
APPENDIX SEVEN

GLOSSARY OF TERMS

Advanced conversion technologies: are defined in the Renewables Obligation Order 2002 as meaning anaerobic digestion, gasification or pyrolysis. Such technologies may require pre-treatment technologies such as mechanical biological treatment (MBT) or autoclave to prepare waste for use in advanced conversion technologies.

Aggregates: granular material used in construction. Aggregates may be natural, artificial or recycled.

Anaerobic digestion: this is the biological degradation of organics in the absence of oxygen, producing biogas (typical composition of 65 per cent methane and 35 per cent CO₂) and residue (digestate) suitable for use as a soil improver.

Autoclave: is a steam sterilisation process to treat mixed waste and includes mechanical components to separate out materials suitable for recycling. The heat in the autoclave (up to 150 degrees Celsius) changes the physical characteristics of the waste. This can lead to greater recovery rates of higher quality recyclable materials than what can be achieved using mechanical biological treatment (MBT) technologies. Autoclave is also known as mechanical heat treatment (MHT).

Biodegradable waste: is defined in Council Directive 1999/31/EC on the landfill of waste as meaning any waste that is capable of undergoing anaerobic or aerobic decomposition, such as organic kitchen and green garden waste, and paper and paperboard. A proportion of textiles is deemed to be biodegradable for the purpose of implementing the Landfill Allowance Trading Scheme (LATS) – see definition.

Biomass: is defined in the Renewables Obligation Order 2002 as meaning fuel used

in a generating station of which at least 98 per cent of the energy content (measured over a period of one month) is derived from plant or animal matter or substances derived directly or indirectly therefrom (whether or not such matter or substances are waste) and includes agricultural, forestry or wood wastes or residues, sewage and energy crops (provided that such plant or animal matter is not or is not derived directly or indirectly from fossil fuel).

Biomass waste/biomass municipal waste: refers to materials derived from plant or animal matter including wood, paper, card, and organic waste (food and green garden waste).

Borough/London boroughs: There are 32 London boroughs plus the City of London. The 32 London boroughs are administered by London borough councils which are elected every four years. The boroughs are the principal local authorities in London and are responsible for running most local services in their areas, such as schools, social services, waste collection and roads.

Bottom Ash: burnt out residues from the bottom grate of waste incinerators, which represents between 20 and 25 percent of the processed waste by weight. Ferrous metals can be removed by magnetic separation for recycling and bottom ash itself is being increasingly used in the manufacture of masonry blocks and in road construction.

Bring Recycling: refers to a recycling site, see recycling site. Known as such, as the recycler has to 'bring' their materials to the site.

Brownfield land: any land or premises which has previously been used or developed and is not currently fully in use, although it may be partially occupied or utilised. The land may also be vacant, derelict or contaminated but excludes

parks, recreation grounds, allotments and land where the remains of previous use have blended into the landscape, or have been overtaken by nature conservation value or amenity use.

Business improvement districts: This concept was originally developed in the USA for increasing investment within defined areas of a city such as town centres. This is achieved through changes to local taxation, based on a supplementary rate levied on businesses within that defined area.

Calorific Value: the calorific value of a substance, typically a fuel, is the amount of heat released during the energy conversion of a specified amount of fuel. The calorific value is a characteristic for each substance of the fuel. It is measured in units of energy per unit of the substance. For the purposes of this document the fuel substances referred to are biomass and non-biomass residual municipal waste used for energy generation. The calorific value of these substances is expressed in mega joules (MJ) per kilogram of residual waste treated. See also definitions of biomass waste, non-biomass waste and residual waste.

Capital Growth Programme: Capital Growth is a partnership initiative between London Food Link, the Mayor of London, and the Big Lottery's Local Food Fund. It is championed by the Chair of the London Food Board Rosie Boycott and aims to create 2012 new community food growing spaces across London by the end of 2012. Capital Growth offers practical help, grants training and support to groups wanting to establish community food growing projects as well as advice to landowners. These new food growing spaces along with existing allotments, city farms and community gardens could be the ideal location for the by-products of composting facilities.

Carbon dioxide: is a naturally occurring gas comprising 0.04 per cent of the atmosphere. It is essential to photosynthesis in plants and is also a prominent greenhouse gas. The burning of fossil fuels such as coal or gas, and some waste materials including plastics, releases carbon dioxide into the atmosphere. It is currently the predominant scientific opinion that carbon dioxide emissions are the main cause of global warming, contributing to climate change.

Carbon dioxide-equivalent: is the universal unit of measurement used to indicate the global warming potential (GWP) of greenhouse gases. It is used to evaluate the impacts of releasing (or avoiding the release of) different greenhouse gases. For example, the GWP of methane is 21 times that of CO₂, which has a GWP of 1. Sulphur hexafluoride has a GWP of 23,900. A CO₂-equivalent figure is used to represent the warming impact of greenhouse gases. See also definition of Global Warming Potential.

Carbon intensity floor: is the CO₂eq emissions performance level set for electricity generated from London's municipal waste to achieve. The carbon intensity floor has been set at the level whereby any electricity generated from London's municipal waste is to be no more polluting in carbon terms than the electricity source it replaces. Refer to Policy 2 for more information on the carbon intensity floor.

Combined Cycle Gas Turbine (CCGT) plant: A combined cycle gas turbine (CCGT) plant uses a gas turbine to generate electricity. The waste heat also produced is used to make steam to generate additional electricity via a steam turbine. This last step enhances the efficiency of electricity generation.

Combined heat and power: The combined production of electricity and usable heat is known as combined heat and power (CHP).

Steam or hot water, which would otherwise be rejected when electricity alone is produced, is used for space or process heating.

Commercial waste: waste arising from premises which are wholly or mainly for trade, business, sport, recreation or entertainment as defined in Schedule 4 of the Controlled Waste Regulations 1992.

Co-mingled: Co-mingled Recycled materials that are collected together and are recycled following further sorting. Single stream co-mingled systems are where materials are collected in a single compartment vehicle with the sorting of the materials occurring at a Materials Reclamation Facilities. Two stream partially co-mingled systems are where residents are required to separate materials into two categories, usually fibres (paper/card) and containers (glass, cans and plastic bottles). Separate containers are provided for each category the contents of which are loaded into separate compartments on a twin compartment collection vehicle.

Communal recycling collection services: recycling collection services whereby communal recycling containers, typically 1100 litre bins, are provided for a number of properties to deposit their recyclable materials. Communal recycling collection services are generally provided to multi-occupancy properties on-site, where door step recycling collections services are not suitable or easily provided. See also definition of doorstep recycling collection services.

Composting: this is the biological degradation of organic materials, such as garden and kitchen waste, in the presence of oxygen producing gas and residue suitable for use as a soil improver (see anaerobic digestion, central composting and home composting).

Construction, demolition & excavation

waste: waste arising from the construction, repair, maintenance and demolition of buildings and structures, including roads. It consists mostly of brick, concrete, hardcore, subsoil and topsoil, but it can contain quantities of timber, metal, plastics and occasionally special (hazardous) waste materials.

Digestate: The nutrient-rich residues of anaerobic digestion that can be used as a soil improver or fertiliser.

Doorstep recycling collection services:

recycling collections services provided to individual households where recyclable material is collected from householder's doorstep. Householders receiving a doorstep collection typically, but not always, will be provided with their own container to store recyclables for collection. See also definition of communal recycling collection services.

Dry recyclables: refers to dry materials suitable for recycling including paper, card, metals, plastics, textiles, and waste electrical items. Does not include organic waste (food and green garden waste).

East London Waste Authority: Waste Disposal Authority for the London Boroughs of Newham, Redbridge, Barking and Dagenham and Havering.

Embodied carbon: The term 'embodied carbon' refers to carbon dioxide emitted at all stages of a good's manufacturing process, from the mining of raw materials through the distribution process, to the final product provided to the consumer. Depending on the calculation, the term can also be used to include other greenhouse gases.

Emissions Performance Standard (EPS):

is typically a requirement that sets specific limits to the amount of pollutants that can be released into the environment. While emission performance standards have been used to dictate limits for conventional pollutants such as oxides of nitrogen (NOx) this regulatory technique may be used to regulate greenhouse gases, particularly carbon dioxide (CO₂). The EPS relating to this document is a non-mandatory metric for London's municipal waste management activities to work towards. It applies to the CO₂eq emissions associated with the collection, treatment and final disposal of London's municipal waste. The EPS in this document is given in tonnes of CO₂eq emissions per tonne of waste treated. See also definitions of NOx and CO₂eq.

Energy generation: the generation of useful energy in the form of heat, electricity or a transport fuel from waste. Includes combined heat and power, combustion of landfill gas and heat and electricity generated or transport fuel produced using gas produced from anaerobic digestion. Energy generation technologies include incineration, gasification, pyrolysis, and anaerobic digestion.

Energy recovery from waste (EFW):

includes a number of established and emerging technologies, though most energy recovery is through incineration technologies. Many wastes are combustible, with relatively high calorific values – this energy can be recovered through (for instances) incineration with electricity generation.

Environmental Protection Act 1990 (EPA 90):

a new regulatory regime that came into force in 1990. It is designed to implement an approach to prevent harm to human health and the environment by ensuring an integrated (air,

land and water) approach to environmental regulation and protection.

Fly tipping: the illegal deposit of waste on land.

Fuel cells: acts like a constantly recharging battery, electrochemically combining hydrogen and oxygen to generate power. For hydrogen fuel cells, water and heat are the only by-products and there are no direct air pollution or noise emissions. They are suitable for a range of applications, including vehicles and buildings.

Functional Bodies: The Mayor has responsibility for appointing members to, and setting budgets for, four organisations: Transport for London (TfL), London Development Agency (LDA), London Fire and Emergency Planning Authority (LFEPA), and Metropolitan Police (MPA).

Gasification: is defined in the Renewables Obligation Order 2002 as meaning the substoichiometric oxidation or steam reformation of a substance to produce a gaseous mixture containing two or all of the following: oxides of carbon, methane and hydrogen. Gas fuels produced by gasification can be burnt to produce steam or used as a fuel for gas engines to generate energy. The gas fuels can also be used in hydrogen fuel cells to generate renewable energy.

General conformity: The GLA Act 1999 (Section 344) introduced the general conformity statutory requirement to London by amending the 1990 Act. Under the new development plan system introduced by the Planning and Compulsory Purchase Act 2004, the requirement for general conformity now applies to Local Development Plan Documents. Section 24(1) of the Act specifies that local development documents must be in general conformity with

the spatial development strategy. This means that at the point of adoption, local development documents must be in general conformity with the London Plan otherwise section 24(1) is infringed. London's waste authorities are required to be in general conformity with the Mayors Municipal Waste Management Strategy when undertaking their waste functions. The Mayor also has a power of direction under section 356 of the Greater London Authority Act, which he may use for the purposes of implementing his Municipal Waste Management Strategy.

The Greater London Authority Act was amended in 2007 and included changes governing waste. It requires waste authorities to notify the Mayor of new waste contracts before they are advertised and requires waste authorities to act in general conformity with the Mayor's Municipal Waste Management Strategy when undertaking their waste functions.

Gate fee: or tipping fee is the charge levied upon a given quantity of waste received at a waste processing facility. In the case of a landfill it is generally levied to offset the cost of opening, maintaining and eventually closing the site. It may also include any landfill tax which is applicable in the region.

GLA Group: The organisations known collectively as the GLA Group - the Greater London Authority (GLA), Transport for London (TfL), the London Development Agency (LDA), the London Fire and Emergency Planning Authority (LFEPA) and the Metropolitan Police Authority (MPA) / Service (MPS).

Global Warming Potential (GWP): Is a measure of how much a given mass of greenhouse gas is emitted to contribute to global warming. It is a relative scale which compare the gas in question to that of the

same mass of carbon dioxide (whose GWP is by definition 1). Methane has a GWP of 21. A GWP is calculated over a specific time interval and the value of this must be stated whenever a GWP is quoted or else the value is meaningless.

Global warming: is the increase in the average temperature of the Earth's near-surface air and oceans since the mid-20th century and its projected continuation. Global surface temperature increased 0.74 ± 0.18 °C between the start and the end of the 20th century. The Intergovernmental Panel on Climate Change (IPCC) concludes that most of the observed temperature increase since the middle of the 20th century was caused by increasing concentrations of greenhouse gases resulting from human activity such as fossil fuel burning and deforestation, causing climate change.

Greater London (also referred to as London): The geographical area encompassed by the 32 London boroughs and the City of London, representing most of the continuous built-up area of London and covering 1600 KM².

Greater London Authority: The organisation responsible for carrying out the functions set out in the Greater London Authority Act, including the Mayor, Assembly and four functional bodies: the London Development Agency, Transport for London, the Metropolitan Police Authority and the London Fire and Emergency Planning Authority. There is a clear separation of powers within the GLA between the Mayor – who has an executive role, making decisions on behalf of the GLA – and the London Assembly, which has a scrutiny role.

Green 500: is a carbon mentoring scheme initiated by the Mayor of London, aimed at large London organisations across private and public sectors. It is one of a number of LDA (London

Development Agency) initiatives, which aims to help cut CO₂ emissions in the capital by 60 per cent by 2025.

Greenhouse gases: Greenhouse gases are gases in an atmosphere that absorb and emit radiation within the thermal infrared range. Increased amounts of anthropogenic greenhouse gases (derived from human activities such as burning fossil fuels and raising farm stock) and deforestation are seen as the fundamental cause of the greenhouse effect causing climate change. The main greenhouse gases in the earth's atmosphere are water vapour, ozone, carbon dioxide, methane, and nitrous oxide. In addition to the main greenhouse gases, others include sulphur hexafluoride, hydrofluorocarbons and perfluorocarbons. Although these gases are less prevalent in the earth's atmosphere, they have very high global warming potential. Methane and carbon dioxide make up about 98 per cent of greenhouse gas emissions from waste activities.

Green industries: the business sector that produces goods or services which compared to other, generally more commonly used goods and services, are less harmful to the environment.

Gross Value Added: is the difference between output and intermediate (or average) consumption for any given sector/industry. That is the difference between the value of goods and services produced and the cost of raw materials and other inputs which are used up in production.

Household Waste: all waste collected by Waste Collection Authorities under section 45(1) of the Environmental Protection Act 1990, plus all waste arising from Civic Amenity sites and waste collected by third parties for which collection or disposal credits are paid under Section 52 of the Environmental Protection

Act 1990. Household waste includes waste from collection rounds of domestic properties (including separate rounds for the collection of recyclables), street cleansing and litter collection, beach cleansing, bulky household waste collections, hazardous household waste collections, household clinical waste collections, garden waste collections, Civic Amenity/Reuse and Recycling Centre wastes, drop-off/'bring' systems, clearance of fly-tipped wastes, weekend skip services and any other household waste collected by the waste authorities. Household waste accounts for approximately four-fifths of London's municipal waste.

Home composting: compost can be made at home using a traditional compost heap, a purpose designed container, or a wormery.

Incineration: normally refers to the controlled burning of waste in the presence of sufficient air to achieve complete combustion. Energy is usually recovered in the form of electric power and/or heat. The emissions are controlled under EU Directive 2000/76/EC. This Directive also applies to other thermal treatment processes such as pyrolysis and gasification, so the term incineration may be applied to a wider range of thermal waste treatment processes. See also separate definitions of mass burn incineration, pyrolysis, and gasification.

Indirect to landfill: is defined as waste to landfill following some pre-treatment (such as mechanical biological treatment or autoclave) to remove any recyclable materials prior to landfill.

Industrial Waste: waste from any factory and any premises occupied by industry (excluding mines and quarries) as defined in Schedule 3 of the Controlled Waste Regulations 1992.

Inert waste: is defined in Council Directive 1999/31/EC on the landfill of waste as waste

that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.

Integrated Waste Management: involves a number of key elements, including: recognising each step in the waste management process as part of a whole; involving all key players in the decision-making process and utilising a mixture of waste management options within the locally determined sustainable waste management system.

Joint European Support for Sustainable Investment in City Areas Scheme (JESSICA):

is an initiative of the European Commission in cooperation with the European Investment Bank and the Council of Europe Development Bank, in order to promote sustainable investment, and growth and jobs, in Europe's urban areas.

Kerbside Collection: any regular collection of recyclable material from premises, which can include collections from commercial or industrial premises as well as households. Excludes collection services delivered on demand.

Kerbside sort: systems are where materials are sorted by material type at the kerbside into different compartments of a collection vehicle.

Kilowatt: A unit of electrical power.

Landfill: sites are areas of land in which waste is deposited. Landfill sites are often located in disused quarries or mines. In areas where there are limited, or no ready-made voids, the practice of landraising is sometimes carried out, where some or all of the waste is deposited above ground, and the landscape is contoured.

Landfill Allowance Trading Scheme (LATS):

The government's key measure to meet the demands of the European Landfill Directive in England, and began on April 1, 2005. The system set allowances on the amount of biodegradable municipal waste local authorities can send to landfill. In two-tier areas, this refers to waste disposal authorities. These allowances are tradable, so that high landfilling authorities can buy more allowances if they expect to landfill more than the allowances they hold. Similarly, authorities with low landfill rates can sell their surplus allowances.

Landfill Tax: Landfill tax is paid on top of normal landfill fees by businesses and local authorities that want to dispose of waste using a landfill site. It is designed to encourage businesses to produce less waste and to use alternative forms of waste management. There are two rates of tax:

- the lower rate – £2.50 per tonne for inert waste such as rocks and soil and
- the standard rate – £48 per tonne from 1 April 2010 and increasing by £8 per tonne each year until at least 2014, when it will be £80 per tonne.

Land Use Planning: the Town and Country Planning system regulates the development and use of land in the public interest, and has an important role to play in achieving sustainable waste management.

Local authorities: see 'London boroughs/boroughs'.

London: (see definition of 'Greater London') The geographical area encompassed by the 32 London boroughs and the City of London, representing most of the continuous built-up area of London and covering 1600 KM².

London Assembly: The directly-elected London regional body comprising 14 constituency members and 11 pan-London members. A component of the Greater London Authority.

London Waste and Recycling Board (LWARB): was formally constituted in September 2008 with funding of £73.4 million from both central Government and the London Development Agency, with the objectives of using that fund in Greater London to promote and encourage the production of less waste, an increase in the proportion that is reused or recycled, and the use of methods of collection, treatment and disposal of waste that are more beneficial to the environment.

Lifecycle Assessment (LCA): Life cycle assessment techniques measure the environmental and economic costs and benefits of products and activities (in this case waste) at every stage of its existence, from production to final disposal. Such techniques can provide a basis for making strategic decisions on the ways in which particular waste in a given set of circumstances can be most effectively managed, for example to reduce costs or greenhouse gas emissions from waste activities.

London Plan: see 'Spatial Development Strategy'.

Low carbon energy: is energy generated with a low production of carbon. Low carbon energy

is typically achieved using waste with high biomass (for example food and green garden waste) composition and/or using highly efficient energy generation techniques, such as combined heat and power. See definition of Combined Heat and Power.

Mass burn incineration/conventional incineration: is the controlled burning of waste in the presence of sufficient air to achieve complete combustion. Unsorted waste is fed onto a, usually inclined, grate and burnt as a red-hot mass as it moves through the furnace. For this reason the process is also sometimes referred to as 'conventional incineration'. Plants are generally large-scale, having an annual capacity of 100,000 tonnes or more. The term 'mass burn incineration' is used in this strategy to refer specifically to this type of processes as distinct from incineration of sorted waste, and distinct from other thermal treatment energy generation processes such as pyrolysis, where air is absent, or gasification processes. See also separate definitions of incineration, pyrolysis, gasification, and Renewables Obligation Certificates.

Material Reclamation Facilities (MRFs) a transfer station for the storage and segregation of recyclable materials. Also known as Material Recycling Facility or Material Recovery Facility.

Mayor's Green Procurement Code: The Mayor's Green Procurement Code was launched up in 2001 to support London's businesses and organisations to buy products made from recycled materials. Since its inception, the Mayor's Code aims to increase recycled content product procurement to stimulating the development of markets for recycled materials. The combined purchasing power of Mayor's Code signatories diverted 394,453 tonnes of materials from landfill and saved 175,000 tonnes of CO₂ emissions in 2005/06. Over £379 million

has been spent on recycled products through the Mayor's Code, delivered by London Remade, since its launch in 2001. London organisations spent £158 million on recycled products in 2005/06 alone.

Mechanical Biological Treatment: systems consisting of a mechanical stage, where recyclables and rejects (batteries, tyres etc.) are separated to leave an organic fraction. This fraction is then sent, in the biological stage, for treatment using composting and digestion techniques. These systems provide a new generation of integrated waste management technology able to reduce landfill and mass burn incineration and to increase recycling and composting.

Methane: a greenhouse gas, 21 times stronger as a global warming gas than carbon dioxide. Methane is the predominant greenhouse gas from waste, mostly from biodegradable waste decomposing in landfill. Methane emissions from landfills make up approximately 40 per cent of UK greenhouse gas emissions.

Municipal Waste: see Municipal Solid Waste (MSW)

Municipal Solid Waste: for the purposes of developing this strategy municipal solid waste is defined in section 360(2) of the Greater London Authority Act 1999, as 'any waste in the possession or under the control of:

- a a body which, or a person who, is a waste collection authority in Greater London, or
- b a body which, is a waste disposal authority in Greater London, municipal solid waste includes all waste under the control of local authorities or agents acting on their behalf. It includes all household waste, street litter, waste delivered to council recycling points,

municipal parks and gardens wastes, council office waste, Civic Amenity waste, and some commercial waste from shops and smaller trading estates where local authorities have waste collection agreements in place. It can also include industrial waste collected by a waste collection authority with authorisation of the waste disposal authority.

Non-biomass waste: refers to fossil-fuel based waste materials including plastics, metals and textiles.

Non-household municipal waste: refers to waste generated through local authority activities including waste from local authority premises, parks and gardens, and waste collected from businesses by local authorities. Non-household municipal waste makes up about 20 per cent of municipal waste.

Non-recycled waste: refers to waste remaining after waste recycling has taken place.

North London Waste Authority: Waste Disposal Authority for the London Boroughs of Camden, Islington, Hackney, Waltham Forest, Haringey, Barnet and Enfield.

Nitrogen monoxide (NO): formed from nitrogen in the atmosphere during high temperature combustion, and the main constituent of NO_x, commonly known as nitric oxide.

Nitrogen dioxide (NO₂): formed in small amounts in the atmosphere during high temperature combustion, but the majority is formed in the atmosphere through the conversion of nitric oxide in the presence of ozone.

New and emerging technologies: technologies that are either still at a

developmental stage or are recently operating at a commercial scale. May include new applications of existing technologies. In relation to waste, these include anaerobic digestion, mechanical biological treatment (MBT), autoclave, pyrolysis and gasification.

On-the-go recycling: Is a way for commuters, tourists and visitors in London to recycle as they move around the city by ensuring there are adequate numbers of easily accessible recycling bins placed across the city on the streets, in public buildings, key venues and at work.

Organic waste: Organic waste consists of kitchen waste (e.g. potato peelings), waste food (e.g. leftovers, spoiled fruit and vegetables from markets), garden waste (e.g. grass clippings and hedge trimmings) and industrial waste (e.g. from agricultural and food processing factories).

Oxides of nitrogen (NO_x): includes both NO and NO₂

Particulate matter (PM₁₀): Particles with an equivalent aerodynamic diameter of ten microns or less and is small enough to penetrate the lungs.

Pre-treatment: for waste to be considered as pre-treated it must comply with the three-point test for the definition of 'treatment'. Treatment must be physical, thermal, chemical or biological process which can include sorting that alter the characteristics of the waste and do so in order to reduce its volume; reduce its hazardous nature; facilitate its handling; or enhance its recovery. One of the simplest forms of pre-treatment for general waste is categorising a proportion of each waste stream and segregating it for recycling, which could be done either manually or at a sorting facility. Pre-treatment technologies include mechanical biological treatment and autoclave.

Prevention: The Waste and Resources Action Programme (WRAP), in developing their waste prevention toolkit, define waste prevention as 'minimising the quantity (weight and volume) and hazardousness of household-derived waste, generated in a defined community. Includes avoidance, reduction and reuse.

Proximity Principle: dealing with waste as near as practicable to its place of production.

Pyrolysis: is defined in the Renewables Obligation Order 2002 as meaning the thermal degradation of a substance in the absence of any oxidising agent (other than that which forms part of the substance itself) to produce char and one or both of gas and liquid.

Recovery: is defined in Waste Strategy 2007 as meaning obtaining value from waste through reuse; recycling; composting; other means of material recovery (such as anaerobic digestion); or energy recovery (combustion with direct or indirect use of the energy produced, manufacture of refuse derived fuel, gasification, pyrolysis and other technologies). In addition, certain operations are defined as recovery operations in Annex IIB of Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

Recycling: involves the reprocessing of waste, either into the same product or a different one. Many non-hazardous industrial wastes such as paper, glass, cardboard, plastics and scrap metals can be recycled. Special wastes such as solvents can also be recycled by specialist companies, or by in-house equipment.

Recycling Site: a group of containers for the collection of a variety of materials for recycling. Often located in supermarket or public building car parks or on street corners. Commonly

referred to as 'bring banks' but usually collecting a variety of materials. Also see bring site.

Reduction: achieving as much waste reduction as possible is a priority action. Reduction can be accomplished within a manufacturing process involving the review of production processes to optimise utilisation of raw (and secondary) materials and recirculation processes. It can be cost effective, both in terms of lower disposal costs, reduced demand for raw materials and energy costs. It can be carried out by householders through actions such as home composting, reusing products and buying goods with reduced packaging.

Regional self-sufficiency: dealing with wastes within the region where they arise. Waste regional self-sufficiency is dealt with in more detail in the London Plan: 'The Mayor's Spatial Development Plan for London'.

Renewable Obligation Certificates: are certificates issued when electricity is generated from renewable sources. The Electricity Act 1989 requires electricity suppliers to meet a certain percentage of their total sales from renewable sources. Under the Renewable Obligation Order 2002, only plants that generate electricity from biomass will be eligible although the biomass may be a waste. Plants processing wastes must, however, use advanced conversion technologies in order to be eligible, and it is only the biomass component of the waste that will earn Renewable Obligation Certificates or ROCs. Advanced conversion technologies are defined in the Order as anaerobic digestion, gasification and pyrolysis.

Residual or 'black bag' waste: Residual waste is that portion of the waste stream collected by local authorities which is not re-used, recycled or composted and remains to be treated through

the generation of energy and/or materials or through disposal to landfill.

Residues: are secondary waste materials requiring further treatment or disposal following a waste recycling, composting or treatment process. For example, bottom ash following the incineration of waste or contaminated recyclable material from a Material Reclamation Facility.

Reuse: can be practised by the commercial sector with the use of products designed to be used a number of times, such as reusable packaging. Householders can purchase products that use refillable containers, or reuse plastic bags. The processes contribute to sustainable development and can save raw materials, energy and transport costs.

Reuse and Recycling Centres (RRCs): sites operated by local authorities where residents and local businesses can take their waste for reuse, recycling and disposal. RRCs are sometimes also referred to as Civic Amenity sites

Revenue-sharing contract: contractual arrangement where income generated from sale of waste materials and products (including recyclable products and energy generated from waste) is shared between both local authority and waste contractor.

Social housing: is an umbrella term referring to rental housing which may be owned and managed by the state, by not-for-profit organisations, or by a combination of the two, usually with the aim of providing affordable housing.

Solid Recovered Fuel (SRF): also known as refuse derived fuel (RDF) is a fuel produced by shredding and dehydrating solid waste using a waste converter or treatment technology. The fuel is then typically used to generate energy

using a thermal treatment facility. SRF consists largely of non-recycled waste including plastics and biodegradable waste. SRF processing facilities are normally located near a source of solid waste and, while an optional thermal treatment facility is normally close to the SRF production facility, it may also be located at a remote location. SRF can be distinguished from RDF in the fact that it is produced to reach a technical and/or emissions performance standard.

Source-separate collection: recycling collection schemes from homes or businesses where materials for recycling are collected separately from other materials, either by different vehicle or at a different time to the ordinary household or business waste collection.

South East Region: the South East Region runs in an arc around London from Kent at the South East extremity along the coast to Hampshire, Southampton and Portsmouth in the South West, and then to Milton Keynes and Buckinghamshire in the North. In total it encompasses 19 counties and unitary authorities and 55 district authorities.

Spatial Development Strategy: the Mayor is required by law (under the Greater London Authority Act 1999) to produce a spatial development strategy for London, known as 'the London Plan'. London boroughs in developing their local development documents have to be in 'general conformity' with the London Plan.

Thermal treatment – a term given to any waste treatment technology that involves high temperatures in the processing of the waste feedstock for the purposes of generating heat and/or power. Thermal treatment is a generic term encompassing incineration, gasification and pyrolysis. See also 'treatment' definition.

Third sector: Description for voluntary or not-for-profit organisations, charities, and social enterprises.

Transport for London (TfL): a functional body of the Greater London Authority, accountable to the Mayor for implementing his Transport Strategy, with responsibility for the operation of buses, the Docklands Light Railway, Croydon Tramlink, and in due course the Underground, and for regulating taxis and private hire vehicles, and operation of the Transport for London Road Network.

Treatment: involves the chemical, biological, or physical processing of certain types of waste for the purposes of rendering them harmless, reducing volumes before landfilling, or recycling certain wastes.

Unitary authorities: a local authority, which has the responsibilities of both Waste Collection and Waste Disposal Authorities.

Virgin materials: virgin materials are natural and have not previously been used (for example (natural) wood, coal, gas or oil).

Waste: the strict legal definition of waste is extremely complex but it encompasses most unwanted material which has fallen out of the commercial cycle or chain of utility, which the holder discards, or intends to, or is required to discard.

Waste Arising: the amount of waste generated in a given locality over a given period of time.

Waste authority: for the purpose of this strategy, the term waste authority is a collective term to include London unitary, collection, and waste disposal authorities.

Waste Collection Authority (WCA): the authority responsible for arranging the collection of household waste in their area (in London this is on a borough-wide basis) and commercial or industrial waste on request.

Waste Disposal: this is defined by the list of operations that constitute disposal (for under Part III of Schedule 4 of the Waste Management Licensing Regulations). This includes landfill, land raising, incineration, permanent storage etc.

Waste disposal authorities (WDAs): the Authority responsible for arranging for the disposal of waste collected in their area by the Waste Collection Authority. They also provide sites where householders can deposit waste free of charge (Re-use and Recycling Centres).

Western Riverside Waste Authority: Waste Disposal Authority for the Royal Borough of Kensington and Chelsea, The London boroughs of Hammersmith and Fulham, Wandsworth and Lambeth.

West London Waste Authority: Waste Disposal Authority for the London Boroughs of Richmond upon Thames, Hounslow, Ealing, Brent, Harrow and Hillingdon.

Waste Hierarchy: suggests that the most effective environmental solution may often be to prevent or reduce the amount of waste generated; where further reduction is not practicable, products and materials can sometimes be used again, either for the same or a different purpose – reuse; failing that, value should be recovered from waste, through recycling, composting or energy recovery from waste; only if none of the above offer an appropriate solution should waste be disposed.

Waste management: any activity associated with the collection, treatment, and energy generation and final disposal of waste.

Waste Management Industry: the businesses (and not-for-profit organisations) involved in the collection, management and disposal of waste.

Waste Transfer Station: a site to which waste is delivered for sorting prior to transfer to another place for recycling, treatment or disposal.

World City: a globally successful location for a range of functions, particularly business, culture and tourism, and headquarters and government functions; currently applying to only a small number of the world's great cities – London, New York, Paris and Tokyo.

Zero waste: Waste Strategy 2007 defines zero waste as 'A simple way of encapsulating the aim to go as far as possible in reducing the environmental impact of waste.' It is a visionary goal which seeks to prevent waste occurring, conserves resources and recovers all value from materials.

ABBREVIATIONS

AD	Anaerobic digestion	MGPC	Mayor of London's Green Procurement Code
BIDs	Business Improvement Districts	MJ	Mega joule
BMW	Biodegradable Municipal Waste	MRF's	Materials Reclamation Facilities
BREW	Business Resource Efficiency and Waste	MSW	Municipal Solid Waste
CCGT	Combined Cycle Gas Turbine	NI	National Indicators
C&I	Commercial & industrial waste	NLWA	North London Waste Authority
CHP	Combined Heat and Power	NO ₂	Nitrogen Dioxide
CDEW	Construction, demolition & excavation waste	NO	Nitrogen Monoxide
CFWR's	Committed Food Waste Reducer's	NO _x	Oxides of Nitrogen
CO ₂	Carbon dioxide	PPS10	Planning Policy Statement 10
CO ₂ /kWh	Carbon dioxide produced per kilowatt hour of electricity generated	PM10	Particulate Matter 10
CO ₂ eq	Carbon dioxide - equivalent	RFL	Recycle for London Campaign
DEFRA	Department for the Environment Food and Rural Affairs	ROCS	Renewable Obligation Certificates
EA	Environment Agency	SELCHP	South East London Combined Heat and Power
ELWA	East London Waste Authority	SLWP	South London Waste Partnership
EPS	Emissions Performance Standard	SME	Small to medium sized businesses
EU	European Union	TFL	Transport for London
FORS	Freight Operator Recognition Service	UA	Unitary Authority
FRN	Furniture Reuse Network	UK	United Kingdom
GHG	Greenhouse gas	WDA	Waste Disposal Authority
GLA	Greater London Authority	WLWA	West London Waste Authority
GLC	Greater London Council	WRAP	Waste Resources Action Programme
GVA	Gross Value Added	WRATE	Waste and Resources Assessment Tool for the Environment
Hhld	Households	WRWA	Western Riverside waste Authority
JESSICA	Joint European Support for Sustainable Investment in City Areas scheme		
Kg	Kilograms		
Kt	Kilotonnes		
Kt CO ₂ eq	Kilotonnes of carbon dioxide - equivalent		
KWh	Kilo Watt Hour		
LA	Local Authorities		
LATS	Local Authority Trading Scheme		
LC	London Councils		
LCRN	London Community Resource Network		
LRN	London Reuse Network		
LWARB	London Waste and Recycling Board		
MBT	Mechanical biological treatment		
