatdotheyknow.com/request/council\\_and\\_county\\_officer\\_repor?unfold=1#incoming-1369348](https://www.whatdotheyknow.com/request/council_and_county_officer_repor?unfold=1#incoming-1369348)

- xxii. Ferrovial are under serious economic pressure. After making provisions for the write off of ~Euro 0.75Billion of losses by the services division, FERROVIAL have been required to make a formal statement in December 2018:

[https://www.ferrovial.com/en/ir-shareholders/significant-events/ferrovial-announces-the-classification-as-held-for-sale-of-its-services-activities-as-of-31-december-2018-resulting-in-the-recognition-of-a-provision-of-e774-m-due-to-the-impairment-of-the-value-of-i/?type=hechos\\_relevantes&title=ferrovial-announces-the-classification-as-held-for-sale-of-its-services-activities-as-of-31-december-2018-resulting-in-the-recognition-of-a-provision-of-e774-m-due-to-the-impairment-of-the-value-of-i](https://www.ferrovial.com/en/ir-shareholders/significant-events/ferrovial-announces-the-classification-as-held-for-sale-of-its-services-activities-as-of-31-december-2018-resulting-in-the-recognition-of-a-provision-of-e774-m-due-to-the-impairment-of-the-value-of-i/?type=hechos_relevantes&title=ferrovial-announces-the-classification-as-held-for-sale-of-its-services-activities-as-of-31-december-2018-resulting-in-the-recognition-of-a-provision-of-e774-m-due-to-the-impairment-of-the-value-of-i)

- xxiii. *"In 2019, FERROVIAL put its services division up for sale, with as yet no declared buyer. A new managing director and another director had already been appointed at the appellant company at the end of 2018.*

*The incinerator is a necessary money spinner for the financially unstable contractor, whose parent company Ferrovial has been trying to get rid of it due to significant losses and legal disputes (many of which are with UK councils). The Spanish giant recently slashed the Amey Cespa asking price by £650M leaving it valued at £88M. "*

<https://www.telegraph.co.uk/business/2019/02/27/ferrovial-slashes-value-uk-outsourcing-armamey-650m/>

<https://www.transport-network.co.uk/Birmingham-rejects-Amey-245m-settlement-deal/15748>

- xxiv. The appellant is refusing to reduce or remove the circa 250,000 tonnes landfill licence which means they could process 750,000 tonnes at the site. Their objective is not at all to reduce landfill but to maximise profit.

- xxv. The appeal would be justified in questioning any previous documents of "parental company" support for the appellant from FERROVIAL they should have received for the present proposal, (and FERROVIAL may wish to ask about existing contracts).

- xxvi. Defra's previous Chief Scientific Adviser Prof. Ian Boyd said: "If there is one way of quickly extinguishing the value in a material, it is to stick it in an incinerator and burn it. It may give you energy out at the end of the day, but some of those materials, even if they are plastics, with a little ingenuity, can be given more positive value."

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/>

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[environment-food-and-rural-affairs-committee/work-of-the-chief-scientific-adviser-defra/oral/78127.html](https://environment-food-and-rural-affairs-committee/work-of-the-chief-scientific-adviser-defra/oral/78127.html)

- xxvii. Summary
- xxviii. A company with such a proven poor track record should not be permitted to build and run a hugely controversial and dangerous plant, especially when questions remain around the economic viability of the appellant's proposal as well as their reliability as an operator. This is a great worry to local people.
- xxix. The appellant is failing to safely run their facilities at WWMP and other incineration plants by failing to adhere to EA permit regulations.
- xxx. It is incumbent upon the planning inspectorate to take an extremely cautious approach to deciding the outcome of this appeal when the appellant is known to be disreputable.

## 9. Incineration: The Wrong Solution

- i. Waste Incineration is Unsustainable
- ii. Incinerators that burn hazardous waste will never solve toxic waste problems. A clean production approach, which substitutes safe materials and processes to stop the generation of hazardous waste in the first place, is needed and is a strong focus of central government. Equally, local authorities championing zero waste initiatives and moving waste into the circular economy are key strategies to solving waste problems.
- iii. Waste-to-Energy (WtE) is a disputed technology amongst sustainability experts, with many advocating against them, as they do not contribute a circular, cradle-to-cradle solution for waste management. Defra Chief Scientific Adviser, Professor Ian Boyd is one such opponent. Appearing before the Environment, Food and Rural Affairs Committee (EFRACOM) on the 31st of January 2018, Professor Boyd presented the recently published '*From Waste to Resource Productivity*' report. *The report highlights cited contradictions between waste incineration and efforts to move towards more efficient and sustainable uses of resources. However, the European Commission has argued that "Waste-to-energy processes can play a role in the transition to a circular economy provided that the EU waste hierarchy is used as a guiding principle and that choices made do not prevent higher levels of prevention, reuse and recycling"* Malinauskaite et al. 2017, p. 2018 Municipal solid waste management and waste-to-energy in the context of a circular economy and energy recycling in Europe. *energy*, 141, 2013-2044).<sup>1</sup>
- iv. Figure 1: The waste hierarchy



- v. This hierarchy has been well observed in countries such as Sweden where household waste recycling rates have reached nearly 100% and where incineration plants linked to district heating run primarily off imported waste. From an international perspective, this success has had the adverse effect of allowing countries like Sweden to meet their

national renewable energy targets via the WtE incineration industry, whilst neighbours, such as Norway lack incentives to increase recycling rates. Currently a greater share of Norway's waste goes to incineration than is recycled, with a recycling rate (42%) below that of the UK.

- vi. In areas in Europe and the UK where incineration is used, recycling rates have gone down. The appellant clearly suggests that this development will increase recycling rates in Cambridgeshire. Unless the appellant is introducing additional technology that has not been specified in their application, this suggestion is misleading. This is because the appellant already has both a Mechanical Biological Treatment facility and a Materials Recovery Facility. The only way incinerators increase recycling are if they are part of a waste management site/pathway where waste passes through these two key forms of technological engineering first. Given that the appellant states that all of the waste coming into WWMP already passes through these two technologies, and all recyclable materials are recovered, it is simple logic that an incinerator cannot contribute to increasing recycling rates. There are many effective solutions to increasing recycling in Cambridgeshire to hit the DEFRA expectation of 50% by 2020 and 65% thereafter, or even more aspirational rates. We have provided these in section titled 'Start, Stop, Continue'.
- vii. Recognizing the potential adverse effects of the WtE industry for sustainable development, the Commission has also urged member states to gradually phase-out public support for WtE, introduce or raise incineration taxes, and carefully consider the risk of "stranded assets" when supporting investment in WtE. In the Netherlands, a district heating (DH) network was planned in Rotterdam, to be powered by a nearby waste incinerator. Due to WtE overcapacity, however, the plant was suddenly closed in 2009 and the network plans were nearly aborted (Hawkey and Webb, 2014). The risk of stranded assets, as in the Rotterdam case, is of particular concern in countries such as the UK where separate collection and recycling obligations have not been met and where much-needed improvements in recycling would reduce the availability of feedstock of new incineration plants over their lifespan. According to a recent study published in the journal *Energy*, the UK has already reached WtE *overcapacity* in the context of the circular economy, as 1/3 of waste is incinerated and less than half is recycled.
- viii. Defra's previous Chief Scientific Adviser Prof. Ian Boyd said: "If there is one way of quickly extinguishing the value in a material, it is to stick it in an incinerator and burn it. It may give you energy out at the end of the day, but some of those materials, even if they are plastics, with a little ingenuity, can be given more positive value." <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environment-food-and-rural-affairs-committee/work-of-the-chief-scientific-adviser-defra/oral/78127.html>

ix. Burning garbage to generate power is neither clean nor 'renewable'.

To the extent that waste is *renewable*, incinerating it generates very little *energy*; to the extent that incinerating it produces *energy*, little is *renewable*.

Under EU legislation, energy from fossil-fuel derived waste cannot be classed as renewable and its inclusion in the Renewables Obligation may therefore be open to challenge.

*“The perverse designation of incineration as “renewable” subsidises a practice that wastes energy, kills jobs, and produces toxic pollution. Including incineration in legal definitions of renewable energy hampers investments in cleaner, more equitable sources of local energy and waste management alternatives. Instead, investments in distributed and renewable resources like solar provide electric customers—individually and collectively—with greater choice over the source and structure of their energy system. Investing in recycling and composting programs to manage our waste builds wealth locally, creates jobs, enhances soils, and helps support more resilient and healthy communities”.*

<https://cleantechnica.com/2018/12/17/report-waste-incineration-a-dirty-secret-in-how-states-define-renewable-energy/>

- x. For an incinerator to produce renewable energy in a meaningful sense, it needs to meet the criteria stipulated by official definitions and government policies on renewable energy. The European Commission’s Renewable Energy Directive defines ‘energy from renewable sources’ as including only non-fossil sources, namely *“wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases”*.
- xi. In this sense, a considerable amount of the material in our waste isn’t renewable. In its recent document *Energy from Waste: a Guide to the Debate*, Defra recognises this definition in stating that:
- xii. *“Energy from residual waste is only partially renewable due to the presence of fossil-based carbon in the waste, and only the energy contribution from the biogenic portion is counted towards renewable energy targets (and only this element is eligible for renewable financial incentives).”*
- xiii. Waste contains fossil derived materials such as plastics. However, it also contains biogenic materials such as paper, card and food waste. While it may be environmentally (and often economically) preferable to recycle them, they are arguably just as renewable as any other form of biomass.
- xiv. That said, many of the biogenic materials you find in the residual waste stream, such as food, paper, card and natural textiles, are derived from intensive agriculture – monoculture forests, cotton fields and other “green deserts”. The ecosystems from which these materials are derived could not survive in the absence of human intervention, and of energy inputs from fossil sources. It is, therefore, more than debatable whether such materials should be referred to as renewable. However,

even granting them this status, the claim that residual waste is a source of renewable energy is problematic.

- xv. Cambridge is a city and county of pioneering innovation and this proposal does not reflect that at all.

Take for example the Cambridge Eco Living Sustainability Day on 22nd Sept

<http://www.cambridgeindependent.co.uk/cambridge-to-hold-goplasticfreeday-and-its-first-eco-living-festival-1-5561734>

Take also the local research fellowships initiative just launched by HRH Prince Charles and Cambridge University (and backed by some of the biggest local businesses and science sector leaders) — a project that among other things aims to limit industrial damage to the environment, improving sustainable approaches, and reduce carbon emissions.

<https://www.bbc.com/news/education-44770776>

- xvi. The economics of waste incineration plants don't add up
- xvii. Incinerators have proven risky investments for cities, particularly as energy prices decline and a growing number of plants are unable to cover operating costs or remain competitive. Tip fees at incinerators are often two to three times higher than comparable recycling or composting costs. Incinerators also lose in a job's comparison; composting sites, for example, can create four times the number of local jobs per unit of waste processed than incinerators.
- xviii. Even if all the PVC and chlorinated wastes were eliminated from the waste stream, incineration would still be a poor solution due to high costs, loss of jobs in the recycling industry, lost profits from secondary resale and on-going contamination from heavy metal, hydrocarbon and other air emissions. Incineration relies upon the continued generation of waste (250,000 Tonnes/yr. in respect of this incinerator) to support the high operating costs. Pressure to pay back the high cost of building incinerators has had the effect of encouraging and perpetuating waste generation.
- xix. Recycling rates are getting worse not better in Cambridgeshire. East Cambs managed 52.4% 2016/17, a drop of 4% since 2015/16. South Cambs managed 46.1% 2016/17, dropping a massive 11.4% since 2015/16. Compare this to Powys in Wales who achieved 65.2% 2016/17.
- xx. *“Continued investment in incineration inhibits investment in research and development of more sustainable waste minimisation practices, as well as the exploration and development of products and processes that do not use toxic chemicals in the first place. Dispersing persistent, bio accumulative pollutants into the air from incinerator emissions creates more pollution problems. Once an incinerator is built, ongoing toxic waste generation is legitimised and there is little incentive to investigate process changes within industry even if cleaner production methods are more profitable”.* Green Peace: Alternatives to Incineration

[www.greenpeace.org/international/en/campaigns/detox/incineration/alternatives-to-incineration/](http://www.greenpeace.org/international/en/campaigns/detox/incineration/alternatives-to-incineration/)

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<https://sciencing.com/landfills-vs-incinerators-5523826.html>

- xxi. Incinerators provide a classic case of environmental injustice.
- xxii. Pollution produced by burning garbage subjects' communities near waste incinerators to harmful, costly, and avoidable public health risks.
- xxiii. Smoke and ash emitted by the chimneys of incinerators include acid gases, nitrogen oxide, heavy metals, particulates, and dioxin, which is a carcinogen. While incineration pollution control technology is evolving to reduce these pollutants, it has been found that even with controls in place, remaining pollutants including dioxins still enters the atmosphere and science shows that the cumulative effects of this occurring 24/7 for decades contributes to worsening air quality.
- xxiv. When UKWin corrected 2 flaws in the appellant's Carbon Analysis (the treatment of biogenic carbon sequestration in landfill and the electricity grid offset) the applicant's own scenario for electricity-only incineration with 50% biogenic carbon showed the proposal to be 30,723 tonnes of CO<sub>2</sub>e a year worse than sending the same waste untreated to landfill (and 21,336 tonnes of CO<sub>2</sub>e worse than sending the same waste untreated to landfill even if heat were to be exported from the proposed Waterbeach incineration facility). The appellant has therefore shown through their own scenario that their proposal could be expected to be worse than landfill, and this should weigh heavily against this application in the planning balance in relation to relevant local and national planning policies on climate change.

It is further noted that the applicant has only compared their proposal to sending the same waste untreated to landfill. If they had instead compared their proposal to sending the waste to a more efficient incinerator, or an alternative EfW solution higher in the EU Waste management directive hierarchy the Waterbeach incinerator proposal would have fared even worse.

- xxv. More Incinerators Are Not Needed Here
- xxvi. Eunomia's 8th Residual Waste Infrastructure Review '*UK remains on track to exceed the required level of residual waste treatment capacity by 2019/20 (or by 2018/19 when export of RDF is included)*'.  
<https://www.eunomia.co.uk/reports-tools/residual-waste-infrastructure-review-8th-issue/>
- xxvii. Facilities either currently operational, being built or planned and expected to be operational by 2019/20 are collectively capable of processing 23.9 million tpa of residual waste. Fully utilised, this will exceed the 21.6 million tonnes of residual waste expected to be produced in the year.
- xxviii. If one combines Eunomia's forecasts with the 2015 & 2020 trends for English waste arisings set out in the Government's February 2013 paper *Forecasting 2020 waste arisings and treatment capacity* then there is an estimation that

there will be more residual waste treatment capacity than residual waste arisings.

- xxix. Eunomia's report warned that 'an increase in the number of incinerations, advanced conversion technology and mechanical biological treatment facilities would lead to a number of them going bust by 2030 as available feedstock runs out'.
- xxx. EU Directive recycling targets currently 50% set to increase, adding further to the incinerator over capacity problem.

See section on Pollution- Causes of environmental issues by waste incinerators, specifically page 35.

- xxxi. The Circular Economy
- xxxii. If you build incinerators it creates a market for the next 20 to 30 years for single-use plastics, which is the very thing we need to be focusing on reducing right now.
- xxxiii. The Consultation Draft of the Cambridgeshire Waste and Minerals Local Plan describes the circular economy and the overarching aim of 'moving waste up the Waste Hierarchy'.
- xxxiv. A circular economy seeks maximum resource efficiency and aims to keep products, components, and materials at their highest value at all times. As a replacement for the historic 'linear economy', which takes, makes and disposes, a circular economy uses products for as long as possible, before utilising their materials in the generation of new products to reduce the need to use new natural resources. Only when no further benefit can be recovered from a resource should it be disposed of.
- xxxv. Taking proper account of the EU Circular Economy Package [E7] is important in assessing this application for a facility that is designed for 30-40 years of operation.
- xxxvi. A circular economy implies reducing waste to a minimum. When a product reaches the end of its life its materials are kept within the economy wherever possible. These can be productively used again and again, thereby creating further value.
- xxxvii. Measures leading towards a circular economy include reusing, repairing, refurbishing, recycling and composting existing materials and products. What used to be considered as 'waste' can be turned into a valuable resource.
- xxxviii. True innovation comes from not seeing discarded material as waste at all, but rather seeing it as a vital component of an increasingly circular economy. For those materials that could have been recycled or composted yet are being sent to either

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landfill or incineration, the focus should thus be on investigating the reasons why this material will not be recycled, e.g. is it a lack of appropriate sorting, reprocessing and/or composting infrastructure, or inefficiencies in household collection, or a lack of public knowledge, and on supporting innovation toward a circular economy as appropriate.

- xxxix. Incineration removes resources from material and biological cycles. Building new facilities to incinerate such resources perpetuates the linear economic model, based on a 'take-make-consume-throw away' pattern.

The collective term 'Energy from Waste' is used in the Cambridgeshire and Peterborough joint draft MWLP. We have fed into the consultation pointing out that this umbrella requires refining to optimise the adoption of the most innovative forms of EfW in Cambridgeshire. Incineration of waste is classified as the least favourable form of generating energy from waste by the EU, Defra and global waste management expert organisations such as Eunomia/Wrap. This is because it is far less efficient and far more damaging to the climate than all other EfW technologies.

- xl. A report of the European Environment Agency (EEA) clearly shows that incineration is a leakage from the circular economy that should be minimised. The EEA's report, an illustration from which is reproduced below, states that one of the central pillars of a circular economy is feeding materials back into the economy by avoiding sending waste to landfill or incineration. Avoiding landfill and incineration means capturing the value of the materials as far as possible and reducing losses from the circular economy.

- xli. European Environment Agency description of the circular economy:

- a. The European Environment Agency (EEA) 'Circular Economy in Europe' (2016), Figure 1.1 on Page 10, available from: [https://www.eea.europa.eu/publications/circular-economy-in-europe/at\\_download/file](https://www.eea.europa.eu/publications/circular-economy-in-europe/at_download/file)
- b. The Ellen MacArthur Foundation speaks of a number of key benefits of moving to the circular economy, including large net material savings and reduced exposure to waste material price volatility, increased innovation and employment creation potential, and increased resilience in the economy and in living systems.
  - i. A report commissioned by the Ellen McArthur Foundation ('Towards the Circular Economy) notes a wider range of benefits of the circular economy, including lowering current carbon dioxide emissions.

Towards the Circular Economy:

<https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf>

Growth Within A Circular Economy, Vision for A Competitive Europe

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<https://www.ellenmacarthurfoundation.org/publications/growth-within-a-circular-economy-vision-for-a-competitive-europe>

- c. The employment potential offered by moving towards a circular economy in West European countries is illustrated and quantified also by a report by the Waste and Resources Action Programme (WRAP.org), which states: *“By 2030, expansion in circular economy has the potential to create 1.2 to 3 million jobs in Europe and reduce unemployment by around 250,000 to 520,000. Focussing on materials productivity highlights the true potential of an expansion in circular economy”*.  
‘Economic Growth Potential of More Circular Economies’ (WRAP, 9th September 2015)  
[http://www.wrap.org.uk/sites/files/wrap/Economic%20growth%20potential%20of\\_more%20circular%20economies.pdf](http://www.wrap.org.uk/sites/files/wrap/Economic%20growth%20potential%20of_more%20circular%20economies.pdf)
- d. The UK government responded in detail to 3 European Commission consultations on the circular economy and waste markets for the ‘EU Action Plan for The Circular Economy’  
The UK government chose to submit a joint response for the public consultations on the:  
Circular Economy  
Functioning of Waste Markets in the EU  
  
The third consultation, aimed at Member States, asked for detail on the technical workings of existing waste legislation.  
The consultations formed the basis for the Commission’s Circular Economy package and the ‘EU Action Plan for The Circular Economy’.  
<https://www.gov.uk/government/publications/circular-economy-and-waste-markets-uk-government-response-to-european-commission-consultations>
- e. The EU’s Action Plan for The Circular Economy says:  
*“The circular economy will boost the EU’s competitiveness by protecting businesses against scarcity of resources and volatile prices, helping to create new business opportunities and innovative, more efficient ways of producing and consuming. It will create local jobs at all skills levels and opportunities for social integration and cohesion. At the same time, it will save energy and help avoid the irreversible damages caused by using up resources at a rate that exceeds the Earth’s capacity to renew them in terms of climate and biodiversity, air, soil and water pollution”*.  
  
[http://ec.europa.eu/environment/circular-economy/index\\_en.htm](http://ec.europa.eu/environment/circular-economy/index_en.htm)  
  
<https://www.eubusiness.com/topics/environ/circular-econ-2>
- f. The EU Action Plan for The Circular Economy concludes 54 key actions that have been created from the wealth of evidence from leading climate scientific experts and expert economists and are believed to deliver a major shift towards a Europe wide circular economy that has benefits for the rest of the world too. The details within each of the 54 actions are continuing to develop

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as new research and technological innovations emerge but the 54 actions are confirmed.

- xlii. DEFRA are already taking significant steps to tackle plastic waste.

They are introducing a ban on plastic microbeads and have taken nine billion plastic bags out of circulation with their carrier bag charge.

They recognise more needs to be done to protect the environment from the scourge of plastics and have launched a call for evidence around deposit reward and return schemes for plastic bottles and other drinks containers.

Deposit Return Scheme legislation which has just completed first stage of formal consultation (13/5/19). The joint aim of the UK, Welsh and Ireland governments and DEFRA is to promote the return of drinks containers, leading to increased recycling rates and a reduction in littering. The legislation is expected to be live early 2020.

<https://consult.defra.gov.uk/environment/introducing-a-deposit-return-scheme/>

- xliii. The need for this incinerator will be even less in the very near future as initiatives from DEFRA reduce waste production and promote the circular economy.

- xliv. Newbuild standards

- xlv. NPPF: In Planning for climate change, Local Planning Authorities are required through their Local Plans to help increase the use and supply of renewable and low carbon energy and heat by (a) providing a positive strategy for energy from these sources that maximises the potential for sustainable development, (b) identifying suitable areas for renewable and low carbon energy sources, and by (c) identifying opportunities for development to draw its energy from decentralised, renewable or low carbon energy supply systems, and for co-locating potential heat customers and suppliers” (Para 151).

- xlvi. Section 5 of the Waterbeach New Town SPD explores the ‘Guiding Principles’ for key land uses and related issues that are not ‘fixed’ by the SPD; this includes a section on Environmental Sustainability and Climate Change. The ‘sustainable design principles’ that should be considered in proposals for Waterbeach New Town include “Incorporating energy and water efficiency measures into neighbourhood and building design, and investigating opportunities for on-site renewable or low-carbon energy generation”.

With regards to energy efficiency principles, the SPD states that the New Town will be expected to be designed and built in accordance with the following energy hierarchy of:

Reducing energy by design: Through consideration of building orientation and layout (for example, to promote passive heating in winter and cooling in summer), optimising opportunities for natural light; and by adopting a ‘fabric-first’ approach to building design.

- Using energy efficiently: Through integration of efficient systems for heating, cooling and where possible, heat recovery technologies.
- Using renewable and low-carbon energy: and incorporating renewable energy technologies within the development e.g. photovoltaic, district heating networks, etc. Proposals for renewable or low carbon technologies must demonstrate how they mitigate any adverse impacts on the environment.
- Reducing energy by design: Through consideration of building orientation and layout (for example, to promote passive heating in winter and cooling in summer), optimising opportunities for natural light; and by adopting a ‘fabric-first’ approach to building design.

In terms of renewable and low carbon technology principles, the SPD requires developers to explore, on a sitewide basis, the significant opportunity to incorporate on-site renewable and low-carbon energy generation solutions within the New Town such as gas powered turbines, electrical storage, district heating, micro-grids and Combined Heat and Power (CHP). The SPD requires this to be illustrated through the Energy Strategy accompanying the outline planning application. Additionally, it suggests that building-specific technologies such as solar photovoltaic panels (PV), solar water heating, Air Source Heat Pumps (ASHPs), Ground Source Heat Pumps (GSHPs), Water Source Heat Pumps (WSHP) and biomass should also be actively considered.

- xlvi. Based on the energy hierarchy (see Figure 2), technologies that reduce energy demand are the most sustainable and should therefore be prioritised. The Code for Sustainable Homes, BREEAM, and Passivhaus design all provide developers with design and technological solutions to reduce energy demand, particularly from space and water heating which accounts for approximately 80% of domestic energy use (BEIS(a), 2018). Although the Code for Sustainable Homes has been scrapped, “*local authorities are not restricted in their ability to require energy efficiency standards above Building Regulations*” (UKGBC, 2019). As such, local authorities in Cambridgeshire can use powers to require higher standards than current national standards for newbuilds. Likely, however, the policy vacuum on newbuild energy standards will be addressed in the near future, based on recommendations from the UK Committee on Climate Change.

European Commission. Communication from the commission to the European parliament, the council, the

European economic and social committee and the committee of the regions - the role of waste-to-energy in the circular economy. COM/2017/0034 Final. 2017.

<https://ec.europa.eu/environment/waste/waste-to-energy.pdf>

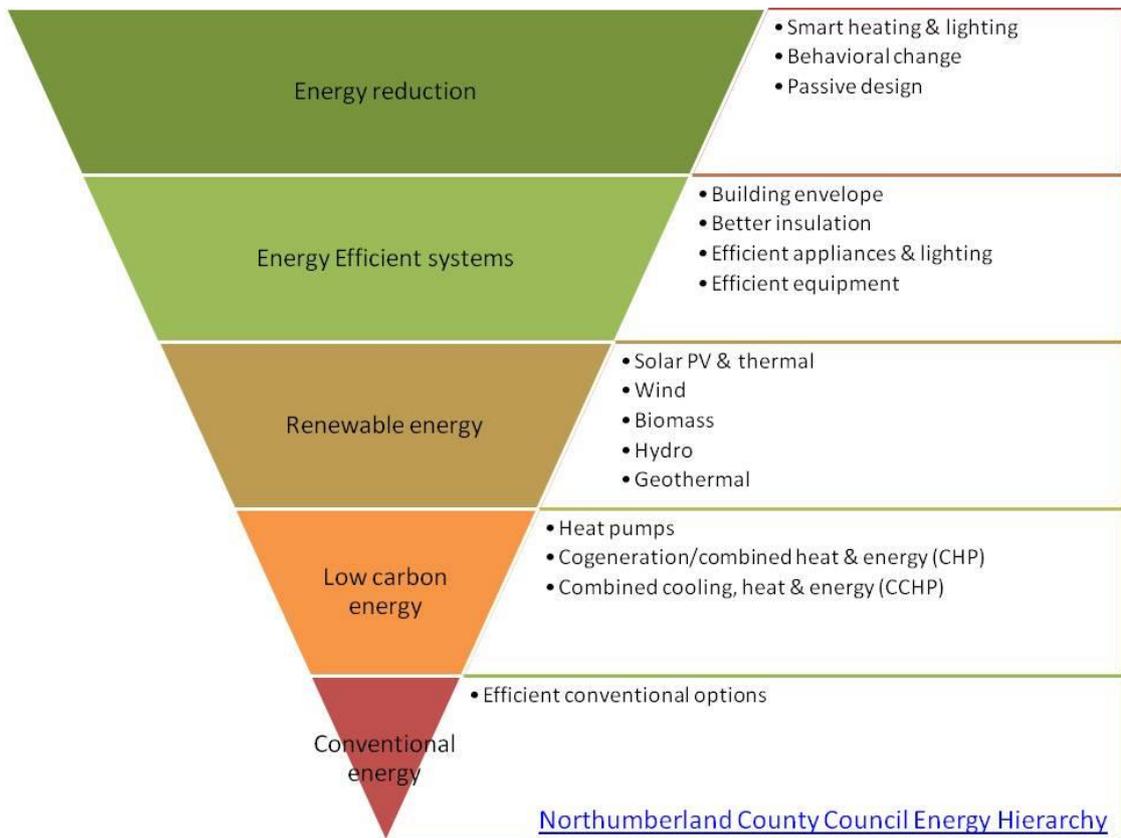
UKGBC, 2019, Sustainability standards in new homes, policy playbook,  
<https://www.ukgbc.org/ukgbcwork/sustainability-standards-new-homes/>

xlvi. Alternatives to Sustainable Energy Generation

xlix. In the UK, heat accounts for almost half of energy consumption and around one third of our overall carbon emissions (Clean Growth Strategy, 2018). Under the 2008 Climate Change Act, Government has committed to reducing annual greenhouse gas emissions by at least 80% by 2050 compared to 1990 levels. Based on advice from the UK's Committee on Climate Change (CCC), the economically efficient achievement of this target will require full decarbonization of all heat in buildings. Because waste incineration provides a 'low carbon' source of energy, not carbon neutral, plants operating past 2050 would require offsetting in order for the UK Government to meet its legally binding target. Whilst this is a feasible option, we have already established that waste incineration is not a sustainable source of energy. There are, however, a number of alternative technologies available to decarbonize heat and electricity presented below.

- I. Recycling and waste reduction must be considered as our first line of defence to reduce our overall waste stream, and this also must include composting our organic waste instead of throwing it away. When we think about it, there truly is no "away," as all waste must go somewhere. Many of the materials that are thrown away have the potential to be used to produce new items, and not reusing these materials is a large waste of resources.
  - Ground and air source heat pumps
  - Heat centres / CHP-DH, such as the village heat network being planned in Swaffham Prior with heat being extracted from groundwater (Cambridgeshire County Council, 2019)
  - Electric heating (decarbonisation potential reliant on decarbonisation of electricity)
  - Solar thermal
  - Hydrogen heating – Currently, Government is investigating a transition from natural gas to hydrogen heating to enable the continued use of the national gas grid. Hydrogen is not currently proven as a fuel for heat in buildings (BEIS(b), 2018); however, Government is investing in pilots to progress this potential pathway of heat decarbonization.

ii. Figure 2: The energy hierarchy



- lii. Summary
- liii. Incineration of waste is unsustainable.
- liv. There are more efficient and climate friendly alternatives.
- lv. Instead of becoming overly reliant upon waste incineration as an energy source, renewable and sustainable forms of energy production such as wind and solar should be our go-to energy technologies, and we need to be using them as much as possible first.
- lvi. Current development build standards recommend the adoption of these better technologies for generating energy over waste incineration.

## 9. Better Plans

- i. *“More than 90 percent of materials disposed using incinerators and landfills could instead be cost-effectively reused, recycled and composted”, according to ILSR’s Stop Trashing The Climate Report*  
<https://ilsr.org/stop-trashing-the-climate/>
- ii. The ideal scenario, of course, is to not produce any waste that endures, but to have an entire system where materials are returned and utilized again in some way. That is what nature does, and that is what we also must learn to do.
- iii. Examples of sustainable, renewable energy generation solutions that would better benefit the new town and wider county:
  - Biomass
  - Hydro-electric power
  - Wind turbines
  - Mechanical and Biological Treatment (MBT)  
 Eunomia’s report for Friends of the Earth, “A changing climate for energy from waste” found that the best way to treat residual waste in terms of climate change is by mechanical biological treatment (MBT). Cambridge MBTs are not at capacity. MBTs can scale up or down according to changing need.
  - Re-use and recycling- why not a state of the art recycling centre to reduce the need for extraction and processing of raw materials, saving energy and CO2 emissions.
  - Anaerobic digestion-produces biogas that can be used to generate 100% renewable electricity and heat.
  - Mining landfill for recyclable materials.
  - Composting.
  - Ground heat sources.
  - Material Recycling Facility (MRF) technology
  - Many more
- iv. Other initiatives that Cambridgeshire should consider to drastically reduce waste produced and landfill:
  - Household separation- untapped recycling potential
  - Separation of household hygiene waste and nappies to reduce contamination of recyclable materials
  - Household education- what doesn’t get recycled because of how it is placed into blue bins (e.g. bottles with lids on, contaminated food packaging)
  - Business recycling project investment
  - Incentivising businesses and communities to recycle more and re-use more
  - Provide more clothing recycling opportunities

- Household education on how eating healthy and saving left overs helps reduce waste
- Incentivise communities and businesses to create less waste- this would encourage them to buy less and make better choices with how items are packaged
- Shop smart education
- How to store food education
- Swap paper for cloth
- Pay-for-garden-waste schemes
- Frequency of bin collections – reduce the collections to every 3 weeks to encourage people to produce less waste
- Set up trail-blazer communities – Communities that have access to resource, skills and permission to deliver solutions to reducing, re-using and recycling more in their community. Best practice can be shared then to other communities- creating a simple, effective and powerful movement. CBWin would gladly take this on in Waterbeach.

- v. Summary
- vi. Each generation should be able to enjoy the benefits of economic growth, higher incomes and the natural environment they live in. Seeking to extract the value from what we throw away, which would otherwise be burned or buried as waste is crucial if we are going to make this a reality.
- vii. Innovative partnerships between the council that shares resources and waste services, and markets recyclable materials as a collective, create economies of scale and will lead to waste reduction.
- viii. Prioritising resource productivity has many potential benefits, including wealth creation, new skilled jobs in the industrial and manufacturing sectors, reduced greenhouse gas emissions and a better environment.
- ix. These solutions would help CCC meet their landfill allowance schemes, reduce landfill taxation, are more profitable, have a much lower carbon footprint than incineration, create more jobs, create less pollution, enable the county to move faster towards the circular economy, enable the county to become self-sufficient in waste management in line with government direction, can be based locally so reducing traffic, are more environmentally friendly, cheaper, more flexible, quicker to implement and best for the environment.