

Examples of incineration harming recycling (UKWIN, July 2019)

In the UK, incineration capacity is accompanied by artificially low marginal costs because the majority of the true costs of waste incineration are not allocated to a per-tonne gate fee.

For non-merchant incinerators, once incineration capacity is paid for (or is committed to being paid for) then the amount charged per tonne is artificially lowered, meaning that the amount saved through avoiding incineration is artificially lowered, e.g. due to put-or-pay clauses in the long-term waste contracts. Furthermore, there are unpaid environmental externalities such as that recognised by Defra with respect to the greenhouse gasses produced when burning plastics¹.

In essence, this means that, for both household waste and business waste, the 'incentives hierarchy' does not always currently match the waste management hierarchy, and therefore environmentally harmful activities are improperly encouraged and the incentive to invest in recycling and waste education is undermined. It is UKWIN's experience that this has impeded recycling across England.

A selection of relevant quotes is provided below, followed by examples of specific instances where incineration (and associated waste management contracts) was cited by councils as a barrier to improved recycling and composting in a local area.

Eunomia Managing Director Mike Brown noted in September 2012 that:

"Most local authorities that started incinerator projects, often with government PFI support, did so with a clear commitment to burn only what couldn't be recycled, but then found themselves tempted by a business case that stacked up better for a big plant than for a small one. Once the incinerator is built, they have to keep it supplied and rapidly the economic logic of return on investment trumps concerns about recycling."²

Defra's November 2012 statistical release noted:

"At Local Authority level, individual recycling rates ranged from 14 per cent to 69 per cent...lower rates could result from an authority focusing on avoiding landfill by investing in incineration and targeting its waste management policies on that treatment solution, rather than poor recycling awareness or initiatives."³

The European Commission's Communication on 'The role of waste-to-energy in the circular economy' from 26th January 2017 explains that incineration can pose a barrier to higher rates of recycling, stating:

"...the statistics show that some individual Member States are excessively reliant on incineration of municipal waste...such high rates of incineration are inconsistent with more ambitious recycling targets."⁴

¹ The Economics of Waste and Waste Policy. Waste Economics Team Environment and Growth Economics, Defra (June 2011). Available from: <http://www.defra.gov.uk/publications/files/pb13548-economic-principles-wr110613.pdf>

² The tax that dare not speak its name. Mike Brown, September 2012. Available from: <http://www.isonomia.co.uk/?p=1250>

³ Statistical Release: Local Authority Collected Waste Management Statistics for England – Final Annual Results 2011/12. Defra, November 2012. Available from:

https://webarchive.nationalarchives.gov.uk/20130222092708/http://www.defra.gov.uk/statistics/files/mwb201112_statsrelease.pdf

⁴ <http://ec.europa.eu/environment/waste/waste-to-energy.pdf>

Professor Ian Boyd, Chief Scientific Adviser, Department for Environment, Food and Rural Affairs told EFRACOM in January 2018 that:

"...It is a personal view, but I think that incineration is not a good direction to go in. If you are investing many tens of millions, probably hundreds of millions, in urban waste incineration plants, and those plants are going to have a 30-year to 40-year lifespan, you have to have the waste streams to keep them supplied. That it is a market pull on waste. It encourages the production of waste. It encourages the production of residual waste. It encourages people to think that we can throw what could be valuable materials, if we were to think about them innovatively, into a furnace and burn them. I am not saying that incineration should not happen at all; I am saying that we need to think about it a lot harder than, perhaps, we have done in the past. Sweden, for example, has invested a lot in waste incineration plants. I worry that it is just encouraging the production of residual waste, which could be used in other ways."⁵

The London Assembly noted in February 2018 that:

"Investing in more EfW can negatively affect long term recycling rates. This investment needs to be paid for by an assured income stream, usually through contracts with local authorities to pay the EfW operator to take waste. Contracts are often lengthy – the majority are over 20 years. The terms of contracts, such as minimum annual payments, or a low fee per tonne of waste, can undermine the financial viability for the local authority of reducing waste, or sending it to other destinations such as recycling."⁶

Nottinghamshire (2014/15)

In October 2014, a joint statement from Nottinghamshire County Council (NCC) and waste incineration company Veolia stated: "A simple financial assessment for adding food waste to the green waste bins has however already been undertaken. Based on the likely capture rates for food waste, plus the current and potential gate fees for the processing of green waste and mixed green and food waste, together with the favourable gate fees at the Eastcroft Energy from Waste plant, there is currently no financial case for the County Council to propose the introduction of food waste into the green waste bin".⁷

The Joint Waste Management Committee Minutes for 8th July 2015 included an NCC presentation that placed even more emphasis on the gate fees, stating: "Residual waste composition analysis...found that on average it [the residual waste stream] contained...30% of raw and cooked/processed food (There are however significant cost issues around collecting and disposing of food waste other than through the cost effective Eastcroft EfW [incineration] facility)".⁸

This is indicative of the way artificially low incineration costs can result in councils deciding not to invest in the higher tiers of the waste hierarchy.

⁵ Oral Evidence: The Work of Defra's Chief Scientific Adviser, HC 775. Available from: <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environment-food-and-rural-affairs-committee/work-of-the-chief-scientific-adviser-defra/oral/78127.html>

⁶ London Assembly Environment Committee. Energy from Waste report (February 2018). https://www.london.gov.uk/sites/default/files/waste-energy_from_waste_feb15.pdf

⁷ https://www.whatdotheyknow.com/request/joint_waste_management_committee#incoming-826103

⁸ https://www.whatdotheyknow.com/request/joint_waste_management_committee#incoming-826103

Brighton and Hove (2017 and 2018)

It was reported in January 2019 that:

"Brighton and Hove has a recycling rate of 30%. The council is restricted to collecting plastic bottles from householders for recycling as a result of its contract with Veolia; many other UK councils collect trays and other plastic recyclate along with bottles.

[Caroline] Lucas said: 'Brighton and Hove council have a 30-year PFI contract with Veolia. They are refusing to change the contract so that a wide range of plastics can be recycled. The council doesn't have the £1m for the required machinery at the Veolia plant to enable a wide range of plastic to be recycled.'"⁹

To quote Brighton & Hove City Council's letter to Dr Therese Coffey MP on Brighton & Hove City Council Recycling Rates:

"...in terms of contractual status, in partnership with East Sussex County Council, boroughs and Districts, Brighton & Hove City Council is contracted to Veolia as part of the 30 year PFI contact that was awarded in 2003. There are therefore 17 years of this contact remaining. Veolia will only take limited types of materials as they state they cannot find a guaranteed end market for products that can be recycled, such as certain types of plastics. Whilst other Councils can and do recycle these kinds of materials, the B&HCC is contractually obliged under the terms of the PFI agreement to provide all waste materials, whether residual or recyclable to Veolia. We have raised this anomaly with Veolia on a number of occasions, but they are not willing to change their position on this."¹⁰

Derby (2016)

Letsrecycle reported in April 2016 that:

"In 2014/15, Derby recorded the largest fall in recycling among collection authorities in England - dropping from 42% to 32% in the course of 12 months"¹¹

Local anti-incineration campaigners believe cuts in recycling services (and the introduction of charges for some remaining services) which so drastically harmed recycling in Derby could be attributed to the incinerator contract.

In addition to the standard financial calculations which can push recyclable / compostable material to incineration, Schedule 17 ('Waste Reception Protocol') of the Derby waste contract includes specific provisions in relation to the composition of waste which could encourage the incineration of recyclable / compostable material to meet the specification. Table 17.1 states:

"Minimum Organic Content: 21%. Maximum Moisture Content: 60%. Minimum Net Calorific Value: See Table 17.2. Maximum Net Calorific Value: 18 MJ/kg".¹²

⁹ <https://www.theguardian.com/environment/2019/jan/08/caroline-lucas-calls-for-action-in-brighton-recycling-row>

¹⁰ <https://www.gov.uk/government/publications/local-authority-letters-on-recycling-rates>

¹¹ <https://www.letsrecycle.com/news/latest-news/derby-defends-decision-to-remove-recycling-points/>

¹² <http://www.derby.gov.uk/media/opendata/governance/q2-001.17-schedule-17-waste-reception-protocol.pdf>

Stoke-on-Trent City Council (2010)

Stoke City Council as faced the prospect of a £645,000 fine resulting from a failure to meet minimum contracted waste tonnage levels at their local incinerator.

It was reported by Letsrecycle in October 2010 that:

"...Stoke-on-Trent city council could be forced to pay its energy-from-waste contractor hundreds of thousands of pounds after failing to deliver the minimum contracted tonnage for the facility in 2009/10... The issue was acknowledged in minutes from a transformation and services overview scrutiny committee meeting..."

"The minutes state: 'Additional ongoing costs in respect of backdated claims from the Waste to Energy Plant made late in 2009/10 (£60,000) were also an unexpected pressure. A claim was received in June in respect of the city council failing to achieve minimum tonnage levels in 2009/10 for £645,000.' The minutes indicate that the actual cost of the claim is likely to be around £329,000, once a rebate of £316,000 is taking into account."¹³

Shropshire

As set out in UKWIN's response to Defra's Call for Evidence to inform the UK Government's Review of Waste Policies in October 2010:

"Schedule 7a of the Shropshire waste PFI contract contains details showing the annual utility payment for the incinerator before the effect of adding inflation. It shows a £10.8 million fixed charge each year. It also shows the rebate for landfilling or burning less waste which is £63.10 per tonne before the incinerator is operational and £12 per tonne saving should the incinerator become operational. Unused incinerator capacity is in effect charged at £108 per tonne while used capacity costs £120 per tonne.

The payment mechanism shows that Shropshire will receive a royalty payment of 80% of the third party income that Veolia generates from selling spare capacity. For example if the plant had 10,000 tonnes of spare capacity, of which 80% was used for third party waste, then the royalty would appear to be £512,000.

That capacity would have cost the council taxpayer £1.2 million (1/9th of the utility charge). It can therefore be concluded that the PFI incinerator contract is based on a massive fixed charge and a very low marginal charge. For Shropshire the fixed cost is 10 times the marginal cost for capacity that is not used, meaning every extra tonne recycled may only save the council £12 as the council has to pay £108 for the unused incinerator capacity in any case"¹⁴

¹³ <https://www.letsrecycle.com/news/latest-news/stoke-faces-bill-for-sending-less-waste-to-efw/>

¹⁴ http://www.ukwin.org.uk/files/pdf/UKWIN_DEFRA_Submission_4_October_2010.pdf

Kent County Council (2008)

Regarding the Allington incinerator contract, the Kent Messenger reported that:

"...what was initially seen as a cash-saving opportunity has quickly turned into a money pit, as the council is forced to send increasingly valuable recyclable material to the incinerator in order to meet its annual quota".¹⁵

East London Waste Authority (2017)

The London Borough of Newham's letter to Dr Therese Coffey MP in response to her request for an explanation of their low recycling rate:

"...we are tied into an expensive and inflexible waste disposal PFI contract until 2027 that limits our ability to improve recycling performance. Agreed in 2002 by the East London Waste Authority (ELWA), this arrangement was encouraged and incentivised by central government when PFI credits represented the main source of funding available for such projects. In line with government policy goals at the time, it was designed with the primary aim of diverting waste from landfill rather than increasing recycling."

"...the contract presents a major obstacle when it comes to recycling performance due to restrictions on what materials can be collected separately, the overall cost of the waste levy, and the lack of any financial incentives for the council to invest in achieving higher recycling rates."

"Newham is tied to ELWA by statute, and must deliver all its waste to that authority. Having been encouraged to adopt this approach by central government, we are now caught in an expensive PFI contract where we lack the choice, flexibility, and savings opportunities through recycling solutions that many other authorities are able to exercise."

"The ELWA PFI contract with Renewi is a major obstacle, both in terms of technical restrictions put on what materials can be collected separately, but also on the costs of disposing of waste and the lack of financial incentives for achieving higher recycling rates. At present Newham is only permitted to collect a restricted range of materials for recycling, comprising paper, cardboard, tins, cans and plastic bottles. All other materials must go into the general refuse, and although some materials are subsequently recovered for recycling, the yields and quality do not match what other local authorities can achieve."

"The structure of the PFI contract essentially means that Renewi retains any financial benefits from recycling, rather than there being a notably reduced gate fee or any revenue-sharing for the boroughs."

"As such, the ELWA levy continues to be structured as per the basic model set out in The Joint Waste Disposal Authorities (Levies) (England) Regulations 2006, with no variation in prices for waste disposal according to the material being delivered. In short, Newham pays the same amount to dispose of a tonne of waste whether it is refuse or recycling, and as such the financial incentive to recycle that has driven most other local authorities to invest in collection services and achieve higher performance simply does not exist for us."¹⁶

¹⁵ <https://www.kentonline.co.uk/kent/news/kents-waste-contract-could-be-m-a42292/>

¹⁶ <https://www.gov.uk/government/publications/local-authority-letters-on-recycling-rates>

Hampshire (2017)

Portsmouth's letter to Dr Therese Coffey MP in response to her request for an explanation of their low recycling rate

"There are challenges in adding materials into the recycling stream - Portsmouth is part of a Hampshire wide disposal contract... Hampshire wide contract [is an obstacle outside of our control that affects the recycling rate] - long term contracts (waste disposal contract ends 2030) requiring massive investment at the outset - difficult to make changes as markets and technology change"¹⁷

According to Southampton's Letter:

"What can be recycled is currently constrained by disposal infrastructure and any changes to this would require significant financial investment"

"The waste disposal authorities in Hampshire, including Southampton have a long term integrated waste disposal contract which currently handles the disposal of residual waste and the processing of collected recyclables. The contract length and cost of investment in infrastructure is such that it can be difficult to pursue some opportunities as markets and technologies change."

"Split responsibilities for waste management over two tiers of local government doesn't always allow for a full 'Whole System Cost' approach."

Similar comments to those made by Southampton have been made by Basingstoke, Gosport and New Forest Councils in their respective response letters.¹⁸

¹⁷ <https://www.gov.uk/government/publications/local-authority-letters-on-recycling-rates>

¹⁸ <https://www.gov.uk/government/publications/local-authority-letters-on-recycling-rates>