
APPENDIX THREE

THE MAYOR'S MUNICIPAL WASTE TARGETS CONTRIBUTING TOWARDS NATIONAL WASTE TARGETS

This section sets how the Mayor's policies and proposals contribute towards achieving his preferred approach for managing London's municipal waste. By achieving the Mayor's targets set in his preferred approach, London will collectively meet or exceed London's waste authorities' Landfill Allowance Trading Scheme (LATS) allowances, and the government's national targets.

London needs a significant increase in municipal waste management infrastructure to achieve the Mayor's municipal waste targets. Policy 5 of the Mayor's municipal waste management strategy sets out the Mayor's proposals for increasing

this infrastructure. In addition to the Mayor's policies and proposals, the GLA has taken into consideration municipal waste infrastructure that has been granted planning permission, and municipal waste management infrastructure being procured by London's waste authorities. This infrastructure, set out in Table 1, has been factored into the modelling undertaken for implementing the Mayor's policies and proposals. The GLA will update its modelling with any new municipal waste infrastructure procured in implementing this strategy. The updated modelling will include, where appropriate, municipal waste capacity developed with the London Waste and Recycling Board.

Table 1: London's current and planned municipal waste management infrastructure

Technology	2011 capacity (tonnes per year)	Planned capacity (tonnes per year)	In procurement, waste authority-led (tonnes per year)
Material Reclamation Facilities (MRFs)	793,000	110,000	150,000
Pre - treatment	244,000	88,000	585,000
Composting/Anaerobic Digestion	70,000	0	112,000
Thermal treatment	1,367,000 ¹	200,000	532,000
TOTAL CAPACITY	2,474,000	398,000	1,389,000

¹ This total includes municipal waste to be treated at the Belvedere incinerator. The plant's planned capacity is approximately 585,000 tonnes per year. It is assumed that 440,000 tonnes of this capacity each year will be for London's municipal waste from 2011.

Notes: Figures for 'planned capacity' and 'In procurement' capacity are indicative only and subject to final contractual decisions to be made after 2011.

The Mayor's targets are for London to achieve as a whole, placing no requirement on individual waste authorities to achieve them. In some cases the Mayor's targets do not exactly match those set by government for the UK. The Mayor's targets are more ambitious than those set by the government and reflect regional circumstances, such as:

- the declining landfill capacity accepting London's municipal waste;
- the need to significantly improve municipal waste recycling or composting performance – London is the lowest performing region in the UK.
- the need to significantly increase the amount of waste managed within London to achieve greater self-sufficiency in line with Planning Policy Statement 10.

All the Mayor's policies and proposals contribute towards meeting his targets. The tables and

figures below set out the key policies and proposals that contribute towards achieving the Mayor's targets, London waste authorities' LATs requirements, and the targets set by government for the UK. Justification is given where the Mayor's targets do not directly correlate with those targets set by government.

In developing the Mayor's strategy the GLA has worked closely with officials in Defra's Waste Programme Team to ensure the strategy is consistent with the Government's overall approach for managing waste in England. In June 2011 Defra published a national waste policy review document. In preparing the Mayor's Municipal Waste Management Strategy, Defra was satisfied that the Mayor's overall approach for his strategy was consistent with the Government's ambitions in the review of national waste policies.

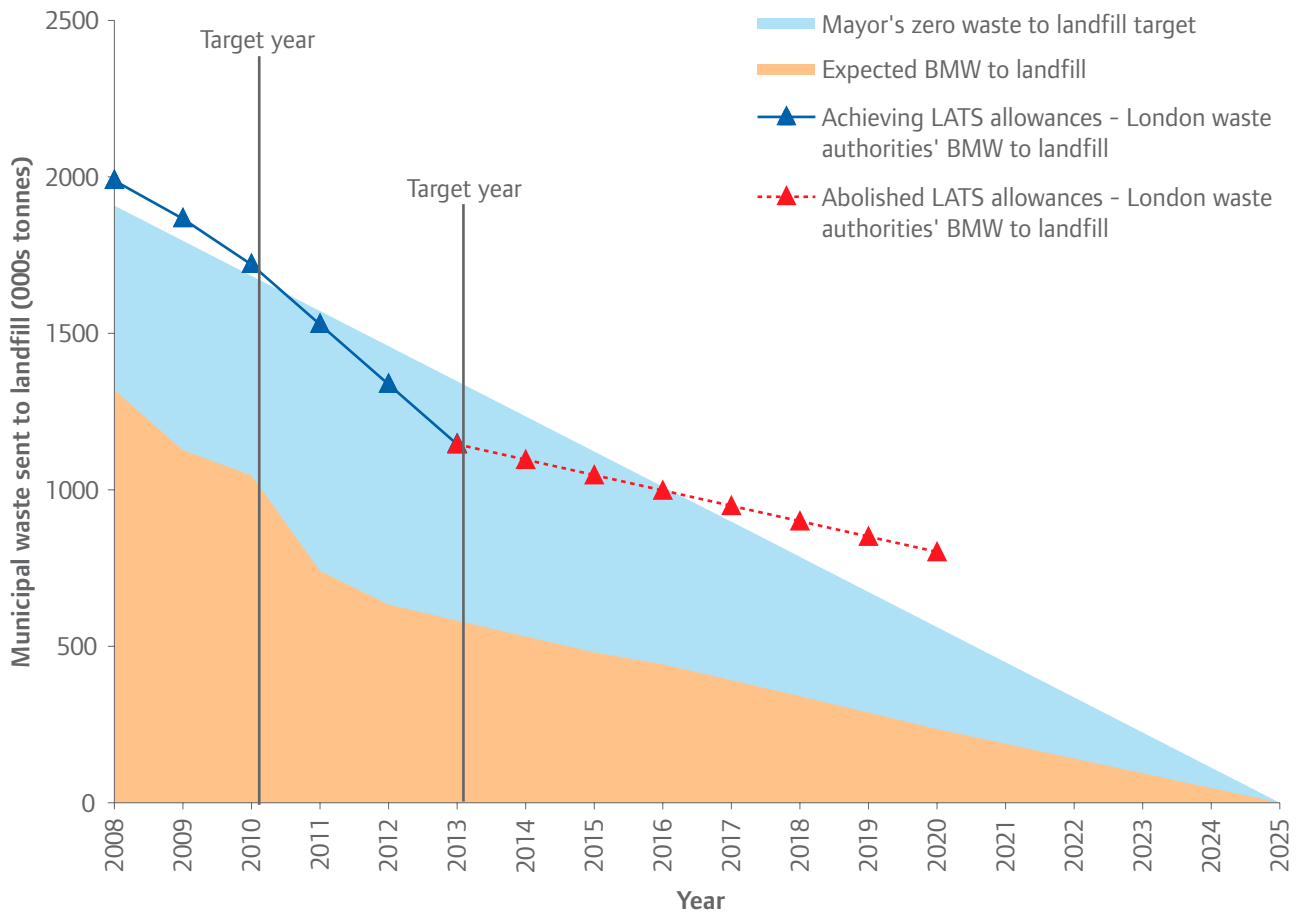
Mayor's target	Justification	National Policy requirement
Achieving zero municipal waste direct to landfill by 2025.	<ul style="list-style-type: none"> • The Mayor in his London Plan 2011 wants London to manage the bulk of its waste within London and work towards zero waste (all waste) to landfill by 2031. • Landfill sites accepting London's municipal waste (mostly outside London) are expected to close by 2025. • 2025 represents a realistic timeframe for new waste infrastructure to be built in London to divert waste from landfill. 	London waste authorities meeting their LATs allowances

Key policies and proposals delivering the Mayor's target	
POLICY 1: Inform producers and consumers of the value of reducing, reusing and recycling.	Proposals 1.1 Setting waste reduction and reuse targets 1.2 Supporting Londonwide engagement to promote the reduce, reuse and recycle message 1.3 Reducing the amount of municipal waste entering the waste stream
POLICY 2: Reducing the climate change impact of London's municipal waste management.	Proposals 2.1 The Mayor will work with waste authorities to put London on a path for its municipal waste management functions to collectively achieve the EPS 2.3 The Mayor has set a minimum CO ₂ eq performance for energy generation from London's municipal waste, known as a "carbon intensity floor". Waste authorities that are considering options for generating energy from waste will need to demonstrate how their preferred solutions will meet the carbon intensity floor, or demonstrate what steps are in place to meet it in the near future.
POLICY 3: Capturing the economic benefits of waste management	All Proposals
POLICY 4: Achieving high municipal waste recycling and composting rates resulting in the greatest environmental and financial benefits.	All Proposals
POLICY 5: Stimulating the development of new municipal waste management infrastructure in London, particularly low-carbon technologies	Proposals 5.1 The Mayor through LWARB will actively support the development of municipal waste management infrastructure in London, and in particular the use of low-carbon technologies 5.2 The Mayor will work with waste authorities to manage as much of London's municipal waste as practicable within London to achieve regional self-sufficiency targets as set out in the London Plan
POLICY 6: Achieving high levels of street cleanliness	Proposals 6.4 The Mayor will work with a range of partners including London boroughs and the private sector to provide on-street recycling opportunities and to recycle waste from London's events.

Figure 1 sets out the impact achieving zero municipal waste to landfill by 2025 has on achieving London waste authorities' LATS allowances for biodegradable municipal waste (BMW) sent to landfill by 2020. For the purposes of implementing the LATS, it is

assumed 68 per cent of waste sent to landfill is biodegradable. Applying this proportion, London's waste authorities are expected to collectively meet their LATS allowances by 2013, at which point the LATS scheme is to be abolished by the UK government.

Figure 1: Achieving zero municipal waste to landfill by 2025



Mayor's target	Justification	National Policy requirement
To reduce the amount of household waste produced in 2008/09 from 970kg per household to 790kg per household by 2031. This is equivalent to a 20 per cent reduction per household.	<ul style="list-style-type: none"> The Mayor believes greater economic and environmental benefits can be achieved by reducing waste at source as opposed to focusing on reducing waste not reused, recycled or composted. The Mayor's reduction target reflects decreasing annual levels of household produced waste since 2006/07. 	To reduce the amount of household waste not reused, recycled or composted (residual waste) in 2000 by 29 per cent in 2010 with an aspiration to achieve a 45 per cent reduction on 2000 levels by 2020.

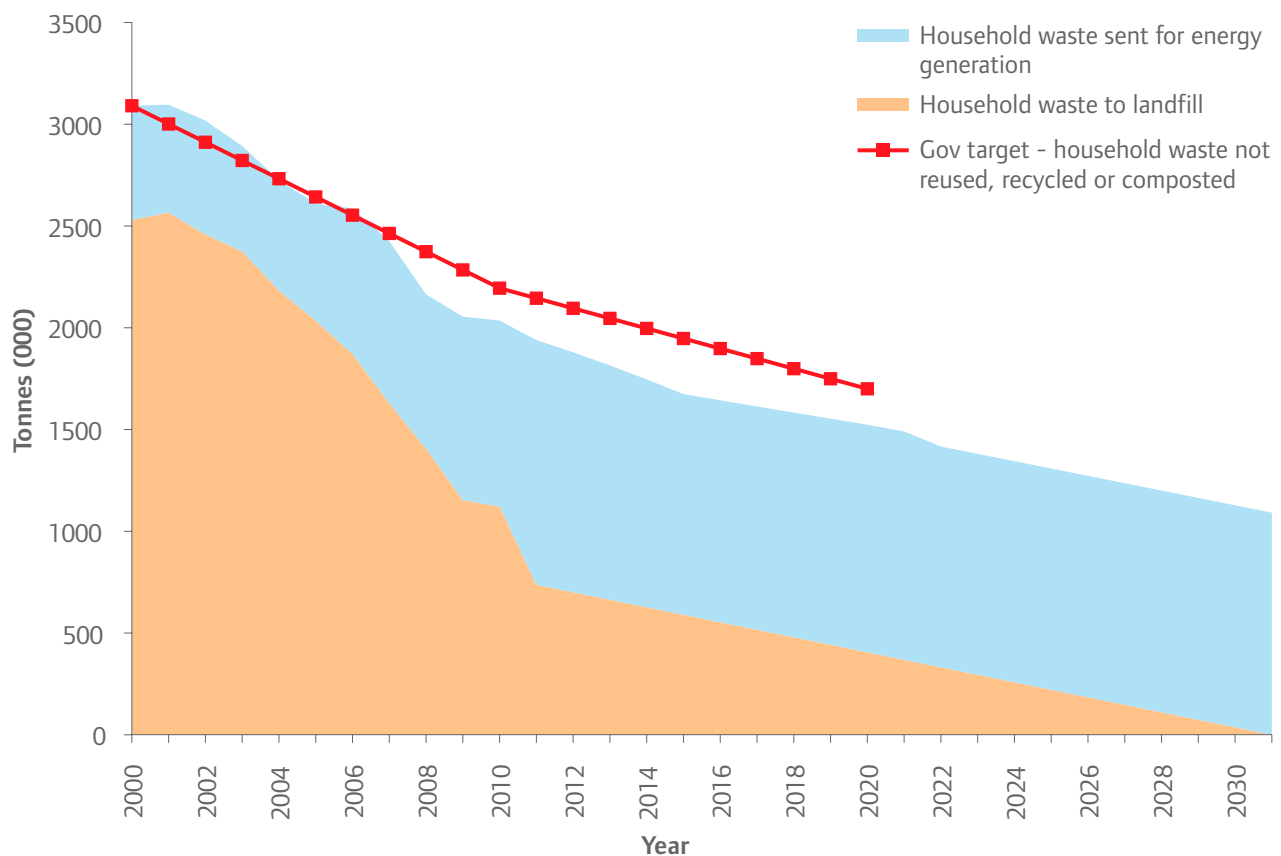
Key policies and proposals delivering the Mayor's target	
POLICY 1: Inform producers and consumers of the value of reducing, reusing and recycling.	All Proposals

The Mayor has set targets to reduce the amount of household waste produced by each London household by 2031. This differs from the government's targets which are to reduce the amount of UK household waste not reused, recycled or composted by 2020. Achieving the government's targets effectively means reducing the amount of UK household waste used for energy generation or sent to landfill.

generation or to landfill by 2031. The trajectory shows a declining amount of London's household waste expected to be managed this way, comfortably lower than what is required to meet the government's household waste reduction targets. In addition, the government's reduction targets will be achieved by London's waste authorities increasing their recycling and composting performance, resulting in less household waste going to landfill or energy generation.

Figure 2 shows how much household waste London is expected to send for energy

Figure 2: Achieving the Mayor's household waste reduction targets



Note: The sharp decline in energy generation levels from 2020 is a result of London's Edmonton incinerator closing in 2020 combined with an increase in reuse, recycling and composting performance.

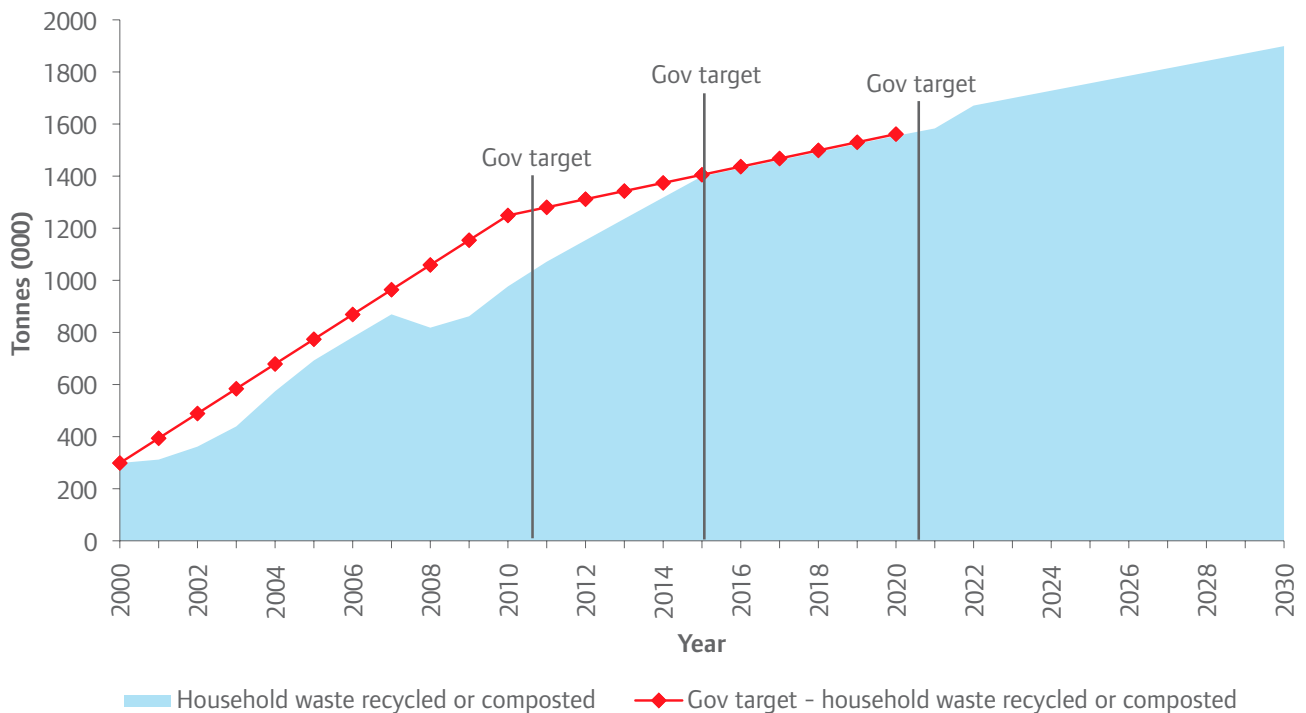
Mayor's target	Justification	National Policy requirement
<p>1. To increase the amount of London's waste that could be reused or repaired from approximately 6,000 tonnes each year in 2008 to 20,000 tonnes a year in 2020 and 30,000 tonnes a year in 2031.</p> <p>2. To recycle or compost at least 45 per cent of municipal waste by 2015, 50 per cent by 2020 and 60 per cent by 2031.</p> <p>3 The management of London's municipal waste to achieve annual greenhouse gas emissions savings of approximately.</p> <ul style="list-style-type: none"> • 550,000 tonnes of CO₂eq in 2015 • 770,000 tonnes of CO₂eq in 2020 • One million tonnes of CO₂eq in 2031 <p>4. To generate as much energy as possible from London's organic and non-recycled waste in a way that is no more polluting in carbon terms than the energy source it is replacing.</p>	<p>1. The Mayor's reuse target has been set following discussion with the London Community Resource Network as to what is reasonably achievable.</p> <p>2.The Mayor is required to produce a municipal waste management strategy, and has therefore set municipal waste recycling or composting targets. The targets match those set by the South London Waste Partnership and West London Waste Authority for their constituent boroughs. Together, they represent about one third of London's municipal waste authorities.</p> <p>3. The Mayor wants London's municipal waste to deliver the greatest possible environmental benefits by reducing its impact on climate change. Generally, achieving high rates of recycling and composting aligns with achieving the Mayor's Emissions Performance Standard (EPS). However, a key characteristic of the EPS is that it allows flexibility, so that waste authorities can look across the whole waste system to find the greatest CO₂eq savings, depending on their specific circumstances. This approach puts greater emphasis on, and provides incentives for, waste reduction which is the most cost-effective waste solution.</p> <p>4. This Mayor's energy generation target aligns the Mayor's waste management policy goals with those in his Climate Change Mitigation and Energy Strategy for delivering low carbon energy in London and providing incentives for low carbon energy generation technologies. In aligning the two strategies the Mayor has set a minimum CO₂ equivalent emissions performance for energy generated from municipal waste. The minimum CO₂eq emissions performance, also known as the "carbon intensity floor" has been set based on the latest DECC guidance for setting such performance standards. The government's recycling and recovery targets are achieved as a result of the approach set out in sections 1-4 above.</p>	<p>1. Recycling (including reuse) and compost of household waste - at least 40 per cent by 2010, 45 per cent by 2015 and 50 per cent by 2020.</p> <p>2. Recovery (including recycling or composting) of municipal waste - 53 per cent by 2010, 67 per cent by 2015 and 75 per cent by 2020.</p>

Key policies and proposals delivering the Mayor's target	
POLICY 1: Inform producers and consumers of the value of reducing, reusing and recycling.	All Proposals
POLICY 2: Reducing the climate change impact of London's municipal waste management.	All proposals
Policy 3: Capturing the economic benefits of waste management	All proposals
POLICY 4: Achieving high municipal waste recycling and composting rates resulting in the greatest environmental and financial benefits.	All Proposals
POLICY 5: Stimulating the development of new municipal waste management infrastructure in London, particularly low carbon technologies	All Proposals
POLICY 6: Achieving high levels of street cleanliness	Proposals 6.3 The Mayor will encourage boroughs to recycle or compost their street cleaning waste where practicable. 6.4 The Mayor will work with a range of partners including London boroughs and the private sector to provide on-street recycling opportunities and to recycle waste from London's events.

The Mayor has set municipal waste recycling or composting targets matching the government's household recycling or composting targets for the UK. Household waste makes up about 80 per cent of London's municipal waste. The other 20 per cent of non-household waste is mostly made up of small business waste collected by London's waste authorities. In 2009/10 London recycled or composted 27 per cent of its household waste. Only about 10 per cent of London's non-household waste is recycled or composted each year. The Mayor considers that municipal waste recycling or composting targets for London are necessary

to significantly improve both household and non-household recycling and composting performance in the UK.

London did not meet the government's 2010 household waste recycling or composting target of 40 per cent. By achieving the Mayor's municipal waste recycling or composting targets in 2015 and 2020, London is expected to meet the government's 2015 and 2020 household waste recycling targets. Achieving the Mayor's reuse targets will contribute about one per cent towards London's municipal waste recycling or composting performance by 2031.

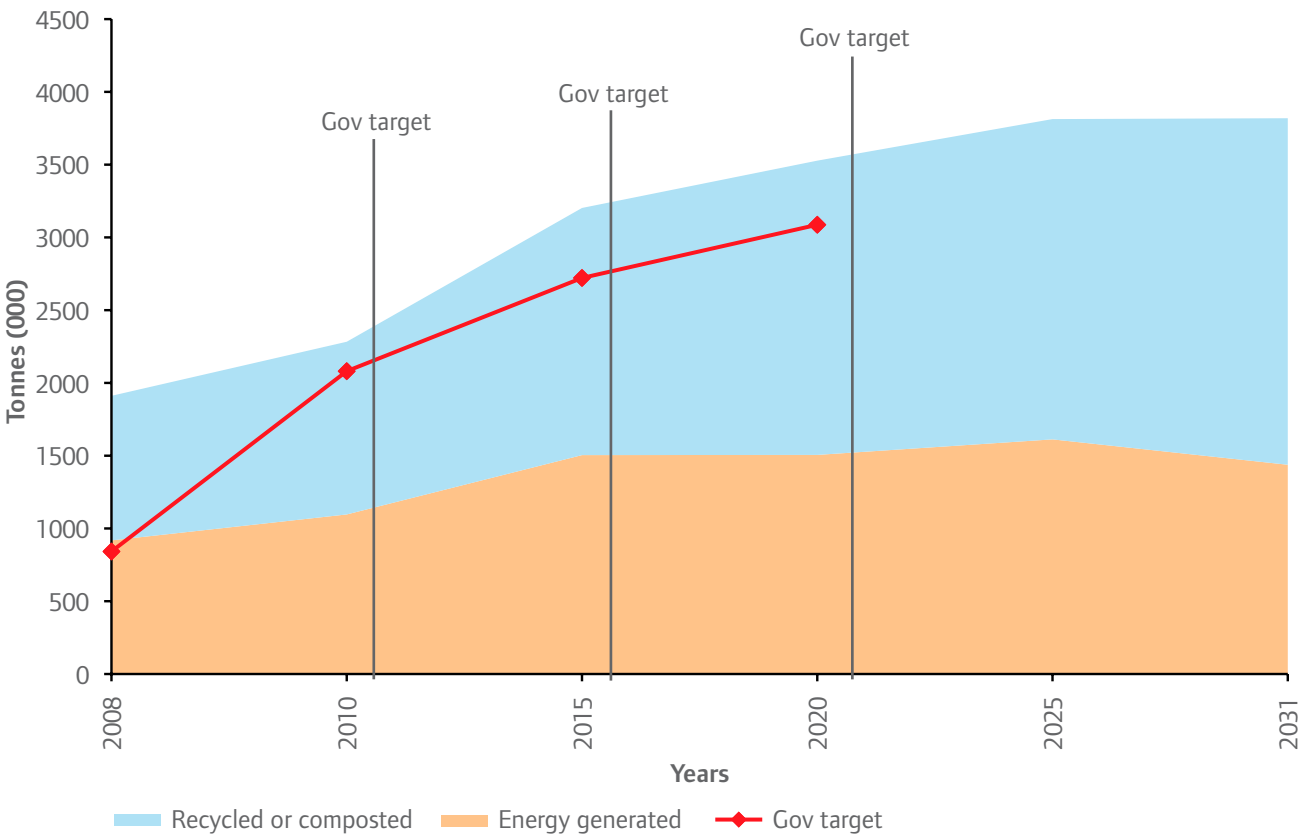
Figure 3: Achieving the Mayor's municipal recycling and composting targets

The Mayor has not set municipal waste recovery targets. However it is possible to estimate a municipal waste recovery performance by looking at the amount of municipal waste left over for energy generation as a result of achieving the Mayor's municipal waste recycling or composting targets. In 2010 about 21 per cent of London's municipal waste was sent for energy generation using incineration. This proportion is expected to increase when London's third incinerator, in Belvedere, Bexley, comes on line in 2011. The Mayor expects further energy generation capacity to be

taken up using a range of energy generation technologies.

After waste pre-treatment processes have taken place, the Mayor expects London to generate energy from about 35 per cent of its municipal waste by 2020. This proportion, combined with an expected municipal recycling or composting performance of 50 per cent by 2020, will achieve an overall 80-85 per cent municipal waste recovery rate. This performance will exceed the government's 75 per cent target by 2020.

Figure 4: London’s expected municipal waste recovery performance to 2031



Energy generation means the production of electricity, heat and transport fuel through waste to energy technologies

