

OF BARNET, CAMDEN, ENFIELD, HACKNEY, HARINGEY, ISLINGTON & WALTHAM FOREST, TOGETHER WITH EXTINCTION REBELLION LONDON

WE ARE AT A TURNING POINT. THE FUTURE IS NET ZERO; IT CANNOT BE INCINERATION. —DR ALAN WHITEHEAD, SHADOW MINISTER FOR ENERGY AND CLIMATE CHANGE!

A MORATORIUM SHOULD BE PLACED ON THE BUILDING OF NEW INCINERATORS. THAT MORATORIUM SHOULD BE EXTENDED TO THOSE THAT HAVE BEEN GRANTED PLANNING PERMISSION BUT NOT YET BUILT [...] BECAUSE THEY ARE A BARRIER TO REDUCING EMISSIONS AND ACHIEVING A CIRCULAR ECONOMY. —JANE HUNT, CONSERVATIVE MP FOR LOUGHBOROUGH²

WE NEED TO PUT ALL OUR EFFORTS INTO NET ZERO SOLUTIONS. [...] AN INCINERATION TAX WOULD ENSURE THAT WE DO NOT JUST DIVERT ALL OUR WASTE TO INCINERATORS. —WERA HOBHOUSE, LIBERAL DEMOCRAT MP FOR BATH³

London, 11 March 2020

Dear Councillor,

We are writing to ask for your help. As you know, the seven constituent councils of the North London Waste Authority (NLWA) remain committed to a plan to rebuild and expand the Edmonton incinerator, known as the **NORTH LONDON HEAT AND POWER PROJECT (NLHPP)**, despite growing public and political opposition to waste incineration and changing circumstances in relation to the business and environmental case for the project.⁴

With the aim of persuading you to reassess that commitment and to free North London to pursue more sustainable and climate-friendly waste management and power-generation options, we request your careful, impartial consideration of this letter, which identifies environmental, financial, and governance **problems** associated with the NLHPP and proposes **alternatives** to the planned incinerator.

Construction on the new incinerator—the main part of the NLHPP—is due to begin at the end of 2022. The construction contract has not been tendered and the current incinerator is operational until at least 2027.⁵ That means there is time to rethink the plan, although site preparation works have already begun, and preliminary meetings with interested suppliers for the construction of the incinerator have already taken place. We hope you will take advantage of this narrow window of opportunity.

We have sent this letter to all councillors in the North London boroughs—Barnet, Camden, Enfield, Hackney, Haringey, Islington, and Waltham Forest. It comprises three main sections:

- 1. A SUMMARY OF THE MAIN POINTS OF CONCERN;
- 2. OUR ASKS OF YOU AND YOUR PEERS; AND
- 3. PROPOSED WAYS FORWARD.

1. THE MAIN POINTS OF CONCERN

At a time when the national government and local authorities are seeking to reduce their greenhouse gas emissions in line with agreed carbon budgets and the Climate Change Act 2008 amendment that stipulates net zero emissions by 2050,⁶ the NLHPP would:

- represent an **ENVIRONMENTAL LIABILITY** that, if used to its full capacity, would:
 - emit roughly 700,000 tonnes of CO₂ per year (around half of which would derive from fossil fuel sources)⁷—which is equal to 10% of North London's total emissions and tantamount to adding 360,000 cars to the seven boroughs' roads from 2025 to 2050 or longer;⁸
 - o **burn fossil fuels**—in the form of plastic—at a rate of more than 150,000 tonnes per year;⁹
 - produce power and heat in a process that is hugely carbon-intensive¹⁰—even more so than burning natural gas;
 - create demand for more rubbish since its planned capacity already exceeds North London's current residual waste production by at least 120,000 tonnes,¹¹ thus exposing residents to risks associated with overcapacity, such as carbon-intensive waste shipping from outside the seven boroughs;¹²
 - ossify the waste disposal process, preventing North London from moving up the waste hierarchy and from treating our waste—more than half of which is being incinerated even though it could be recycled or composted¹³—as a resource to be fed back into the circular economy;¹⁴
- impose significant **FINANCIAL RISKS** in that it would:
 - place a large burden of debt on the NLWA's seven councils for several decades as they fund the investment of £1.2 billion¹⁵—a figure that is close to double the estimated cost provided at the time the planning permission was granted;¹⁶
 - carry a high risk of becoming a loss-making asset as the UK moves up the waste hierarchy and residual waste streams dwindle, incineration needs plummet, and recycling rates increase—a problem that requires large amounts of waste to be shipped from outside the seven boroughs to the incinerator at higher cost, or the incinerator to operate at far below capacity, which would result in inefficiencies and contractual liabilities for electricity and heat delivery;
 - carry a medium risk of becoming an entirely stranded asset, if and when legislation tightens limits on emissions, possibly through a requirement to retrofit incinerators with prohibitively expensive carbon capture technology,¹⁷ an incineration tax,¹⁸ or a tax on fossil-derived CO₂ emissions from incineration, which would leave councils to pay off debts for a useless, decommissioned facility; and
- go against GOOD GOVERNANCE practices in that the project was approved:
 - without adequate transparency regarding the incinerator's expected climate impact;¹⁹
 - o despite a failure to adequately take alternatives into account;
 - based on a scope that no longer applies, as the project expanded to include non-household waste after the NLWA conducted a limited public consultation in 2014–15, and as the NLWA has since revealed its intention to import waste from outside the seven boroughs;²⁰
 - **under circumstances that no longer apply**, as evidenced by recent climate and ecological emergency declarations and legally binding commitments to reach net zero in the foreseeable future, as well as an increase in public concerns about air quality.²¹

2. WHAT WE ARE ASKING FOR

In view of the issues outlined in Section 1, Extinction Rebellion of the Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington, and Waltham Forest, together with Extinction Rebellion London, respectfully call on all seven NLWA councils to:

- I. IMMEDIATELY PAUSE ALL WORK RELATED TO THE NLHPP, including all tendering, procurement, and financial transactions that move the project forward, and to issue a PUBLIC ANNOUNCEMENT TO THIS EFFECT NO LATER THAN 20 MAY 2020; and
- **II.** conduct an **INDEPENDENT, INCLUSIVE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT** to evaluate the costs and benefits of the NLHPP and alternative waste management options to incineration and landfill, in a way that takes into account, at a minimum:
 - local councils' climate and ecological emergency declarations and commitments to reach net zero by 2030 or 2040 in some boroughs;
 - the Mayor's London Environment Strategy, which aims for a 65% recycling target by 2030;²²
 - the UK's 2050 net zero emissions legislation and 2018 resources and waste strategy;²³
 - the European Union's exclusion of waste-to-energy incineration from a list of economic activities considered 'sustainable finance' and the European Committee of the Regions' recommendation of a moratorium on new waste-to-energy facilities;²⁴
 - the London Mayor's C40 Cities 2030 targets for municipal solid waste (compared to 2015): reducing per capita rates by at least 15%, cutting landfill and incineration rates by 50%, and increasing recycling, composting, and reuse rate to 70%;²⁵
 - the best available technologies and integrated waste management systems for reuse, recovery, and recycling, as well as for mechanical, chemical, and organic treatment, based on international best practice, as applied in other C40 Cities;²⁶
 - ongoing national and corporate initiatives that aim to reduce waste arisings and increase recyclability, including the UK's deposit return scheme for bottles and cans;²⁷ the ban on single-use plastic items;²⁸ the plastic packaging tax;²⁹ and the UK Plastics Pact, which aims to make all plastic packaging 100% recyclable, reusable, or compostable by 2025;³⁰
 - the costs and benefits of using genuinely renewable zero-carbon energy rather than an energy-from-waste recovery process to generate electricity and/or heat.

We look to you to help galvanise support for these critical steps, which will enable North London boroughs to move towards a low-carbon, zero-waste, circular economy.

3. THE PATH TOWARDS NET ZERO

We call on the councils to develop alternatives to landfill and incineration to move North London towards net zero, specifically by redoubling efforts to **cut waste arisings and boost recycling**; using **lower-carbon alternatives** to incineration to manage a smaller amount of remaining ('residual') waste; and investing in **renewables and zero-carbon trucks** to secure a near-zero-carbon waste management system.

GOAL I: REDUCE WASTE ARISINGS AND SHARPLY INCREASE RECYCLING. Currently, well over 50% of the waste that is being incinerated could instead be recycled or composted.³¹ The councils could significantly reduce this proportion by increasing North London's local authority-collected waste recycling rate from

30% to 50% by 2025 and to 70% by 2030, in line with the London Environmental Strategy, London's C40 commitment, and the UK national municipal waste recycling targets,³² for instance by:

- enhancing the separation and collection of waste at the household and business ('source') level, with a focus on increasing the proportion of **organic food and garden waste** that is collected separately—which is currently very low,³³ despite recent efforts in some boroughs—in relation to the proportion that is incinerated or landfilled;
- investing in a new **anaerobic digestion facility** to transform more effectively collected organic waste into biogas and compost, and/or by contracting existing anaerobic digestion facilities in the region;
- improving **public awareness** of waste management collection and separation approaches and related social benefits, as has been successfully accomplished through 'flats recycling' schemes,³⁴ public education campaigns on materials separation, and the promotion and support of existing reuse networks such as Freegle and Freecycle;
- introducing instruments to **incentivise separation**—such as rubbish bag levies, a 'save-as-you-sort' scheme that rewards recycling, or a 'pay-as-you-throw' system with charges per bag of residual waste and free recycling (instead of the fixed current council tax payment)³⁵—and by lobbying for legal or regulatory changes to allow for such schemes wherever needed;
- investing in reuse and recycling infrastructure for sorted and collected items, such as:
 - an additional materials recovery and recycling facility³⁶ to separate and process items such as metals, plastics, paper, and card into high-value streams for recycling;
 - \circ more reuse centres, which could be established in collaboration with the Reuse Network;³⁷
 - o a reuse, refill, repair, and reconditioning space for small businesses;
- working with businesses throughout North London **to minimise single-use plastics and hard-torecycle plastics** by increasing the number of low- and no-plastic zones;³⁸ and
- collaborating with industry partners to evaluate investment in beyond state-of-the art mechanical and chemical recycling facilities that can turn high-value recovered material streams into new raw materials for UK industry, such as a chemical recycling facility to process plastics that are especially difficult to recycle³⁹ and a dedicated nappy recycling facility.⁴⁰

GOAL II: USE LOWER-CARBON ALTERNATIVES TO MANAGE RESIDUAL WASTE. Until we end residual waste arisings and have switched to full recycling of all waste—which the councils could help to achieve by increasing the recycling rate to 65% by 2030 and setting a target of 90% recycling or more by 2040— the following alternatives to incineration, buildable at smaller scale and at a far lower investment cost, could serve as interim solutions for managing residual waste in a way that produces fewer greenhouse gas emissions and pollutants:

- Mechanical and biological treatment (MBT) is a proven and widely used combination of processes with three main outputs: recyclables, soil, and a bio-stabilised, refuse-derived fuel that can be landfilled—without the associated release of significant quantities of methane—or used to help power existing incinerators.⁴¹ MBT is critical to achieving the London Environmental Strategies 2026 target of no longer sending any biodegradable or recyclable waste to landfill.⁴² The construction of an MBT facility with a capacity of 120,000 tonnes per year would cost about £42 million.⁴³
- Distributed modular gasification (DMG) is a novel technology for the clean conversion of unrecyclable plastics into either 100% electricity or a mix of hydrogen and electricity. Testing has shown that DMG can use refuse-derived fuel generated by MBT.⁴⁴ The UK's PowerHouse Energy Group is a world leader in DMG technology and is deploying its first commercial-scale plant in Cheshire for operation in 2021 at a capacity of 12,000 tonnes and an investment cost of £7 million.⁴⁵

GOAL III: INVEST IN RENEWABLES AND ZERO-CARBON TRUCKS. The development of a zero-carbon waste management system could involve **investment in renewables**—rather than an incinerator—to generate electricity and heat,⁴⁶ as well as **upcycling of waste collection diesel trucks into electric vehicles** for the transport of waste and recyclable materials.⁴⁷

IN CLOSING

While we appreciate that local authorities are on a tight budget due to national government policy, we have no doubt that councils can **COMBINE FISCAL RESPONSIBILITY WITH SUSTAINABILITY** when dealing with North London's waste. We hope you will agree that the first step in doing so is to pause and review the NLWA's plans to spend £1.2 billion on facilities that will lock North London into high waste generation and high greenhouse gas emissions for decades, and possibly beyond 2075.⁴⁸

In light of the councils' own climate and ecological emergency declarations and net zero targets, the overarching goals of the Paris Agreement, and the amendment to the Climate Change Act 2008 mandating net zero by 2050, we are confident that a fair, inclusive, and independent review of the proposed incinerator will lead councils to conclude that the NLHPP project is no longer viable due to these exceptional circumstances and, consequently, to abandon the NLHPP in favour of a renewed focus on efforts to **REDUCE WASTE, RECYCLE MORE OF THE WASTE THAT IS GENERATED, AND MANAGE THE SMALLER QUANTITY OF RESIDUAL WASTE IN A MORE RESPONSIBLE MANNER**, in line with the London Environment Strategy.

We thank you for your time and look forward to hearing from you.

Sincerely,

Extinction Rebellion of the Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington, and Waltham Forest, together with Extinction Rebellion London

NOTES

We gratefully acknowledge the support of UKWIN (United Kingdom Without Incineration Network) and the Stop the Edmonton Incinerator Now project. More sources and details are available upon request.

¹ Dr Alan Whitehead, Labour MP for Southampton, Test, Westminster Hall debate on waste incineration facilities, 11 February 2020. See the webcast and the transcript.

² Jane Hunt, Conservative MP for Loughborough, Westminster Hall debate on waste incineration facilities, 11 February 2020. See the webcast and the transcript.

³ Wera Hobhouse, Liberal Democrat MP for Bath, Westminster Hall debate on waste incineration facilities, 11 February 2020. See the webcast and the transcript.

⁴ Experts and policy-makers are lining up against incineration. In 2018, DEFRA's then chief scientific advisor spoke out against it in testimony before Parliament: '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 [...] we are taking these materials, we are putting them in incinerators, we are losing them forever and we are creating carbon dioxide out of them.'

In 2019, Mayor Sadiq Khan called for an end to the construction of new incinerators in London. Conservative MP for Chingford and Woodford Green <u>Iain Duncan Smith</u> opposes the NLHPP.

Kate Osamor, MP for Edmonton, has called for an 'immediate pause and review' of the NLHPP. She has pointed out that environmental and public health policy are to be 'based on the precautionary principle that, where reasonable doubt exists over the safety of an initiative, it is paused or blocked until rigorous, independent evidence can be heard to inform a proper decision.'

Numerous other MPs have expressed opposition to incineration, most recently on 11 February 2020, at the Westminster Hall debate on waste incineration facilities. See the webcast and the transcript.

⁵ The decommissioning timeline is addressed in para. 22 on p. 8 of Greater London Authority planning report D&P/3509/04 of 22 March 2016: 'There will be a facilities overlap period of 6–12 months from the decommissioning of the existing energy from waste (EFW) facility and the 2027 new operations.' ⁶ See the Climate Change Act 2008 (2050 Target Amendment) Order 2019.

⁷ As discussed in note 19, below, 'the NLWA has yet to provide an estimate of the NLHPP's annual CO_2 emissions. Based on guidance provided by the UK Environment Agency, the answer is roughly 700,000 tonnes per year if the facility is used to its full capacity (as between 0.7 and 1.7 tonnes of CO_2 is released per tonne of municipal waste combusted).'

⁸ A car emits an average of 1.95 tonnes of CO_2e (carbon dioxide equivalent) emissions per year, and the total emissions of the seven North London boroughs in 2017 equalled 6.1 million tonnes. The London Energy and Greenhouse Gas Inventory reports the CO₂e emissions per borough: Barnet emits 1.25 million tonnes, Camden 1.10 million tonnes, Enfield 1.07 million tonnes, Hackney 648,000 tonnes, Haringey 658,000 tonnes, Islington 706,000 tonnes, and Waltham Forest 648,000 tonnes.

⁹ This Stop the Edmonton Incinerator Now estimate is based on an average of disclosed information on the composition of incinerators for the Edmonton incinerator and the Cory Riverside incinerator in South London. ¹⁰ For more information on carbon intensity, see this UKWIN report (pp. 10–14) and this Zero Waste Europe policy briefing. Note that Sandy Martin, Labour's former Shadow Waste and Recycling Minister, called energy from waste a 'form of deception'.

¹¹ When planning the incinerator rebuild in the early 2010s, the NLWA appraised the NLHPP based on projections that total waste levels would increase, but they have in fact decreased. Since 2011-12, total residual waste in North London has fallen by 7%-and that drop happened without major reforms and with recycling and composting rates flatlining. All together, the seven boroughs now collect 580,000 tonnes of 'residual waste' per year; nevertheless, the NLWA plans to build an incinerator with a 700,000-tonne capacity. See the NLWA's projections on p. 125 (in Appendix B) of this report.

¹² Tacitly acknowledging the overcapacity problem, one councillor on the NLWA board floated the idea that extra incinerator capacity could be sold to other councils: 'Our aim is to free up as much capacity as possible so that other London boroughs don't not [*sic*] have to use landfill or ship their waste elsewhere' (Twitter, 25 January 2020, since deleted, but we have a screenshot). During the limited public consultation, the NLWA did not inform residents that the facility would burn waste from outside of North London.

¹³ Most of the items that are currently sent to the existing Edmonton incinerator could be recycled, composted, or retained in use. See Section 3 and note 31, below, for details.

¹⁴ For information on the correlation between incineration and low recycling rates, see p. 9 of this <u>report</u> and this <u>evidence</u>. For examples of local councils explaining that incineration contracts prevent them from recycling more, see pp. 10–15 of this <u>consultation response</u>.

¹⁵ The <u>NLHPP</u> encompasses the new incinerator, site preparation work, a resource recovery centre, and a visitor centre. The resource recovery centre accounts for only £100 million of the £1.2 billion budget.

¹⁶ It is unclear whether the financial case for the NHLPP still stands given that the <u>costs ballooned</u> after permission for the project was granted.

¹⁷ The Climate Change Commission (CCC) reports that 'there are not sufficient UK policy incentives to make it economically viable to install CCS [carbon capture and storage] at present. This may change during the 2020s, as Government policy develops. [...] That is why the CCC have previously mentioned that new power generation facilities ought to be considering being "capture ready" during their engineering design phase, so that there is physical space and infrastructure onsite to add carbon capture at a later date, once the policy framework is clear.' Correspondence from the CCC, 12 February 2020, available upon request.

¹⁸ Cross-party support for an incineration tax is growing; Liberal Democrat MP Wera Hobhouse (Bath), Labour MP Sharon Hodgson (Washington and Sunderland West), and Conservative Caroline Nokes (Romsey and Southampton North) are among those who have called for such a tax. The Parliamentary Under-Secretary of State for Environment, Food and Rural Affairs (Rebecca Pow) noted that if government policies fail to deliver waste ambitions, 'the Government outlined in the 2018 Budget that we will consider introducing a tax on the incineration of waste, operating in conjunction with the landfill tax'. See the Westminster Hall debate on waste incineration facilities of 11 February 2020 (webcast and transcript).

¹⁹ In 2019, the NLWA commissioned a '<u>carbon impact screening</u>' from Ramboll, an engineering and management consultancy. The NLWA cited the assessment in a <u>press release</u> that justifies the NLHPP as 'crucial to tackling the Climate Emergency declared by the six of north London's boroughs which make up the NLWA'. Figures drawn from the assessment are featured in communications about the NLHPP, including tweets and presentations by NLWA board members and staff.

Significantly, the NLWA exhibited a **lack of transparency** with respect to releasing the assessment, burying it behind an obscure slug on its website. It was only after a group of concerned local residents requested the assessment under an environmental information statute that Extinction Rebellion was able to find the online version.

A quick look at the assessment indicates why the NLWA was not eager to subject it to scrutiny. First, the screening was not independent. The NLWA already had a <u>thermal consulting contract</u> with Ramboll—a clear **conflict of interest that the NLWA did not declare**.

Second, the **scope of the screening is unduly narrow**, focusing exclusively on the merits of incineration vs. landfill, while failing to consider any of the options that are higher up on the waste hierarchy, such as anaerobic digestion, composting, recycling, reuse, and waste prevention.

Third, the Ramboll assessment is characterized by **egregious omissions**. Specifically, it does not point out that the NLWA projection that waste levels would increase is wholly inaccurate; that waste quantities actually decreased (see note 11, above); or that waste quantities can be expected to fall further, as councils and companies, along with the UK government, take stronger action. The assessment also fails to provide an estimate of the NHLPP's total annual CO_2 emissions, instead offering a 'carbon impact' figure based on flawed methodology (specifically, using the wrong emissions factor in the counterfactual of energy displaced). In fact, the NLWA has yet to provide an estimate of the NLHPP's annual CO_2 emissions. Based on guidance provided by the UK Environment Agency, the answer is roughly 700,000 tonnes per year if the facility is used to its full capacity (as between 0.7 and 1.7 tonnes of CO_2 is released per tonne of municipal waste combusted).

Fourth, the **timing of the study is questionable**, given that the NLWA commissioned Ramboll in May 2019, well after the new incinerator plans had been finalised and approved. The NLWA appears to have cited the report as a post-hoc justification of its plan, largely to influence public opinion, as noted above.

 20 See note 12, above, and the <u>consultation notices</u>.

²¹ The current Edmonton incinerator released more than 1 tonne of particulate matter (PM) 2.5 in 2018 and more than 2 tonnes of total particulates, according to figures released by the operator. Public Health England <u>data</u> show that Waltham Forest had the second-worst concentration of PM 2.5 in England in 2018. DEFRA reports that there is 'increasing evidence' that particulate matter <u>leads to respiratory and cardiovascular problems</u>, which can be fatal. Research published in the *Lancet* this year points out that '<u>no threshold level of PM2.5 is advised as safe for the general population'</u>.

²² See the <u>Mayor's London Environment Strategy</u>.

²³ See the UK government's 2018 resources and waste strategy.

²⁴ As Zero Waste Europe reports: 'The EU has excluded waste-to-energy incineration from a list of economic activities considered "sustainable finance", those that can make a substantial contribution to climate change mitigation and which do no significant harm to other environmental objectives such as transition to a circular economy, waste prevention and recycling.' As the official body representing European regional and local governments, the European Committee of the Regions has provided guidance on waste-to-energy in the circular economy, calling for a moratorium on new waste-to-energy facilities.

²⁵ See the <u>press release</u> of August 2018 and the <u>Advancing Towards Zero Waste Declaration</u>.

²⁶ See the C40 <u>Waste to Resources</u> and <u>Sustainable Waste Systems</u> initiatives.

²⁷ The <u>deposit return scheme</u> is scheduled to go into effect in England by 2023.

²⁸ A UK <u>ban</u> on plastic straws, stirrers, and plastic-stemmed cotton buds will go into effect in April 2020.
²⁹ In addition to the <u>plastic packaging tax</u>, which will be applied to plastic packaging that contains less than 30% recycled content as of April 2022, the government may introduce a <u>textiles tax</u>, as proposed by the Environmental Audit Committee. The resulting revenue streams would facilitate further investment in recycling infrastructure.
³⁰ The <u>2025 UK Plastics Pact</u> calls for 100% of packaging to be reusable, recyclable, or compostable, as agreed by major food producers and all major UK supermarkets and fast-food chains. In total, '76 businesses, representing the whole of the value chain, including those <u>collectively responsible for 85% of plastic packaging</u> sold through supermarkets, are signed up to achieve the four UK Plastics Pact targets by 2025'.

³¹ Data indicate that well over half of the items that are sent to the existing Edmonton incinerator could be recycled or composted. An official <u>waste composition analysis</u> for Barnet, for example, shows that 55–57% of the borough's residual waste was recyclable in 2015. Since this analysis uses a narrow definition of 'recyclable', the percentage that need not have been incinerated is actually even higher. In Waltham Forest, residents recently received a council leaflet stating that 85% of the content of household black bins is recyclable, yet the borough actually recycles only 31.5%. It follows that the amount of residual waste that goes to the incinerator could be significantly reduced if waste separation were enhanced. (Leaflet image available on request.)

³² In 2018 the UK government published its <u>resources and waste strategy</u>, which sets out municipal waste recycling targets of 55% in 2025, 60% in 2030, and 65% in 2035, following the European Union's Circular Economy Package targets. See also this House of Commons <u>briefing paper</u> on the UK Environment Bill and transposing the updated EU waste directive 2018/852 into UK law. The <u>Mayor's London Environment Strategy</u> goes further by setting a 65% recycling target for London by 2030.

³³ Six of the seven councils collect organic material such as food waste, which is currently composted by Envar and Tamara Organics in Surrey via contracting with LondonEnergy by the NLWA. Available data indicate that the scale of the programmes could be significantly increased. The seven boroughs produced 582,779 tonnes of residual waste in 2018–19. Composition analysis shows that 37% of North London's residual waste is organic material, meaning that about 215,600 tonnes of organic material that could have been composted was incinerated instead. Meanwhile, only 46,067 tonnes of organic materials were separated at source and collected for composting in 2018– 19, indicating that **only 17.6% of organic materials in North London are in fact being composted**. See the raw data in this <u>NLWA statement of accounts for 2018–19</u>. ³⁴ The Greater London Authority's '<u>flats recycling package</u>' led the recycling rate in purpose-built flats to increase by 26%.

³⁵ Variable pay-as-you-throw rates have led to 10% and higher increases in recycling rates in the <u>UK on the Isle of</u> <u>Guernsey</u>, where it caused <u>household residual waste to drop by 50% and the recycling rate to surge in a single year</u>, and in many cities in <u>the Benelux countries</u>, <u>Germany</u>, and <u>Italy</u>, among others. <u>DEFRA evaluations</u> show that payas-you-throw schemes resulted in 10% to 30% reductions in residual waste generation across multiple countries. The <u>Local Authority Recycling Advisory Committee (LARAC)</u> has called for research into how a 'discretionary direct charging system' might be implemented in the UK.

³⁶ The new materials recovery and recycling facility needs to be larger than the planned NLHPP resource recovery facility, which is designed to have a capacity of only 135,000 tonnes. At present, North London boroughs use a Biffa recycling facility in the Edmonton area with a capacity of 250,000 tonnes. Once North London's waste system is improved, this Biffa capacity will not be nearly enough, even if supplemented by the NLHPP resource recovery facility.

³⁷ The <u>Reuse Network</u> helps 150 reuse charities across the UK to make household items easily donatable and reusable.

³⁸ In 2020 the NLWA launched its <u>first low-plastic zone in Cowcross Street, Islington</u>, where businesses have jointly committed to reducing and eliminating plastics provided to customers.

³⁹ A chemical recycling plant—such as the one <u>ReNew ELP is building in Teesside</u>—could be established in collaboration with the Greater London Authority.

⁴⁰ The University of Brighton and MediSort have been i<u>nvestigating options for the commercial recycling of</u> <u>absorbent hygiene products</u>, such as nappies. Results of the research will <u>become available</u> in March 2020.

⁴¹ From an environmental perspective, MBT is a better option than incineration. For details, see this <u>report</u>, which finds that: 'After maximizing their source-separated recycling and composting efforts, communities looking to minimize the environmental impacts of their remaining waste should pursue an MRBT-to-landfill system because it recovers the greatest amount of additional recyclables, stabilizes the organic fraction of the residuals, reduces the amount of material to be disposed of in a landfill, and minimizes the negative environmental and public health impacts of landfilling leftovers compared to the available alternative technologies. This study shows that it is reasonable to conclude that the MRBT option is not only the best environmental practice for disposing of residuals, but it is also the best community strategic option as well. MRBT is not a replacement or substitution for sourceseparated recycling and composting, but it is a valuable tool for helping communities reduce the environmental impacts from the disposal of their leftovers on the way to Zero Waste.'

The NLWA opted against MBT, apparently arguing that a single MBT facility would not have sufficient capacity to handle North London's residual waste. This is not the case: a single MBT plant would be ideal for North London. The <u>MBT facility in Essex</u> processes more than 415,000 tonnes per year, and North London could reduce its residual waste figures to that level by the mid- to late 2020s—meaning that a similar-sized facility could serve North London's needs. The plant could be built at Edmonton or one of the other NLWA sites.

The logic is simple. In the year ending 31 March 2019, the seven boroughs created 582,779 tonnes of residual waste, of which 511,577 tonnes were incinerated (see the <u>NLWA statement of accounts</u> and <u>annual monitoring</u> report). Reducing either of those figures to roughly 415,000 tonnes in the next few years is entirely feasible. Proven tools are already available for reducing residual waste, as detailed at length in this letter. Even if the positive effects of North London's reforms were to lag by a few years, it would be better to temporarily use other, nearby residual waste facilities for our overflow than to lock North London into a system of incineration for decades.

⁴² London and Southeast England currently landfill an estimated 36% of their waste, a large proportion of which is organic waste, which is biodegradable. To reach the <u>Mayor's London Environment Strategy</u> target and ensure that no biodegradable or recyclable waste is sent to landfill by 2026, it is essential to remove organic waste from residual waste bags, which requires MBT.

 43 See, for example, the <u>MeyerSide MBT Plant</u> that was approved in 2007 and opened in 2012. Tolvik Consulting, which carried out a more detailed <u>costing evaluation of MBT in the UK</u>, estimates a gate fee of £95–125 per tonne and a capital cost of £42 million for a 120,000-tonne facility.

⁴⁴ A detailed evaluation of the status of this technology can be found in the <u>Edison Investment Research evaluation</u> of PowerHouse Energy Group DMG technology.

⁴⁵ The first plastic-to-hydrogen plants will <u>start operations in Cheshire in 2021</u> using the PowerHouse DMG. More technical information is available from <u>PowerHouse</u>. The innovative technology has <u>attracted interest from Japan's</u> <u>Toyota</u>. Hydrogen is widely used by UK industry and can be blended in low quantities in the natural gas grid, as demonstrated in the <u>UK HyDeploy project</u>.

⁴⁶ Note that current <u>statutory obligations</u> require the seven councils to collect material and transfer it to the NLWA to dispose of or reprocess on their behalf, yet no corresponding requirement exists with respect to power or heat generation.

⁴⁷ The councils of the City of London, Greenwich, and Westminster have successfully tested 26-tonne electric waste trucks that operate for at least 10 hours at a time. The trucks were <u>upcycled from older diesel trucks</u> and transformed into electric trucks. The City of London has <u>signed a contract with Veolia</u> for all waste collection trucks to be driven electrically. See also this <u>Eunomia report</u>, which finds that 'switching the UK's fleet of diesel powered refuse collection vehicles (RCVs) for electric trucks would have multiple benefits. These include reducing UK greenhouse gas (GHG) emissions by 290 kilotonnes of CO₂ each year—the equivalent of recycling almost 16 billion plastic bottles—eliminating associated exhaust fumes, and saving local authorities money in the long run.' ⁴⁸ The projection is based on the lifespan of the current incinerator, which has been operational since 1969.