

## **Background information**

### **Zero waste economy**

The Government's overarching approach to waste is to work towards a zero waste economy. Part of the work of the Review of Waste Policies will be to define more closely what this means, setting clear measurable objectives, and potentially accompanying this with targets in the short, medium and longer terms. As a starting position, the Government has already made clear that a zero waste economy is not where no waste is produced. The Government envisages that amongst others, the zero waste economy will have the following characteristics:

- resources are fully valued – financially and environmentally.
- one person's waste is another's resource.
- over time, we get as close as we possibly can to zero landfill.
- a new public consciousness in our attitude to waste.

This Call for Evidence is the first step in developing these ideas into something more holistic with clear and measurable outputs.

### **Waste prevention**

Waste prevention is the term used to describe actions taken to reduce the quantity of waste that is generated, and to reduce the hazardousness or environmental impacts of waste. This can include activities to design more resource efficient products and those which can be repaired easily. Individuals can also play a role, through activities such as hiring or borrowing rather than purchasing products, using leftovers, buying second hand and giving away unneeded items.

There are already a number of initiatives in train on waste prevention, including WRAP's '*Love Food, Hate Waste*' campaign, which aims to reduce the huge quantities of avoidable food waste, voluntary responsibility deals with business (e.g. the Courtauld Commitment with major retailers to make significant reductions to the levels of food waste and packaging), construction commitments on halving waste to landfill, voluntary standards and environmental management systems for business, Defra's '*Saving Money: It's your Business*' campaign, and work on low carbon communities.

Local authorities are often already active in this area as well. Some local authorities have set up structures such as local waste prevention plans and furniture reuse programmes. There are also existing private and voluntary schemes, such as networks of second hand and charity shops, and online forums for selling or giving away unwanted items.

### **Preparing for reuse**

Preparing for reuse means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing.

Waste Disposal Authorities have the power to pay disposal credits for re-use, and Waste Collection Authorities have the power to pay collection credits for re-use to third parties. These are similar to Recycling Credits. Credits are paid for the tonnage of waste reused. As the material must have become waste, credits are in effect only available for preparing for re-use activities.

Defra funded the Furniture Reuse Network to set up an accreditation scheme for their members to access national re-use contracts.

## **Recycling**

Recycling waste materials, rather than sending them to landfill, is important as it saves energy and conserves finite resources. According to RecycleNow, current UK recycling is estimated to save more than 18 million tonnes of carbon dioxide a year – the equivalent to taking 5 million cars off the road.

It is already possible to recycle a huge number of products, from batteries to plastic bottles, both at home and at work. The current rate of household recycling is around 39%, compared to just 14% in 2000/01. Collection and recycling services can vary between councils due to the different challenges of collecting materials from urban and rural environments, plus the availability of waste infrastructure in the area. Services such as RecycleNow are helping to communicate what is available in each location, while the Waste Resources Action Programme (WRAP) is working to help businesses and individuals to reduce, reuse and recycle their waste, develop more sustainable products and use resources more efficiently.

Whilst local authorities should make decisions about the most appropriate way to collect and deal with their waste in their area, taking into account local circumstances, the Government believes in the power of incentives rather than penalties. We want to encourage councils to reward householders for the right behaviours and incentivise them to recycle more, rather than penalise those who do not. WRAP's research on barriers to recycling<sup>1</sup> revealed that more than half (56%) of recyclers would be encouraged to recycle more if they received an incentive for doing so. As an example, Windsor & Maidenhead Council have rolled out a Recyclebank scheme, which rewards people up to £135 in vouchers for recycling their waste.

Many businesses can achieve high rates of recycling, but the Government recognises that small and micro-sized businesses in particular often face significant barriers of cost, time and space which mean it is not as easy for them to recycle their waste as they would wish. We want to help businesses overcome these barriers and make it as easy for them to recycle at work as it is at home. We also want to look for opportunities for greater links between household and business waste collection, sorting and recycling.

## **Energy Recovery**

Energy recovery is about extracting, through various technologies, Energy from Waste. Energy from waste (EfW) processes include direct combustion (incineration), gasification, pyrolysis, anaerobic digestion and others. EfW can be an effective waste management option. It avoids methane emissions from waste that would otherwise rot in landfill and using waste as a fuel can replace fossil fuels such as oil, coal or gas – both of these factors deliver climate change benefits. The technology used choice depends on the type of waste available, local circumstances and finance. The Government has therefore not made recommendations on technology type, but has supported the provision of infrastructure through the Waste Infrastructure Delivery Programme.

The exception is Anaerobic Digestion which, in England, has been encouraged for separately collected food waste because it meets a number of environmental objectives, such as: reducing greenhouse gas emissions; producing renewable energy for heat, power and transport fuel; recycling nutrients back to land; and reducing air and diffuse water pollution). The Coalition has committed to a huge increase in energy from waste through Anaerobic Digestion. Energy from waste has a key role in the government's commitment to working towards a zero waste society and being the greenest government to date.

A separate cross-Government Energy from Waste project is underway with the intention of reporting later in 2010. As well as inputting into the Review of Waste Policies, this will from a technical perspective consider what technologies are best deployed in relation to available feedstocks.

## **Disposal**

Although the Government holds an ambition to move towards a zero waste economy, it is accepted that on that journey there will be a need, however reduced, for some disposal of products and materials that cannot be dealt with in any other way.

Historically, the UK relied on landfill as its main means of disposing waste. This is now viewed as the option of last resort for many types of waste, particularly biodegradable waste, due to drivers such as climate change and EU targets. There are already a number of methods in place to divert waste from landfill, particularly: the landfill tax (£48/tonne in 2010/11), the EU Landfill Directive targets for biodegradable municipal waste (BMW), and the Landfill Allowance Trading Scheme and PFI programme that helps councils to build alternative waste facilities for BMW.

However, there may be some types of waste where disposal through landfill remains the most appropriate option, such as some types of hazardous waste where recovery or recycling are not recommended, rubble and soil from construction and demolition which is used to restore exhausted mineral workings, and process residues for which there is only a limited market at present, such as pulverised fuel ash from coal-fired power stations and incinerator bottom ash.

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