

## Policy Position Statement

# Waste & Resource Management

### Purpose

The purpose of this Policy Position Statement is to outline the main issues with respect to waste and resources and the potential impact of the UK Government's approach to their management. Further information on waste prevention and minimisation can be found in the more detailed CIWEM report *Less is More*<sup>i</sup>.

### CIWEM calls for

1. The UK Government and devolved administrations, as appropriate, to
  - a. Develop coherent and integrated strategies for waste and resource management at local, national and European levels.
  - b. Promote the development and implementation of European Directives and other international agreements that fully recognise both the interests of the UK waste industry, human health and the environment.
  - c. Provide a variety of voluntary, fiscal and regulatory incentives to provide a clear, consistent framework to create a resource-efficient, circular economy.
2. A commission-type structure or Office for Resource Management to be set up to establish and monitor the impact of government policies on resource use and encourage cross-departmental working.
3. The UK Government and devolved administrations to promote waste management options at the top of the waste hierarchy, creating optimum material efficiency. Fiscal drivers that are clearly linked to the hierarchy are required.
  - a. More of the costs of managing downstream waste should be assigned to the producer.
  - b. A greater emphasis is needed on waste prevention and minimisation.
  - c. Acknowledgement that recycling falls half way down the waste hierarchy and is only part of the solution.
  - d. Introduce methods of measuring progress towards implementing the waste hierarchy such as carbon accounting.
4. The Government to commit to funding and to work more closely with Local Authorities and agencies in educating and supporting the general public, communities and industry in good waste and resource management practices.

5. Waste and resource management plans and contracts for waste management services to be sustainable, particularly in terms of human health, economic viability and protection of the environment.
6. Planning at all levels to be more coherent on delivering the objectives of the waste hierarchy. The protection of the environment and human health should be considered at every stage of design, development and operation of waste and resource management facilities.
7. The Government to realise the immense potential for green jobs, skills and products for export growth in the sector through appropriate fiscal and regulatory environments.
  - a. Encourage mainstream green accounting through tax allowances based on a coherent, nationally based framework of carbon life cycle assessment structures.
  - b. Provide incentives to small and medium sized enterprises to improve their waste and resource management practices.
  - c. Create stronger motivation to shift attitudes and behaviour towards waste reduction and material efficiency, for example with economic instruments.

**CIWEM is the leading independent Chartered professional body for water and environmental professionals, promoting excellence within the sector.**

## Context

Waste and resource management is a global issue that impacts at the local, regional, national and international scale with the potential to cause harm to the environment and human health, and add to climate change if poorly undertaken. Resources are finite and continuing with current patterns of waste and resource use will lead to resource insecurity and cannot go on indefinitely.

The UK generated some 200 million tonnes of waste in 2012. Half of this was generated by construction (50%), commercial and industrial activities generated almost a quarter (24%), households are responsible for 14% and a further 12% is classed as 'other'<sup>ii</sup>. Defra figures also show waste generation split by waste material and final treatment. In recent years an increasing amount of municipal waste has been diverted from landfill and recycled (figure 1). The recycling rate of 'waste from households' in England reached 44.1% in 2013<sup>iii</sup>. This is an improvement, yet fundamentally the UK continues to produce too much waste with the remainder still either sent to landfill or for thermal treatment (generally with energy recovery).

The Government needs to play its part by providing a variety of voluntary, fiscal and regulatory incentives to provide a clear, consistent framework to create a resource-efficient, circular economy. CIWEM also urges environmental and waste management professionals to develop a better partnership through engagement with the public and third sector organisations. They should use clear and readily understood language to foster the role of waste as a resource.

There also needs to be a greater focus on resource efficiency and waste prevention in the commercial and industrial waste sectors. This will help play a greater part in growing the economy and provide a range of business opportunities. Defra estimates that UK businesses

could save more than £20bn per year by simple steps to use resources more efficiently<sup>iv</sup> and SITA has found that moving towards a circular economy could generate an additional £600 million in social value (from community wellbeing and cohesion) by 2020<sup>v</sup>.

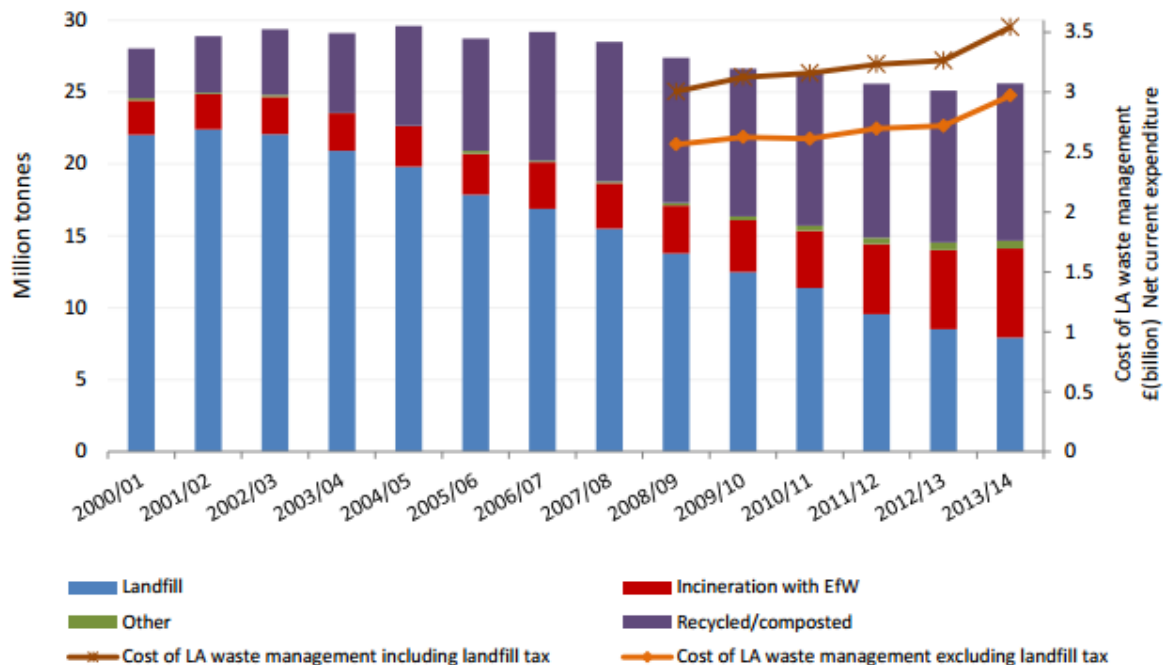


Figure 1. Local authority collected waste management, England 2000/01 – 2013/14<sup>vi</sup>

## Waste legislation

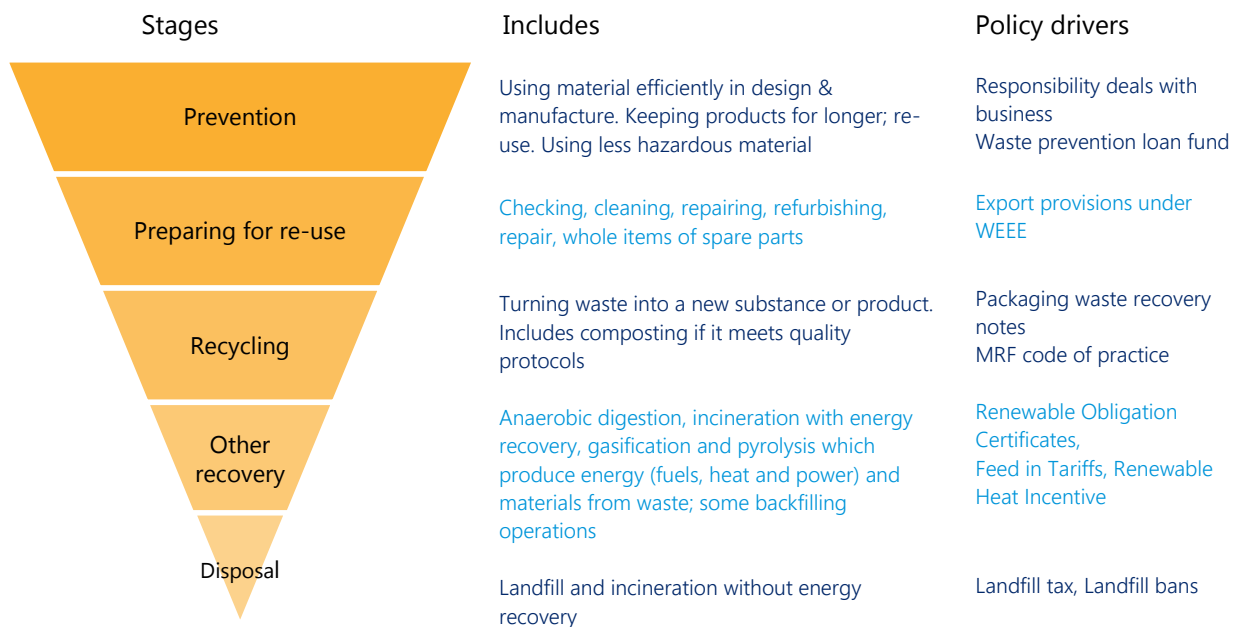
Waste must be dealt with in a manner which meets European and domestic regulations and causes minimal harm to the environment. European legislation now dominates the direction of waste management including instruments such as the *Landfill Directive*<sup>vii</sup>, a range of “producer responsibility” directives on specific waste streams such as packaging, waste electrical and electronic equipment end of life vehicles and batteries and more recently, a revised *Waste Framework Directive*<sup>viii</sup>. The Waste Framework Directive details the waste hierarchy (figure 2) and is transposed by the *Waste (England and Wales) Regulations 2011*<sup>ix</sup>.

## Discussion

### Preventing waste and increasing material efficiency

The principal opportunities to prevent waste occur upstream at the top of the hierarchy by influencing the design, production and use stages. Yet this can be out of the control of the waste management industry. There is a lack of real regulations or incentives tasked with driving waste minimisation and prevention at the top of the hierarchy and it is largely left to voluntary agreements (see policy drivers in figure 2). Fiscal drivers that are clearly linked to the hierarchy are needed to further promote minimisation of the production of waste supported by a circular flow of resources and materials, designed to facilitate reuse and recycling wherever possible.

CIWEM considers the environmentally responsible use of materials should be unrelated to whether they are raw materials, products or waste.



**Figure 2. The Waste Hierarchy. Adapted from Defra Waste Review, 2011**

Domestically the increase in landfill tax and statutory recycling and landfill diversion targets for municipal waste have created a drive to reduce landfilling and increase recycling, but these are not necessarily the most effective ways of reducing the impact of waste management and increasing material efficiency.

The goal of material efficiency is to reduce the total requirement for material production and processing. It is distinguished from resource efficiency (where all resources are measured with a single weight measure) and from product based approaches (often driven by life-cycle assessment studies, where it is unclear whether improvement to a particular product has any global significance)<sup>x</sup>. Figure 3 indicates the differences between energy efficiency and material efficiency.

Much emphasis is now placed on recycling but as an environmentally sustainable solution, recycling is only part of the answer. Product design and marketing still often ignore material efficiency measures contributing to limited waste avoidance and, through poor segregation, to mixed waste streams hampering effective waste reduction and minimisation. A key problem in tackling waste minimisation is effectively framing requirements for the public and business as many consumers currently cannot exercise control of the “wastes” that they buy as product. Excess packaging is often criticised, but very often such packaging prevents food waste due to damage in transfer from farm to fork and therefore benefits the environment.

Greater resource efficiency and minimisation of waste, at the top of the waste hierarchy remain major targets in modern waste management practice and represent simple and effective means of reducing costs to businesses and householders. Despite its efforts the UK is allegedly currently lagging behind many other EU Member States in this area, although reporting standards may be variable.

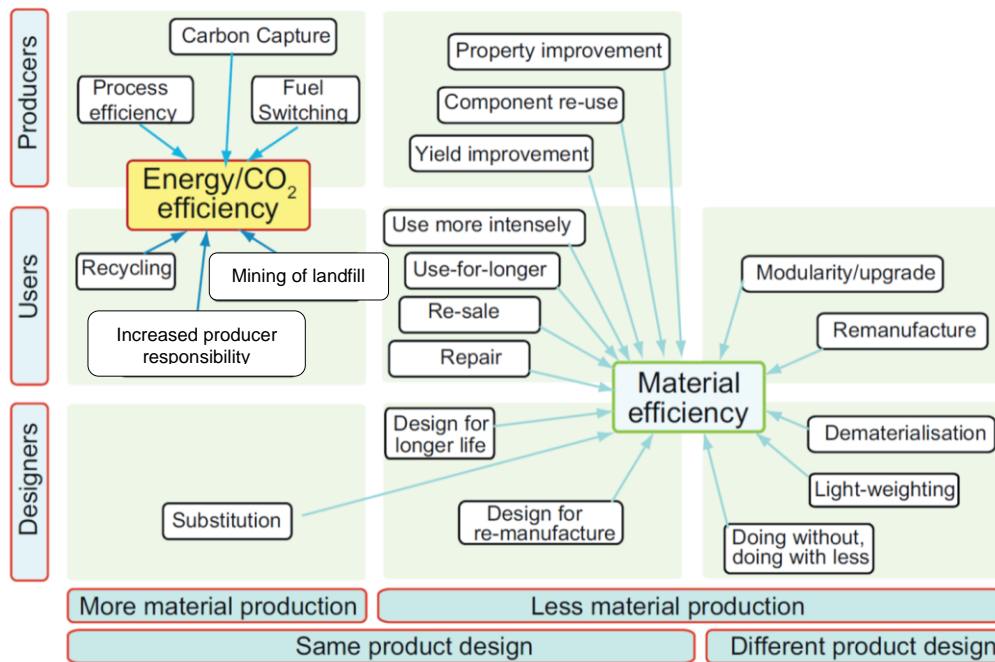


Figure 3. Material efficiency contrasted with energy efficiency<sup>xi</sup>

### Government intervention

Defra's review of the Waste Policy in England<sup>xii</sup> in 2011 and the Waste Prevention Programme for England<sup>xiii</sup>, have had limited impact, however the Resource Security Action Plan<sup>xiv</sup> produced by Defra and BIS in 2012 was a useful document. The decision<sup>xv</sup> by the Coalition Government that as of April 2014 Defra would no longer have the capacity to take forward new policy work in waste and resources was very disappointing. This included areas such as commercial and industrial waste, construction and demolition waste, as well as energy from waste, anaerobic digestion and food waste and also that the amount of generic support to local authorities on waste contracts would be reduced.

In 1995 the economist David Pearce suggested that the role of policy has to be to drive a wedge between consumption and resource consumption<sup>xvi</sup>. Without government policy it seems unlikely that much progress will be made in this area. CIWEM urges the Government to commit to resourcing (e.g. from landfill tax) and to work more closely with Local Authorities and agencies in educating and supporting the general public, communities and industry in good waste and resource management practices.

Solutions require strong and lasting partnerships and concerted action through the commitment of governments, industry and other sectors. Leadership and example are required for public support to be engendered and strategies converted into practical, cost-effective and environmentally sound systems. This should lead to a reduction in unnecessary use of resources and energy, an increase in waste reduction and minimisation, an improved environment and an improved quality of life.

The Organisation for Economic Co-operation and Development (OECD) has a long-running programme on Sustainable Materials Management (SMM) and in a 2012 report<sup>xvii</sup> stated that their studies had shown that a key lesson for policy makers is that SMM requires greater

coherence of policies across sectors than is currently attained. Achieving this requires cooperation across different parts of government, which is not current practice. It also requires enhanced partnerships between economic actors as well as an international perspective.

To make the UK's economy and society one of the most resource efficient in the world there needs to be high profile cross-government action. Collaboration is essential to achieve the estimated £20bn per year that UK businesses could save by taking simple steps to use resources more efficiently. CIWEM considers a commission-type structure or Office for Resource Management should be set up to establish and monitor the impact of policies on resource use<sup>xviii</sup> and join up from actions from the departments of Defra, DECC, DCLG, BIS and the Treasury.

## Local Government

Statutory recycling targets for each Local Authority for the Landfill Directive are in the process of implementation as well as the reduction of organic waste inputs to landfill through diversion targets. It is up to each individual Waste Disposal Authority how they achieve the reduction to landfill and for Local Authorities to increase recycling rates to meet their targets. However there are flaws in such strategies. Recycling falls half way down the waste hierarchy and should not be the priority in a material efficient system, with prevention and minimisation strategies promoted first.

Recycling does not occur until recycled products have been produced, yet the amount of waste collected for recycling is what is counted, ignoring the amount of this recycle that will be discarded as it is unsuitable for recycling. Waste segregation needs to be improved at source (i.e. collection) to prevent cross-contamination destroying recycle value. Only waste that is actually recycled should be counted as recycled waste, rather than counting waste that is collected for recycling. This would require much greater engagement and resource to ensure that there is quality data that is collected and validated.

## Private sector

The (non-waste industry) private sector has experienced mixed fortunes in its approach to waste and resource management. Some larger organisations with high profile trade associations were able to obtain benefits from waste and energy saving initiatives such as the "Envirowise" programme, now absorbed into WRAP. However many smaller and medium size enterprises appear to lack access to information or expertise.

Regulation, on the other hand, has extended its reach over the years as more producer responsibility initiatives have come on-stream. Producer responsibility is about making sure businesses that manufacture, import and sell these products are responsible for their end of life environmental impact<sup>xix</sup>. Producer responsibility laws in the UK cover packaging, electrical and electronic equipment (EEE), batteries and end of life vehicles (ELVs). Hazardous waste landfill has been restricted to vastly fewer sites and landfill tax has escalated. However, nearly all producer responsibility initiatives focus on recycling rather than waste prevention and reuse.

The waste management industry has experienced a shift in its pattern of operation over the past decade or so. Fewer landfills and a requirement for waste pre-treatment have driven much of this change, a trend likely to continue, and public sector procurement has produced demand

for long term, robust but challenging solutions to deliver the diversion and recycling targets. Yet many technologies beyond conventional waste to landfill or incineration remain relatively underutilised. Pyrolysis and anaerobic digestion is still limited and the suitability of anaerobic digestion for food waste alone, needs further discussion.

The construction sector, although already exceeding the 2020 recycling target of 70%, requires further guidance on waste reduction. Many of the larger corporations and larger SMEs have the expertise and knowledge to extend their reuse/ recycling capability, but not necessarily the incentive, where current practice is driven by commercial rather than environmental economics. Smaller SMEs, however, do not always have access to this knowledge or sources of information and would benefit from further Government (local or national) guidance and incentives. At present, many initiatives are driven by the industry itself, predominantly through the lobbying of the larger corporations, without progress being adequately disseminated effectively.

### Public acceptability of new waste management facilities

The planning process for new waste management facilities can cause conflicts at both a national and local level. A lack of public confidence and understanding and lengthy procedures mean that it can take many years for consent to be granted to construct a new facility. This results in considerable time and resources being devoted to the approval stages beyond the design and construction of new waste management facilities, slowing the achievement of mandatory targets. Still more needs to be done to increase public confidence and ownership of the solutions to ensure that facilities come on-stream when required.

### Waste crime

The estimated cost of waste crime to Britain's economy is £568 million a year<sup>xx</sup>. Generally this is from a minority of rogue operators who are undermining and undercutting the law-abiding operators. There is now more evidence of the involvement of organised criminal gangs in waste crime. This calls for further action in combatting environmental crime, through multi-agency coordination, providing a joined-up approach on money laundering, tax evasion, illegal immigration (with or without enslavement) and other criminal activities taking place through waste sites or companies

All waste operations should be conducted according to regulatory requirements without causing harm to the environment and human health. We support improvements to the system with more emphasis on resourcing the combatting of criminal activity infiltrating and abusing the waste market. Measures to tackle failures of poor performance at permitted and exempt activities operating as legitimate commercial enterprises should then be reviewed in line with the Macrory<sup>xxi</sup> review of regulatory penalties.

### December 2015

*Note: CIWEM Policy Position Statements (PPS) represents the Institution's views on issues at a particular point in time. It is accepted that situations change as research provides new evidence. It should be understood, therefore, that CIWEM PPS's are under constant review, and that previously held views may*



alter and lead to revised PPS's. PPSs are produced as a consensus report and do not necessarily represent the view of individual members of CIWEM.

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- i CIWEM. 2011. Less is More: A lifecycle approach to waste prevention and resource efficiency
  - ii Defra. 2015. Official Statistics. UK Statistics on waste 2010-2012 [Government Statistical service](#)
  - iii Defra. 2015. Digest of waste and resource statistics – 2015 edition  
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  - iv Defra. 2012. Resource security action plan
  - v SITA. 2012. Creating Social Value
  - vi Defra. 2015. Digest of waste and resource statistics – 2015 edition
  - vii European Commission. 1999. [Landfill directive](#)
  - viii European Commission. 2008. Directive 2008/98/EC on waste (Waste Framework Directive)
  - ix [Waste \(England and Wales\) Regulations 2011](#)
  - x Allwood J.M., Cullen, J.M. and Milford, R.L. 2010. Options for achieving a 50% cut in industrial carbon emissions by 2050. *Environment Science Technology*. 44 (6) 1888-1894
  - xi Clift, R and Allwood J. 2011. JCE v837.
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  - xiii Defra. 2013 [Waste prevention programme for England](#).
  - xiv Defra and BIS. 2012. [Resource Security Action Plan](#)
  - xv Letter of 6 November 2013 from Dan Rogerson MP, Parliamentary Under Secretary for Water, Forestry, Rural Affairs and Resource Management
  - xvi Pearce, D. 1995. Blueprint 4 Capturing Global Environmental Value. Earthscan.
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  - xviii CIWEM. 2011. Less is More
  - xix Environment Agency, BIS and National Measurement Office. 2015. [Producer responsibility regulations](#)
  - xx The Environmental Services Association Education Trust. 2014. Waste crime: Tackling Britain's dirty secret
  - xxi Better Regulation Executive. 2006. Macrory Review of Regulatory Penalties.