
Chapter 6. Waste – Towards a Zero Waste Economy

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Section 6.1. Introduction

6.1.1. Our wasteful society

‘Waste’ is the word we have given to everything for which we have no further use. The economic model that rich countries have constructed not only means that we produce a great deal of waste but that, up to now, we have had little incentive to do anything productive with it. Currently it takes around 20 tonnes of raw material inputs to produce one tonne of consumption and, of the latter, 970 kgs is waste within 12 months – in terms of the products it displaces. Thus we have a doppelganger to our consumption economy – a waste economy which is 20 times as great. The habit of mind that this has engendered is still very widespread but the growing acceptance of recycling and the popular campaigns against excess packaging show that there is the beginning of a real change in public perception.

Nonetheless, we have not yet accepted that it is not only the growth in emissions that we have to decouple from economic growth; it is also the production of waste. The costs of making it in the first place and of getting rid of it subsequently, if expressed in terms of carbon, underlines the extent to which waste contributes to our emissions. Add to that, the impact of methane leaching from the decomposition of organic material which releases approximately 22 per cent of the UK’s methane emissions and it is obvious why no serious policy to combat climate change can avoid the problem of the way we use and discard material resources.

However, the welcome and growing emphasis on the carbon agenda rather obscures another, vital, one: that of the resource use itself. We tend to worry about waste because of its impact on the immediate environment and the climate-changing emissions it produces in its manufacture and disposal, but far less about unsustainable resource use, which is less clearly defined but just as real. Global consumption of resources is currently beyond ecological limits, and as the developing world starts consuming and disposing at rates approaching our own, the problem is only going to get more serious. Several authoritative assessments have pointed to the dire state of natural resource depletion and degradation: the UN’s *Millennium Ecosystem Assessment* found that 60 per cent of the world’s ecosystem services are already degraded. Species extinction is now 100 to 1000 times the normal background rate. Rapid industrialisation in countries like China is already causing market scarcities for some types of material such as copper and wood; again, this is only going to get worse.

Finding things to do with our waste other than put it in landfill to meet a European Directive is not good enough. Like with many other environmental problems, an ‘end of pipe’ solution is no longer sufficient, and we have to look upstream, to what our waste was before we called it that. And that means looking at products – how they are designed, made, used, and disposed of.

6.1.2. Towards a zero waste economy

The concept of **zero waste** embodies the shift in mindset that we need to make – that is away from least-cost compliance with EU Directives and towards a focus on managing our resources as an asset rather than something to get rid of as cheaply as possible. This means focusing our efforts on preventing waste in the first place: through reducing packaging and tackling poor product design that manifests itself in short life-spans, built-in obsolescence and a lack of recyclability. It involves rethinking our powerful consumer culture that means, for example, that we have come to expect to own a new mobile phone every year. Zero waste gets to the heart of what kind of society we actually want to be. Above all it is important to understand that zero waste is not about gloom and doom – it is an opportunity as well as a threat that represents huge opportunities for the UK to be at the forefront of the next industrial revolution.

6.1.3. What does zero waste mean in practice?

Zero waste is the expression of the desire to move away from the linear model of resource use, where resources are extracted, turned into products, consumed and discarded into a more cyclical model where various instruments are in place to prevent waste in the first place and to maximise recycling. It is an ambitious, aspirational agenda that is sometimes all too easily dismissed as too idealistic and unachievable. But it is exactly this aspiration that makes it so powerful – recognition of the fundamental problem of our current rates of resource use and a desire to do better.

Zero waste is also a concept that is good for business. A number of large companies are already demonstrating that taking a more far-sighted approach to their resource-use is good for the bottom line and good for their relationship with their customers. For example, both Asda and Wates Construction have zero waste policies; both companies are aiming to eliminate waste sent to landfill by 2010. Interface, a global carpet manufacturer and supplier, has a ‘re-entry’ scheme that reuses, recovers or recycles any old carpet they collect, even if it belongs to a competitor. Leading edge businesses do this because they recognise that recent rapid expansion in global demand against finite supply will result in higher cost and reduced competitiveness.

Reuse of waste to make waste a resource is fundamental to the concept of zero waste. Reuse prevents wastage of valuable items such as building materials, clothing, furniture, white goods, and computers and it helps to reduce the demands on new natural resources.

However, resource management is not just – or even primarily – about recycling and reusing materials which have previously been manufactured and entered the waste stream. It is about smarter manufacturing, cleverer distribution, the use of renewable and biodegradable materials, and the minimization of packaging. This realisation is part of the motivation for the Packaging Waste Directive, pioneered by the UK, the End of Life Vehicles Directive, and the WEEE Directive – all of which create pressure directly on manufacturers to change their resource use without reducing the attractiveness and efficiency of their product. Building consumer goods that last and are capable of being repaired; designing out obsolescence; changing behaviour to such an extent that the throwaway society becomes a conservation society – these are the fundamental challenges to our wasteful ways. The efficient use of raw materials is the first priority in any sustainable waste policy.

Recycling is the second priority. Fortunately, the concept has come of age, with local, national, and international trading in recovered materials which can be used again as raw materials for new products. So-called secondary raw materials are now big business and increasingly fuel the manufacturing might of China. The economics of recycling are clear (WRAP Statistics 2006). To meet Landfill and other European Directive objectives and play its part in the mix of waste treatment options available, it is estimated that recycling and composting of municipal waste will need to treble from current levels to c22 million tonnes a year by 2020. The value of this material has been estimated at c£590 million a year, so the efficient achievement of this aim represents a major economic, as well as environmental, opportunity for the UK.

This domestic assessment is paralleled in commercial and industrial waste – which will produce an estimated 35 million tonnes of material a year by 2020, with a projected value of £520 million a year. In the construction and demolition sectors we shall need to use at least an estimated 88million tonnes a year by 2020, with a projected value of £700 million a year.

So across the sectors, by 2020 we should be recycling and composting something like 145 million tonnes of wastes, with a total market value of £1.8 billion a year. Recycling of this material can contribute a greenhouse gas saving of at least 22.5 million tonnes annually from a whole range of materials including paper and card, plastics, metal, and glass packaging. **The stakes are high – the opportunities huge.**

But time is running out:

- We need real **behavioural change** which will affect everyone – householders, businesses, the construction industry, manufacturers, agriculture. It must become axiomatic that we produce less waste, recycle and re-use the valuable components of the waste we do produce, and manage better the residuum left for disposal.
- We need **structural change** to encourage urgent investment in new plant and technology, to collect, sort, reprocess and remanufacture recyclable materials and to otherwise accommodate wastes which were previously landfilled.
- We need **organisational change** to achieve more efficient and user-friendly household collection systems; better regulation and cohesion between national standards and local practice; and enhanced producer responsibility to lessen the environmental impact of manufactured goods.

Section 6.2. Product Policy and Producer Responsibility

At the heart of a zero waste economy is a set of measures known collectively as ‘producer responsibility’. In theory, producer responsibility means a reduction in the environmental impact of products as producers change product design, substitute materials, extend product life and undertake other measures to reduce the environmental impact of their products. In practice, the emphasis to date has been very much on the ‘end of life’, i.e. the collection, management and recycling of waste. This means that producer responsibility has been fairly successful in increasing the collection and recycling of materials but has been much less successful at altering the nature of products from the point of design so that they have less impact throughout their life and are easier to recycle. Furthermore, it has not been successful in ensuring appropriate funds are apportioned back to those left to deal with the waste product, in many cases the local authority.

One of the reasons why our economy has evolved in the linear way it has is that there is no connection between responsibility for managing products at the end of their lives and those individuals and companies that manufactured them in the first place. Ultimately this responsibility linkage needs to be established and inevitably that carries with it financial liabilities which, de facto, become translated back into the purchase price of the product in much the same way as other costs of manufacture.

Clearly this is not possible with all products (for example, waste food) but in others it most definitely can be (packaging, batteries, cars and the like). Abstracting and reallocating these costs in such a regime after 200 years of not recognising that liability is, however, a major challenge to established business supply chains – with consequent risks to price stability, commercial viability and customer perception. There is no reason why overall costs should rise – indeed there are clear opportunities for transferring costs from local government back onto product supply chains, for instance – but measurement systems, methods and principles of implementation need to be coordinated, consistent and transparent. Over the last 20 years, the UK has not been successful in achieving those simple objectives.

We believe that producer responsibility should be about more than making sure that the private sector picks up the tab for the environmental impacts of their products.

We need better producer responsibility policies that will actually change the nature of products. This is not a new idea, but it has rarely worked well in practice. Poor implementation, a lack of market development and diluted incentives have meant that a number of initiatives have had very limited success. For example, the ‘essential requirements’ of the Packaging and Packaging Waste Directive 1994 shifted the onus to producers to establish what the environmental impacts of their products were, and then take steps to address them. This was a potentially groundbreaking step – but compliance with the essential requirements was not subject to monitoring and enforcement has been the job of often under-resourced local authority trading standards officers. At the same time, the emphasis on lightweighting of packaging has had the effect of making packaging more difficult and less economic to recycle.

Furthermore, because the current scope of producer responsibility is based on specific product categories (EU Directives also cover waste electrical and electronic equipment, end-of-life vehicles, and batteries), it represents only 16% of total controlled waste generated.

Recommendations

Regulation and oversight of resource and waste issues is muddled. The duties of the Environment Agency, local government, government departments, government agencies, and the industry itself, overlap. Lines of responsibility are confused. We need a national strategic body which will produce clarity, while reducing bureaucracy.

We therefore propose the establishment of a National Resources Trust²⁴⁵ (NRT) within the new Department for Sustainable Growth proposed in this Report. The NRT would be charged with establishing a detailed programme to extend producer responsibility legislation to cover a much more significant proportion of the household, commercial and industrial waste streams. Where legislation already exists it would ensure a tougher and better co-ordinated approach. For packaging, for example, the NRT would develop a dramatically enhanced programme for the promotion and enforcement of the existing essential requirements regulations, and help trading standards officers to tackle bad packaging.

Producer responsibility should be extended throughout the material economy

Alongside existing measures covering packaging, electrical and electronic equipment, vehicles and batteries, candidates for producer responsibility measures include pharmaceuticals, paints, construction and demolition waste, nappies, food, furniture, carpets and textiles. The objective is to incorporate all waste streams. Priority products would be those classified as hazardous wastes since they are often manufactured within consolidated supply and retail distribution channels and are already easily distinguishable. The environmental benefit in terms of product redesign in hazardous wastes is also more obvious to the consumer.

Sectoral targets for resource use

These targets would initially be agreements negotiated between government and industry but backed up by the threat of statutory targets if little progress was made against a firm timetable. Voluntary compliance from industry would be rewarded with exemptions from a more prescriptive regulatory regime. Giving lighter obligations to those who were first to take serious action if statutory targets were brought in would discourage free riders.

Product levies and deposit refund systems

A number of countries, including Finland, Denmark, Germany and Italy, have introduced a charge on environmentally damaging products such as non-rechargeable batteries or non-refillable or non-recyclable drinks packaging. In most cases the charge is used to fund collection and recycling schemes, but in some cases the charge is levied explicitly to shift consumer behaviour from these products towards better alternatives – for example, better types of packaging. It could also be used to discourage one-time use, disposable products that currently can't be recycled. Other countries such as the US have made good use of deposit – refund systems for some types of drinks packaging e.g. glass and PET bottles. Such a system could be a popular way of encouraging the public to recycle outside the home where recycling systems are currently few and far between.

²⁴⁵ Further information on National Resources Trust can be found in Appendix 6.1

What could all this mean...

...for packaging?

- You pay a 20 pence deposit for a drinks bottle that is refunded to you when you return it to a reverse-vending machine in your high street.
- You bring home far less food packaging from your weekly supermarket shop as manufacturers are driven to reduce unnecessary packaging – and the packaging you do have is recyclable or compostable.
- You're encouraged to use refillable packaging in the shop and given a discount when you bring back containers to be refilled.
- Compostable packaging could be exempt from any take back liability as a cost incentive to manufacturers.

...for electric and electronic equipment?

- If you buy a piece of equipment whose components are not repairable or upgradeable, it will be subject to a tax at the point of purchase to persuade you to consider a more durable alternative. Certain products that are designed for short lives would also attract a point of sale tax.
- When for example, your fridge is finally broken beyond repair it is collected by the manufacturers without charge; the reusable components go back into the manufacturing process and the rest of the fridge is recycled.

Further details on extended producer responsibility are referenced in Appendix 6.2.

Section 6.3. Procurement

One of the results of the recent surge in recycling has been the creation of new industries and the adaptation of old ones. For example, all newsprint manufactured in the UK now is made from recycled fibre – old newspapers and magazines. The factories which make this paper underwent massive re-tooling involving investment of many millions of pounds to achieve this. The same principle applies to makers of office and writing paper, tissue papers, glass containers and bottles, plastic packaging containers, and many other products. Much of this re-tooling has been driven by the opportunity for saving money – it is cheaper to make a bottle out of recycled cullet than out of virgin materials because the energy costs are lower. But in order to encourage this market, and find uses for the recycled materials, industry must have confidence that if it does re-tool, the demand for products manufactured from recycled material will be there. In part extended producer responsibility will reinforce and enhance this.

Creating the “pull” for resource efficient products is something the Government and the wider public sector can and should influence, and much stronger government policy and commitment is needed to this effect. More than £125 billion is spent by the public sector in the UK each year. This money can act as a catalyst for the development of sustainable markets for recycled material and closed loop systems, from central government through to parish councils, through conditioning supply chains and making it clear to industry which products and materials will be part of a zero waste future and crucially, which will not be. Furthermore, public sector procurement can foster innovation by creating demand for products not yet on the market, by specifying both their desirability and the fact that there will be a ready market for them should they be developed.

Many of the emerging markets for recyclable materials are fragile and some are even in decline. Public spending should drive the development of markets for recycled – and recyclable – materials that result in reduced impact and contribute to a low-carbon, zero waste economy, driving wider environmental improvements and behaviour. The government should also be an exemplar purchaser for its policies on resources and energy to have real credibility.

Recommendations

- The National Resources Trust should produce a Sustainable Procurement Standard for all public bodies – government departments, local authorities, health authorities, Police and Fire Services – to ensure that they procure supplies with maximum recycled content, greater recyclability and longer life, as part of their statutory requirement to reduce their ecological footprint.
- All public bodies including Government Departments, agencies and local authorities would be required to produce a comprehensive and thorough procurement plan to incorporate environmental and resource efficiency standards. This must be compiled against the standard developed by the NRT and it must include specific and measurable plans to implement the standards. Priority Departments might be health and the schools new start programme.
- The NRT would publish an annual report on how successfully this Sustainable Procurement Standard was being implemented in the public sector, by Ministry, spend and assessment of carbon avoided.
- The onus on public procurement bodies could be to concentrate on fitness for purpose specifications and to undertake a comprehensive review where any public contract specifications specifically refer to virgin inputs.

Section 6.4. Paying the Piper

Household waste collection has to be paid for. If consumer behaviour is to be changed, there has to be a transparent linkage between waste disposal and its cost. If we, the customers, are to press supermarkets and mail order companies for less packaging and ourselves to limit our personal production of waste wherever that is practical, we need the discipline of the market place. This becomes even more important as the necessary initial investment to meet proper environmental demands drives up overall costs. If communities are to support better recycling initiatives and to demand systems which encourage greater levels of householder participation there has to be a financial driver. Even more is that true if we want to maximise material capture in the most cost effective way. Yet, there are real questions of health and social justice that cannot be baulked by Conservatives.

In order that we can bring about appropriate change without losing sight of the important social dimension **we propose:**

- That council tax bills should show separately the amount charged for the totality of waste services – collection, bring sites, recycling, and disposal. People will then know precisely how much they are paying for the service.
- That discounts are offered to encourage recycling. The dynamic effect of **not** paying a tax is well documented.
- Set a reasonably generous limit by weight or container for residual waste which would be collected within the standard charge and then allow discounts for households which produced less. Technology allows allocation according to postcode areas, council tax band, or levels of occupancy, so this could be well directed. Indeed, it would enable the incentive to be directed at the community (particularly in areas of high density housing) and applied to the provision of equipment for a local school, park, or sports facility, where peer pressure would be increasingly effective and local communities would be encouraged to lead local campaigns.
- The Municipal WasteDataFlow system needs to be updated and include publicly accessible comparator data for like for like types of authority on a wide ranging series of matrices covering cost as well as operational efficiency. This would contribute significantly to the education and awareness objectives identified later on in this Report.

Section 6.5. Making Sense of the Muddle at a Local Level

Waste is a local phenomenon and getting the local structure right is a crucial first step. So we start with the customer.

Most of us relate only marginally to waste disposal – at work or in the street. It is at home that the relationship can become much more obvious. It's with the bin men that most people start. And it's here too that the confusion starts. Once local councils seek to move away from traditional systems into kerbside collection with some element of sorting, problems arise. The need to recycle complicates matters and, as a result, the public are confused. There is plenty of evidence that most householders want to recycle and for many it is the key environmental behaviour change. This is important because it has the potential for leading them on to other environmental behaviour changes. Recycling makes people feel good – feel they are doing their bit. Sadly, many local authorities have systems which are far from user-friendly and are not tailored to the local housing stock or population profile. Conversely, although the *systems* need local tailoring, the principles need to be universally understood. Anyone who deals with two local authorities knows how unhelpful it is to find that their definition of what can be recycled may be different. What goes in which container needs to become second nature to the customer and not something that requires reference to a list posted on the kitchen door.

If it is confusing to the customer, it is very expensive too. Adjacent authorities with different criteria, often cannot deliver waste in sufficient bulk or to a sufficiently consistent specification to get the best price. If they could only act jointly they could overcome many of these problems of scale. This dysfunction has often arisen by accident but sometimes it is the 'not invented here' syndrome that has made co-operation between authorities impossible.

And that lack of joined-up thinking spreads far wider. Waste is local and yet the rigid demarcation that is too often found between the domestic waste stream and commercial and industrial waste means that in many localities, neither side gets the best return out of their waste, simply because they proceed in an unconnected way. Whilst local authorities deal with household waste, this is only 8% of the total waste arising. Much commercial waste (restaurants, small businesses, etc) is very similar in composition to domestic waste, yet recycling is much patchier. Opportunities for economies of scale and joint use of facilities are lost because business and industry deal with their waste quite separately from the municipal sector. This has a big impact on other related environmental issues in general and unnecessary traffic movements in particular. Regulations coming in in October 2007 relating to the 'pre-treatment' of waste will, it is to be hoped, make some improvements in this regard.

This dysfunction is seen most clearly in the way county councils and unitary authorities exercise their statutory responsibilities as the Waste Planning Authority. They have a duty under PPS 10 to develop waste disposal plans which take into account waste generated from the municipal, commercial, industrial, construction, and agricultural sectors. In developing these plans, county councils and unitaries must take into account national and regional objectives and any underlying European proposals. Yet, in the case of county councils, when they draw up these plans they are responsible for *delivering* only the municipal waste element. Indeed, there are statutory drivers which prevent waste disposal authorities from engaging in participative arrangements with the commercial, industrial or agricultural sectors because of the undue influence these tonnages would have on LATS calculations. This means there is a disincentive to collect commercial waste. (See Appendix 6.3 for further explanation of LATS calculations.)

This approach is now out of date and results in a structure that is not fit for purpose. The county waste strategy is not a matter for the county council alone. There is a necessity for a much wider participation if we are to get the strategic investment in new processing and disposal infrastructure which we need. That co-operation would reduce financial and operational risks and optimise the

recovery and processing of commercial and agricultural wastes. The resulting overall environmental benefits cannot be obtained under the present system. We need, therefore, to provide a way of organising these operations which does not impose the dead hand of bureaucracy nor extend municipalisation but engages the public and private sector to their mutual advantage.

Recommendations

- Local authorities should be encouraged to work together to gain improved economies of scale and clarity of service delivery, guided by the NRT. The pathfinder programmes now being trialled under which the county and districts work together to take costs out of the system would provide an ideal basis for this. This is already happening in some areas as a result of NAO studies (witness the decision by Somerset to form a Single Waste Authority) but needs to become the norm.
- Local authorities should be charged with facilitating the cost-effective collection and recycling of all waste within their areas. It would be rare that they themselves would do the job but by facilitation they would ensure that it were done as cost effectively as possible. To that end they should:
 - look to opportunities for joint collection of municipal and commercial, industrial, and agricultural wastes; and
 - consider if county wide collection or collection in areas that did not coincide with district boundaries would be more appropriate. Thus, in a town whose local government boundaries did not extend over the whole built up area, they might commission collection in such a way that it covered the whole conurbation. Elsewhere, it might be appropriate for a large parish to be responsible for the collection.
- Local authority groupings should be encouraged to optimise performance through designing waste systems which are integrated with recovery, processing, and disposal infrastructure.
- Local authorities should be encouraged to seek uniformity of recycling principles over a wide area, design systems that would optimise results by paying attention to housing type and demographic profiles rather than political boundaries.
- Local authorities should be charged with reducing waste miles and with designing systems that take advantage of local sorting, recycling, composting, and disposal.
- Local authorities should seek opportunities for linking waste management to carbon reduction programmes and biofuel and bio crop recovery, and to facilitate schemes for reuse of clothes, furniture, and electrical goods, both voluntary and commercial.
- Local authorities should be charged with the effective implementation of the regulations on fly-tipping, using, as appropriate, Trading Standards departments, district or even parish councils as their agents.
- Investment needs to be encouraged in information technology and material flow tracking in the form of Municipal WasteDataFlow as without data there is no sound policy or assessment of policy successes.

Section 6.6. Providing the Expertise

The localism agenda demands that the local authorities should be as independent as possible. But there is a need to provide them with expertise and advice on best practice from other local authorities and other parts of the world. We therefore propose that the National Resources Trust should carry out this function. Its role is crucial in the avoidance of duplication, the dissemination of good practice and innovative ideas, and in understanding waste as a resource. The drivers must, however, be local. The National Resources Trust should be the adviser of local authorities, not their master. Drawing always on the experience of the most effective local authorities, it would:

- advise government on waste strategy;
- advise local authorities on waste strategies and plans;
- at the behest of the local authorities, propose necessary legislative or regulatory changes; and
- issue guidance to local authorities on collection of green garden waste within household waste collection schemes.

Section 6.7. Zero Waste to Landfill: Getting There

6.7.1. Zero waste to landfill – the history

Landfill in the United Kingdom has historically been both convenient and plentiful. Measures to reduce our reliance on holes in the ground have to date focused on reducing the production of methane, a potent greenhouse gas, rather than any real concern with resource use per se. This has to change.

Recycling targets imposed upon local authorities by government have been successful in achieving roughly 27% diversion and the figure is rising, but the fact that the targets have been expressed in percentages of waste arisings by weight has had unintended consequences. It has led local authorities to concentrate on collecting heavy materials such as glass, with a relatively low recyclable value, and green garden waste for which the most sensible and environmentally responsible disposal route is home composting.

Thus weight-based targets, whilst generating a good deal of recycling activity, have not achieved one of the essential goals which is to reduce biodegradable waste to landfill and thus cut methane emissions to air. Nor have they prevented the landfilling of valuable materials which are eminently recyclable and on which considerable energy has been expended during manufacture.

6.7.2. Stopping the landfilling of recyclable materials

A phased introduction of a ban on the landfilling of recyclable and compostable materials (municipal, commercial, industrial and agricultural wastes) would send a clear signal to industry that landfilling recyclable materials will not be considered acceptable in the future. Such a ban would be introduced in stages, starting with the materials which can be recycled easily and with greatest environmental gain, for example, aluminium. Aluminium recycling uses only 5% of the energy needed for primary production and, as it can be recycled time and again without loss of quality, it makes no environmental sense to continue to allow aluminium to be landfilled. Nonetheless, currently, only 42% of aluminium cans are recycled in the UK. A ban on aluminium products (where a significant proportion of the product was made of this material) going to landfill could be phased in by 2010.

By 2015, there could and should be a ban on the landfilling of all biodegradable materials – paper, cardboard and organic wastes, such as food waste, – which produce methane. Although they are already being targeted under the LATS scheme, the impact of reduction will be gradual and concentrated only on municipally sourced material rather than ensuring equal treatment of material from commercial sources.

A ban could and should be imposed by 2012 on the incineration of any untreated biodegradable waste (i.e. waste which has not passed through a pre-treatment process). Further details on Landfill bans are explained in Appendix 6.4.

Over a period of some 20 years, we should move to a situation where all materials which could be recycled or composted would be banned from landfill and all recyclable materials would be banned from incineration. Thus we would close the loop and ensure we redesign waste as a resource.

Green garden waste should be removed from the computation of recycling targets, as its collection merely adds to the total amount of waste that is collected by local authorities with the single purpose of adding to recycling to meet targets. Taking this out of the equation would mean local authorities and contractors would instead invest in collection, processing and treatment facilities for increased amounts of dry recyclables such as packaging and food waste. Under existing legislation councils are

able to ban green garden waste from domestic dustbins, and are able to levy a charge for its collection. This legislation should be used properly.

6.7.3. Changing the economics of waste disposal

In spite of recent and proposed increases in the tax, landfill is still an inexpensive option for waste disposal. As long as relatively cheap landfill is available, industry is reluctant to invest in alternative disposal capacity and local authorities are slow to commit to new contracts. The landfill tax was introduced by the Conservatives as an environmental tax with the intention that 15% of it would be returned for local environmental and community gain. But this has been eroded by the Treasury, so that now a much smaller fraction of the original landfill tax is used for environmental purposes and none of the increases are devoted to such local initiatives. The advantage of the original proposition was that it put the decisions on spending into local hands under the light regulatory regime of local trusts. The nationalisation of the system by Mr. Brown has meant that a very important part of the basis for acceptance of landfill costs has been removed.

Recommendations

- Landfill tax should be increased to £80 per tonne by 2015, increasing at the rate of £5 a year thereafter; to be reviewed regularly by the National Resources Trust to make sure that the right signals are given to industry. Except to the extent of any increase in the amount available for local environmental and community gain, this would be a replacement tax and, as with all green taxes, revenues should be used to reduce other taxes;
- A ban should be established by 2012 on the incineration of any untreated biodegradable and recyclable waste (i.e. waste which has not passed through a pre-treatment process);
- A ban should be established on the landfilling of all biodegradable materials by 2015 – paper, cardboard and organic wastes, such as food waste, – which produce methane; and
- The landfill tax should revert to the structure originally introduced by the Conservative government, giving very wide local discretion as to how a proportion of the money raised through the tax should be spent – another example of the Conservative localist agenda, guaranteeing that local communities which host waste management infrastructure will benefit.

6.7.4. Planning for landfill alternatives

We recognise that there is a huge backlog in providing the necessary waste infrastructure to deliver a goal of ‘zero waste’. To deal with this backlog, the planning regime should be adjusted to favour small, flexible and selective schemes rather than large, inflexible and mass-burn schemes.

Recommendations

- a sliding scale of statutory determination periods from submission of planning application which reflect the complexity of the application. Currently, statutory periods are the same for a small scale green waste composting plant as a major waste treatment facility. This means that the statutory periods are largely ignored;
- the right to appeal for non-determination. If an application is not considered within the statutory period, the applicant has the right to appeal for non-determination to the planning inspectorate. The consequences of non-determination need to be significantly less attractive for the local authority than making the difficult decisions;
- a reduction in the lead time for consideration of non-determined applications by the planning inspectorate with priority over appeals against refusal by local authorities;
- statutory periods for appeals against refusal – the planning inspectorate has recently had a lead time of circa 12 months. Time limits also need to be set for the issuing of decisions following the consideration of the appeal as well; and
- local public referendums as an acceptable means of gauging public opinion in presenting community views where incinerators are being proposed.

Further background information is provided in Appendix 6.5.

Section 6.8. Support for Waste Treatment Technologies

It is widely accepted that minimising residual waste through prevention, reuse and recycling is crucial. It is also accepted that, at least in the short term, there will be residual waste that will have to be disposed of in some way.

We have argued elsewhere that the recent government waste strategy should have set far more ambitious recycling targets to drive innovation in the waste and recycling sector. These targets should be aspirational and based on research into what it is physically possible to recycle. We then need a mechanism to ensure that this is what actually happens in practice. As the landfill tax increases, we need to ensure that waste is not just diverted to the next cheapest or easiest option in the waste hierarchy. An incineration tax would ensure that the relative cost of recycling reflects its environmental desirability.

Where recycling is genuinely not an option, we should seek to encourage new technologies which can treat the remainder. Our concern for these wastes is that energy in them should be captured and that their ultimate disposal should cause no harm to the environment. However, there are a number of pre-conditions to our support for energy-from-waste (EFW) to treat residual waste: firstly, we recognise that the term ‘energy-from-waste’ is a catch-all term for a range of very different technologies. Some, such as anaerobic digestion, can be small-scale and flexible technologies that have proven carbon benefits, whereas others may be large and inflexible technologies that are very inefficient at producing energy. Secondly, we recognise the danger of ‘lock-in’ to large EFW plants that comes with long-term contracts, creating a situation where *marginal* costs of disposal fall to zero, reducing incentives to increase recycling rates.

We recognise the place of refuse derived fuel as a source of energy and accept that, where maximum recycling and removal of recyclable wastes has been carried out, the combustion of RDF in processes where the RDF genuinely displaces fossil fuels, can deliver environmental benefits. Mass-burn incineration with energy and heat recovery can also be an acceptable means of disposal as long as the efficiency of energy generation is sufficiently high.

Incineration with power generation but without heat recovery should not be considered (see further position statement on waste treatment in Appendix 6.6):

- Exposing incineration which fails to meet the proposed EU efficiency threshold for recovery (i.e. incineration without combined heat recovery and power generation) to a disposal tax or an expanded emissions trading scheme will ensure carbon emissions are offset. Emissions could be offset through the identification and co-location of a heat user on an existing or planned site, by generating carbon credits through other activities incorporated into a revised emissions trading scheme or via the purchase of carbon credits on the open market.
- Facilities that meet the EU’s proposed threshold of 0.65 (using their calculations – see Appendix 6.6) but fail to meet a threshold of 0.70 using the same calculations should be exposed to a lower rate of tax
- This will drive planning and investment in heat recovery, which is essential to ensure good use is made of those materials that cannot be recycled and offer the potential to generate power and heat.

Incineration should always be subject to the following tests:

- The method of incineration must not crowd out waste prevention or recycling, so capacity must be made available only for non-recyclable materials;

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- There must be efficient energy recovery of at least 0.65% and preferably 0.70 using the EU's proposed efficiency threshold calculations;
 - Facilities must meet tough emissions standards and monitoring of emissions must be transparent with results publicly available; and
 - Implementing these facilities must always be carried out in partnership with the local community.

Section 6.9. Conclusions

Waste management has a silent impact. It is a service which is carried out day after day, for householders, for industry, for commerce. Most people do not think about it – until something goes wrong.

We can all remember the sacks of rubbish piled in the streets during the ‘winter of discontent’. The rats. The smells.

But resource management is a fundamental requirement for human existence. The balance needs redressing.

Zero waste is a goal – an aspiration, something to aim for. It will not be easy, and we will all need to take bold steps and to accept change.

But the zero waste economy presents a major opportunity. Some of Britain’s leading companies have already recognised this. Entrepreneurs – in the best run private companies and public services alike – will rise to the challenge.

Extended producer responsibility is central to our proposals. Changing the way we view – and value – resources together with using less of them in the first place are critical in the battle against climate change.

Banning recyclables from landfill and increasing the landfill tax in real terms to match the rates in leading EU countries sends the right signal – landfilling perfectly good resources is, literally, a waste and is no longer acceptable.

The disposable days are over.