



**Friends of
the Earth**

Consultation on the Review of Waste Strategy 2000

Response from Friends of the
Earth

May 2006

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Friends of the Earth inspires solutions to environmental problems, which make life better for people

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- the UK's most influential national environmental campaigning organisation
- the most extensive environmental network in the world, with around 1 million supporters across five continents, and more than 70 national organisations worldwide
- a unique network of campaigning local groups, working in more than 200 communities throughout England, Wales and Northern Ireland
- dependent on individuals for over 90 per cent of its income.

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Introduction

Question 1: Please state your views on the overall approach for the revised strategy set out in this document and any other points you wish to make. (You may like to respond to this question once you have considered the rest of the document and the other questions.)

Friends of the Earth welcomes this opportunity to comment on the Government's waste strategy for England.

We welcome the progress that has been made over the last few years in increasing recycling rates in England (and the rest of the UK). Waste management in the UK has been a national embarrassment for too long, and it is time we caught up with our European neighbours. We are proud of the role we have played in this improvement, for example through our work getting the Doorstep Recycling Act onto the statute book.

Improving the way we deal with waste is a vital part of making this country more sustainable, reducing our impacts on climate change and maximising the efficiency with which we use resources.

We would like to make the following key points regarding this consultation

- **We consider that waste policy should be aiming towards two overarching goals:**
 - **the phase-out of residual waste, waste that is not reused, recycled or composted.**
 - **waste prevention**
- **In order to promote waste prevention, we believe that the government should adopt waste prevention targets:**
 - **Zero growth of all waste by 2010 and by 2008 the Government should identify a waste prevention target for all waste for 2020**
 - **Reduce municipal waste by 1.5 per cent per year**
- **Whilst we welcome the measures the government has already put in place to encourage recycling, we see little new in this document. The higher recycling targets are based on 'no policy change', rather than a real effort to recycle as much as possible. Yet at the same time, the Government's own research shows that a higher recycling rate would be more environmentally beneficial. In our view we should be aiming to recycle or compost at least 75 per cent of waste by 2015.**
- **The Government displays a touching faith in voluntary initiatives, which is not backed up by any evidence base. Environmental improvements over the last few decades have been led by improvements in regulation. Yet this consultation makes clear that it is not proposing any new regulation on business. Friends of the Earth believes that this is a mistake, and that regulation and fiscal measures will be the most effective methods of driving improvement in the environmental performance of business.**
- **We find it hard to understand why the Government is not promoting the 100 per cent renewable energy that can be obtained from source-separated anaerobic digestion. Instead, the government seems to be more interested in promoting the worst available technology, mass burn incineration, despite its negative climate impacts.**
- **Additional regulations are required in order to address the current unsustainable situation, including:**
 - **A phased introduction of ban on landfilling or incineration of recyclable or compostable material**
 - **Additional producer responsibility legislation, including a move towards use of recyclable and compostable materials**

CHAPTER 2 – A NEW VISION

Recycling and recovery targets

Question 2: What are your views on proposed national household recycling and composting targets and the level they should be set at?

Friends of the Earth welcomes the fact that the Government is proposing higher recycling targets than in WS 2000. It is also very important to have a statutory target for recycling and composting. The 25 per cent target by 2005 was statutory and became part of DEFRA's Public Service agreement, which meant that work programmes were put in place to meet it. We would therefore hope to see that the recycling/composting target adopted is also statutory as this has driven real improvements in recycling. The proportion of household waste recycled in England has increased from 11.2 per cent in 2000/01 to around 23 per cent in 2004/05.

However Friends of the Earth believes that the targets proposed are not ambitious enough and a higher target should be adopted. Many organisations besides Friends of the Earth are calling on the Government to set higher recycling targets. Many experts believe that the current longer-term targets fail to build on the significant efforts that have been made so far. If these targets are not increased, the drive for recycling could lose momentum.

The House of Commons Environment, Food and Rural Affairs (EFRA) Committee has been particularly critical of the targets for England for 2010 and 2015 describing them as “depressingly unambitious”. It has recommended that the Government sets new targets of 50 per cent by 2010 and 60 per cent by 2015, and this was back in 2002 [1]. Ben Bradshaw, the Minister in charge of waste policy, has said 60 per cent is possible [2], yet the highest target proposed in the consultation is 50 per cent by 2020. Even the Environmental Report which accompanied the government consultation document [3] identified that a 60 per cent recycling rate for municipal solid waste (MSW) would lead to increased climate benefits compared to the proposed 50 per cent target by 2020. There is no explanation in the document why a higher target was not adopted if it would bring greater environmental benefits.

The partial Regulatory Impact Assessment (pRIA) seems to suggest that a higher target was not proposed as the costs would outweigh the benefits [4]. However, the pRIA does state that non-climate costs, such as resource utilisation and non-greenhouse gas impacts of materials production and consumption, have not been included. If these costs had been included it is therefore likely that the benefits of higher recycling would far outweigh the costs. The pRIA also states that conclusions should not be drawn from just the monetary analysis. However, as there is no detailed explanation as to why certain targets were chosen over others it is therefore unclear why a better environmental option has not been chosen.

Friends of the Earth wants to see a target of 50 per cent by 2010 and an aspirational target of 75 per cent by 2015 adopted.

Is 50 per cent possible by 2010?

Currently England has a household recycling rate of around 23 per cent (figure for 2004/05) but this is expected to reach 25 per cent by 2005/06. Could England therefore increase its recycling rate by 25 per cent in 5 years?

Experience from other European countries has shown that recycling rates can increase from a low base to about 50 per cent over a short time period [5]. The Netherlands increased municipal waste recycling from 16 to 42 per cent between 1990 and 1995. But the most impressive example of reaching a high recycling rate in a short time has occurred in Flanders. Here, the recycling rate for municipal waste rose from 21 per cent to 62 per cent in 9 years and by 2004 it had reached 71 per cent [6].

The 2004/05 household waste recycling and composting data for England shows that some local authorities are already achieving rates of 40 per cent and above and are able to make large improvements in recycling rates within a short time [7]. Yet the proposals here say we shall increase from 23 per cent to only 50 per cent in 14 years. The evidence suggests that there does not need to be a

plateau in improvement in national recycling rates in England in the foreseeable future. Other countries have shown what can be achieved and we need to aim high in our own targets.

Research carried out for the Community Recycling Network has shown that by extending current good practice we could achieve a recycling rate of 27-36 per cent in England. This level could be reached without making major policy changes and takes account of current variation in levels of performance.⁸ To achieve a national recycling rate of 27-36 per cent we will need:

- weekly multi-material kerbside recycling collections throughout the country or fortnightly alternating with residual waste;
- good practice facilities for recycling and composting at all civic amenity sites;
- separation of garden waste, where it is collected, for composting rather than it being accepted with refuse for disposal.

This research would suggest that good practice guidance from DEFRA for local authorities on recycling collections and composting would be an invaluable tool to ensure that recycling rates continue to increase. The only good practice guidance that we are aware of is a publication written by Friends of the Earth – *“Doorstep recycling - A good practice code and local authority case studies”* [9].

But to reach the higher rates of recycling proposed by Friends of the Earth it will be necessary to adopt a package of policy measures such as:

- speed up the increase in landfill tax, so that it reaches £35 per tonne more quickly;
- extend the landfill tax to cover other forms of residual treatment such as waste incineration;
- remove the economic incentives for incineration;
- allow councils to introduce variable charging schemes;
- ban the disposal to landfill of recyclable and compostable materials by 2010;
- implement a national waste prevention target;
- extend measures to make manufacturers responsible for minimising waste, reusing materials and recycling.

These issues are covered in our response.

Question 3: What are your views on setting municipal waste total recovery targets?

Municipal waste recovery targets are just a confusion. Currently, following the 2003 rulings of the European Court of Justice (ECJ), [10, 11] the incineration of waste is not defined as recovery, but disposal. However this has not stopped local authorities, the waste industry and regional assemblies referring to waste incineration as recovery. When talking about recovery, the Government needs to make a clear distinction as to whether it is referring to the legal definition (which obviously prevents the transportation of mixed waste abroad) or some general definition that covers processes that generate or save energy – e.g. recycling and composting.

Friends of the Earth does not agree with the setting of MSW total recovery targets. Unfortunately the setting of national recovery targets in WS2000 led to much confusion at the regional and local level. Often targets were set on the incorrect assumption that the national targets set in WS2000 should be transposed to a local level. The interpretation of this by local authorities in turn is that they should aim for recycling/composting to levels set in WS2000 targets, and make up any shortfall by waste incineration. And as stated above all this has been thrown into confusion by the recovery definitions in the Luxembourg decision.

Also why are DEFRA so willing to set a target for recovery but have not set any targets for processes higher up the hierarchy such as the re-use and the prevention of waste?

Landfill targets

Question 4: What are your views on proposed targets for the landfilling of commercial and industrial waste and the level they should be set at?

Surely the most important issue to address is that fact that we are still sending huge amounts of material for disposal that could be better recycled or composted. Friends of the Earth want to see recycling targets set for commercial and industrial (C&I) waste rather than a proposed target for landfilling. It needs to be ensured that the materials diverted are moving up the hierarchy as far as possible rather than just being diverted from landfill to waste incineration.

According to the Environment Agency's C&I survey currently about 40 per cent of C&I waste is recycled or reused [12]. The Environmental Report modelled a scenario when recycling rates (excluding reuse) of C&I waste reached 49 per cent by 2020. This scenario as mentioned (increased rates of recycling) performed much better environmentally than scenario 0 – the no change option which DEFRA is proposing to adopt. Friends of the Earth would therefore like to see high recycling targets proposed for C&I waste of 50 per cent by 2010 and 70 per cent by 2020.

However, even with high recycling rates, the growth in C&I waste is estimated to be over 50 per cent by 2020. This growth should be tackled and not just accepted. Therefore we want DEFRA to propose to halt the growth in C&I waste by 2010 (see response to question 10).

To ensure that C&I waste is diverted from landfill, which still remains the cheapest disposal option for this waste, DEFRA need to investigate a cap and trade system on landfill operators to drive C&I waste away from landfill. The Environment Agency has been working on this idea and we would like to see this explored.

However, we consider that additional measures will be necessary to maximise reuse, recycling and composting of commercial and industrial waste. In our view, the best way to ensure that this happens to the maximum is to phase in a ban on landfill and incineration of recyclable or compostable materials. This ban could be phased in by starting the ban with biodegradable waste, as it has most environmental impact, followed by easily recyclable material streams such as glass, metals and paper.

CHAPTER 3 – THE POLICY FRAMEWORK

The regulatory framework

Question 5: What further specific improvements, if any, would you like to see to the regulatory framework?

Friends of the Earth believes that there is a real need for further regulation in this area. The environmental problems of waste management have been well known for many decades, whilst the resource advantages of recycling and composting have been known for many years. In spite of these, we have seen no real move from industry to respond to these problems. The vast majority of goods are not designed for recycling, except where a regulatory provision is in place. Companies continue to launch new disposable products, and create new products with a worse environmental impact than those they replace.

Friends of the Earth has no problem with “better regulation”, as long as it is also better for the environment, people and sustainability. The consultation document talks about “simplifying the regulatory system”. Friends of the Earth has no objection to the removal of unnecessary complexity. However, a number of key tests must be met, including:

- 1) It must be clearly demonstrated in every case that this regulatory simplification does not lead to deregulation, and that levels of protection of people and the environment are maintained or preferably improved.
- 2) Public involvement in decision making must be maintained or improved.
- 3) The regulatory system must have sufficient monitoring, inspection and enforcement to ensure that the regulations are being applied.

4) There should always be an assessment as to whether there is a need for improved regulation in order to move the activity concerned to a more sustainable level. If so, then any simplification should be done in association with implementation of this improved regulation. Given that our society is not yet operating sustainably, we would argue that such improved regulation is going to be required in most cases.

Friends of the Earth would also like to point out that the vast majority of the improvements in UK environmental quality and performance have occurred as a result of regulatory and fiscal changes, not voluntary commitments.

It is also worth pointing out that the claim that environmental regulation impacts negatively on competitiveness is not well founded in evidence, in fact the opposite is more likely to be the case [13]. In reality, the Nordic countries are among the most competitive in the world, according to the World Economic Forum [14], yet they also have strong environmental regulatory systems. The Prague Statement by heads of European Environment Agencies has specifically spelt out the benefits of environmental regulation on competitiveness [15]:

“We conclude that there is now significant evidence from international research that good environmental management and regulation does not impede overall competitiveness and economic development. On the contrary, it can be beneficial by creating pressure that drives innovation and alerts business about resource inefficiencies and new opportunities.”

We believe that regulatory improvements should flow from an examination of how to achieve the overall objectives, including those spelt out in our answer to Question 1, in particular, achievement of a phase out of residual waste and ensuring that total waste volumes decrease. Such investigations should properly examine regulatory options, rather than falling for the temptation to remove such options from analysis. In order to achieve these objectives, a range of regulatory approaches will be required, including the following specific suggestions:

- Producer responsibility, as discussed in the next question
- Restrictions on landfilling and incineration of recyclable or compostable material
- Obligations to use easily-recyclable materials, e.g. packaging

In some cases it is likely that such regulations would be better put in place at EU level. In such cases, the UK Government should work within the EU to ensure that this happens. As a first step Government should be working to ensure that the revision of the waste directive puts in place appropriate measures, including an effective process that will really lead to waste prevention across Europe.

Producer responsibility and voluntary action

Question 6: What scope is there for extending the ‘stewardship’ or responsibility of producers and retailers for the impacts of the products they manufacture and sell, and which key products or sectors should be explored?

We believe that there is considerable scope to extend producer responsibility. This approach has a number of important benefits, including:

- Providing a funding stream for the end of life of the product, a funding stream that comes from those who make money out of producing or selling the product in question.
- Such an approach can include specific requirements on the recyclability of products, their recycled content, or restrict the use of certain hazardous chemicals, for example.
- If properly designed, producer responsibility can provide a motivation to encourage producers to design their products to be more environmentally friendly (e.g. more durable, reusable, recyclable or compostable).

We would suggest that particularly good sectors to be addressed by the producer responsibility approach, from a waste management point of view, include:

- Complex, hard to recycle products – e.g. toys, furniture, construction materials (e.g. windows), some packaging materials.
- Hazardous products – paint and other DIY materials, garden pesticides, pharmaceuticals, other household hazardous wastes.
- Hazardous and complex products – such as batteries
- Products which are difficult to recycle because of the difficulty of separating the variety materials used in similar products – e.g. packaging materials, textiles.

Question 7: What are your views on seeking voluntary agreements as an alternative to statutory approaches?

Friends of the Earth has been sceptical about voluntary agreements for many years; for example see our analysis, “*Superficial Attraction*”, published in 1995 [16], which concluded:

*“First, and most fundamentally, the voluntary approach has been shown to be **ineffective**. This is because the potential motivations for compliance are neither strong enough nor sufficiently widespread...*

*Second, the case studies expose the **undemocratic** nature of the voluntary approach pushed by the UK Government...*

*Third, the voluntary approach has been shown to **fail to stimulate innovation** and to tend to lock firms into existing, often short-term, solutions. In the context of increasingly complex and global environmental problems this is a vital shortcoming. No longer can environmental policy aim at best to disseminate best practice, it must also seek to facilitate the technological transformations that are needed in all key economic sectors.*

*These reasons lead to a fourth crucial problem with the voluntary approach - it **lacks public credibility**. At its most basic level environmental policy exists to protect the public interest. The case studies in this report show that, on this score, the voluntary approach pushed by the UK Government cannot deliver.”*

The eleven years that have passed since the publication of this report have not improved our view of the voluntary approach. Some additional problems include:

- As the world gets more globalised, it becomes even more complex to negotiate agreements that cover a full sector.
- Voluntary agreements are inherently unstable, as parties can leave them at any time, or new players may enter the market who are not committed to the agreement. In contrast, regulation sets a level playing field that all must follow.
- Voluntary agreements do not promote an EU-wide level playing field, nor do they provide the market pull that EU-level regulation brings. For example, the Restriction on Hazardous Substances regulation is now widely acknowledged as providing the global benchmark for the electronics goods industry.
- The complexity of attempting to negotiate voluntary agreements absorbs immense amounts of time from both government, industry and, if they take the risk of participation, non-governmental organisations. All this time can be wasted, or only have a very short term impact. We do not believe that this is a good use of scarce resources which could be better spent on more permanent solutions.

One of the most debated voluntary agreements of recent years is the pesticides voluntary agreement, which resulted from a successful attempt by the pesticides industry to avoid a pesticides tax. This voluntary agreement has failed in Friends of the Earth’s view, and we are calling for a pesticides tax and a range of other measures [17].

An effective pricing framework

Question 8: How effectively do current prices drive the behaviour of those involved in preventing, producing or managing waste?

There is much agreement between all stakeholders on waste that the economic framework needs to reflect the waste hierarchy, but that is not the case at the moment. Unfortunately there are no proposals in the consultation document that will change the current economic framework for waste.

Landfill tax

The Government has recognised that if the landfill tax is to become an effective economic instrument it needs to be much higher. A higher landfill tax will divert more resources towards re-use and recycling. The Household Waste Recycling Act requires local authorities to introduce doorstep recycling to every household by 2010. Providing a top quality doorstep recycling collection of household waste across England and Wales will cost £375 million. Landfill tax revenues of £75 million in 2005-06, rising to £220 million in 2007-08 could fund this infrastructure. The Government states that £35 a tonne is its target level of landfill tax. This level will not be reached until 2011 with the current £3 a year rise. Friends of the Earth would like to see the landfill tax for active waste increase by £5 a year from the next budget – this would send a stronger signal to waste producers and achieve the benchmark rate in 2008. A £3 per year increase will mean landfill remains too cheap for too long.

Flanders, as mentioned, has an enviable rate of MSW recycling. And it has both high taxes on landfill and incineration: between 1987 and 2000, the rate of increase of the landfill tax was 900 per cent, for incineration it was 100 per cent [18]. To ensure that England reaches a similar level of recycling and composting we will need landfill to become the most expensive way to dispose of untreated waste.

To Friends of the Earth there seems to be a clear case for differentiating the rate of landfill tax so that a lower rate – although not necessarily the rate applied to inert waste – applies to material which is landfilled following a stabilisation process, subject to specific standards for the output material being met. These could easily be set given that stability measurements will already have been made under the Environment Agency's performance measurement system, at least where municipal waste is being treated.

The clear advantage of such a policy would be that those local authorities seeking to introduce technologies to improve their balance of landfill allowances, and to do so in the short-term, have, in stabilisation technologies, a fairly simple and - from a climate change perspective - effective solution with a relatively short lead time. However, the costs are currently unreasonably inflated by the application of a landfill tax to material which barely generates methane at all, even though the basis for the tax has largely been predicated upon the likely emissions of methane from landfills.

Incineration

Friends of the Earth also wants to see waste incineration taxed, again to reflect the waste hierarchy. Page 11 of the consultation document states that by 2025 the government wishes to see that:

“Economics of waste management reflect the waste hierarchy, act as driving force for sustainable resource use and management and encourage waste producers and consumers to behave in a way that protects the environment and human health;”

Yet the consultation proposes no mechanisms, other than statutory targets for recycling and composting, to prevent a major shift from landfill to incineration. Without further measures this is likely to occur because:

- The economics of LATS and landfill tax, combined with the availability of PFI funding, will drive councils towards incineration, not recycling.
- The problem of long incineration contracts generating a constant demand for waste has not been addressed by the government. To claim that incorporating commercial waste into these contracts will solve this problem is not credible when at the same time the Government is planning to encourage greater recycling and prevention of this waste.

If the Government has over-estimated waste arisings – or waste prevention activity are not a failure – then the reduction in waste arisings is likely to be accompanied by a reduction in recycling and an increase in incineration, due to the long incineration contracts – as mentioned on page 46 of the environmental report:

“In this Scenario 1, the effect of waste reduction on the modelling assumptions results in some excess treatment capacity within the infrastructure already planned for by local authorities (since most local authority planning anticipates higher growth rates). The net effect is to reduce recycling rates over the modelling period as this excess capacity is utilised. In practice, some sharing of capacity between authorities is likely to occur, which would mitigate this tendency. The environmental benefits are therefore likely to be understated. See further Appendix D below.”

This paragraph argues that ‘sharing of capacity’ between authorities would mitigate this tendency. If many authorities have signed long term incinerator contracts this is not going to be the case. If waste prevention and recycling activities are successful – including in the commercial waste field, which has huge potential – then we are likely to see a situation where recycling levels are drastically reduced as the necessity to fulfil incineration contracts drives a higher percentage of this reduced waste arising into incineration.

The only measure that the Government seems to be relying on to prevent an even bigger expansion of incineration than currently proposed is public opposition. In conversations that Friends of the Earth has had with civil servants working on the LAWRRD model they say that they have estimated that public opposition is equivalent to a tax on incineration of £12 a tonne. As there is no guarantee that public opposition will be successful in containing waste incineration it is alarming that the Government does not have any other way of constraining its expansion.

The negative external costs of waste incineration have not been internalised. And various studies have calculated that the external costs range from £10-£14 a tonne [19],[20],[21]. In the next budget the Government should introduce a tax of at least £12 a tonne for electricity-only incineration. Not only is incineration not taxed, it actually receives subsidies for the energy that it produces. Electricity from waste incinerators receives a tax break from the climate change levy currently worth £5 million per year as a “renewable” energy. The tax break gets bigger the more biodegradable waste, such as paper and garden waste, the incinerator is claimed to burn. This perversely discourages composting and paper recycling, both of which government waste policy aims to increase. This is a perverse situation because the energy saved through material recycling does not receive this subsidy.

The current system of tax breaks for energy from waste equates to about £11 a tonne. If recycling was treated in the same way materials should receive between £17-£622 per tonne depending on the material [22]. The net effect on a typical tonne of recyclables collected on a kerbside round would be to increase the revenue from materials sales by somewhere between £40 and £50 depending upon materials mix. This would have a huge effect on the ability of local authorities to implement comprehensive kerbside schemes and make recycling more cost effective for businesses.

PFI

A specific strand of the Government’s Private Finance Initiative (PFI) applies to waste. Since November 1996, the Government has encouraged use of PFI by paying additional revenue support (now known as PFI Credits) to schemes approved by the nominated Project Review Group. These are essentially a form of grant, based upon the capital expenditure element of the project.

The major problem with the use of PFI Credits in waste management has been its bias toward capital heavy options for waste management. Because the choice in waste management is made from a range of approaches that differ considerably from one another, including in terms of capital expenditure, the mechanics of the PFI scheme can skew decision making [23].

Incineration is a capital intensive option compared to recycling and composting. Of the first eight waste projects to attract PFI support, seven included incinerators and none supported recycling and / or composting of source separated materials in isolation. Although the PFI criteria changed in 2000 to try to address this change, large scale incineration projects are still getting funded. These projects include

an incinerator in Cornwall, which is now locked into a 30 year contract to burn 50 per cent of its waste with SITA UK.

The Government must investigate immediately if the awarding of PFI contracts is affecting local authorities adopting the best environmental option for the treatment of waste within their area, including their ability to maximise waste minimization, reuse and recycling / composting schemes.

Question 9: Are there further tradable allowance (or other) schemes that could be developed to help the market deliver environmental outcomes more efficiently?

Friends of the Earth would like councils to be given the powers to implement charging schemes for householders to encourage waste prevention, reuse, recycling and composting. Charging householders for the amount of waste they put out for disposal has the potential to dramatically change the way individuals perceive their waste production and how they manage it. Variable charging schemes have been implemented in many European countries including Austria, Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg and Sweden, and have had a significant impact, increasing recycling by 30-40 per cent [24].

Many reports have shown that variable charging experiences in other European countries have led to both a reduction in residual waste collected and increases in the amount put out for recycling [25,26]. A report carried out for CIWM found that the residual waste collected falls, by about 10-25 per cent. In fact in weight based systems 30 per cent reduction was not uncommon [27]. This report also showed that direct charging schemes can help reduce levels of residual waste to less than 150kg per inhabitant. In the UK, currently average is 400kg per inhabitant.

There has been some debate whether we can incentivise householders to reduce waste rather than penalise them. In a recent report carried out by Corus [28], the threat of penalties was found to be more effective than the reward system. Nine authorities had tried introducing the threat of penalties, and all who had introduced this measure found it to be effective. The London Borough of Barnet, the first council to introduce compulsory recycling backed by fines, said it had been contacted by 80 other authorities. The scheme went borough-wide in March 05, after a year's pilot in four wards from 1st April 2004. Over those two years, recycling has risen from nearly 17 per cent to 29 per cent of waste.

A recent survey found that many councils would be keen to set up charging schemes if they had the power to do so [29]. A survey of 87 recycling and waste management officers and managers in local authorities found that nearly 40 per cent would introduce separate waste charging schemes for households. The respondents also believed this action would increase householder awareness of the cost of waste collection and disposal, make people responsible for their waste and promote waste prevention and recycling.

To ensure that these schemes can be put in place fairly there need to be good doorstep collection schemes in place for recyclable and compostable materials and good alternatives, such as reusable nappies for avoiding non-recyclable waste.

Friends of the Earth believes that systems must be designed to avoid a disproportionate impact on low-income families. However, this issue could be addressed through a rebate system similar to the one in operation for the council tax. Initially, there may be an increase in fly-tipping, but research shows this has not been a major problem in other countries. Putting in place high fines for fly-tipping helps to avoid the risk.

Variable charging schemes need to be developed with the support of the public so we are calling on the Government to give local authorities the power, but not a requirement, to develop schemes appropriate to their local situation.

Individuals

Question 10: Should there be greater effort to encourage waste prevention and minimisation relative to recycling and, if so, how should this be done?

The Government predicts that the amount of MSW we produce will rise by between 0.75 per cent and 2.25 per cent year on year. This means we could be producing as much as 41.6 million tonnes of MSW in 2020. The Government also says that commercial waste will increase by about 50 per cent by 2020.

However, the Government's waste strategy contains no clear policies for dealing with these increases and there is no target for waste prevention. We should be moving away from the 'predict and provide' model and instead be deciding where we want to be and what policies we need to adopt to get us there. A 50 per cent increase in commercial waste is surely not desirable so this growth needs to be addressed rather than just accepted. Even the Government's own research has shown that a waste strategy based on waste prevention would have greater environmental benefits than the proposals in the current review [30].

The Government needs to set an ambitious waste prevention target and adopt policies to ensure that it is met. There is considerable scope to reduce waste production through reuse and avoidance measures. One measure that the Government could adopt to increase household waste prevention would be variable charging (see comments under question 9.)

Friends of the Earth would like the Government to adopt the following waste prevention policies:

- Adopt a target to achieve zero growth of all waste by 2010 and by 2008 the Government should identify a waste prevention target for all waste for 2020
- Adopt a target to reduce MSW by 1.5 per cent per year

The target of zero growth for total waste by 2010 is achievable and will give the Government time to collate research and data on a target for 2020.

The average annual increase in MSW from 2000/01 to 2004/05 has been 1.5 per cent, and there was a decrease of 1 per cent in MSW arisings between the years 2002/3 and 2003/04. Waste generation in London went down by 0.9 per cent in 2004/5 [31], in the context of slight increase in the population of London during this period [32]

Therefore we consider that a target of 1.5 per cent reduction year on year for MSW is realistic, given that even without policies aimed at reducing growth, we have had years when MSW arisings decrease.

Friends of the Earth also believes the Government should allow councils to variably charge for waste (see our answer to question 9). The Government should also implement an advertising campaign asking people to think how they can avoid buying the materials that end up in their bin. Through WRAP good practice waste prevention schemes should be identified and disseminated to local authorities, including information on real nappy washing subsidies, and the various ways that councils or the community sector have encouraged reuse to name a few.

We also consider that it is important that the Government works with its European partners to establish an effective cross-European approach to waste prevention, backed by regulations where appropriate. The current discussion on the revision of the Waste Framework Directive provides a perfect opportunity to set up such a process.

Business

Question 11: How can businesses be engaged in their capacity as purchasers and providers of services?

As mentioned elsewhere, we consider that the regulatory approach is the most effective method of getting business to change its behaviour. As part of this approach, we support a ban on landfill or incineration of recyclable and compostable materials. Phased in over a number of years, this is likely to be the most effective method of forcing recycling of commercial and industrial waste, and motivating businesses to re-think their approach to waste.

In addition, we would suggest the following:

- Companies should be obliged to calculate and report annually on their total waste arisings, and the percentage recycled and composted. They should also be obliged to set targets.
- Businesses should be encouraged to implement an environmental purchasing policy. Government could assist in this by increasing the profile of eco-labelling initiatives.

Government leadership by example

Question 12: What more can the Government do to provide an example in its own waste management and product procurement policies to reduce waste and waste impacts?

- Government should set a series of targets for a phase-out of residual waste.
- A league table of Departmental recycling and composting rates should be produced annually, and publicised.
- The Government should fund research into maximising recycling and composting across the Government, in particular focussing on those areas with high potential but high complexity, like the National Health Service.
- All government purchasing should move towards purchasing only truly recyclable or compostable products, and minimum recycled content should be specified.

Evidence for development of future policies

Question 13: What are the information gaps requiring waste management-related research in the short and long-term?

- To implement a plan for the phase out of residual municipal waste, the precise composition of the waste stream that currently can't be recycled and composted needs to be established. Then the policy measures need to be identified which would lead to the gradually phase-out of residual waste from the municipal stream. A similar programme needs to be carried out for commercial and industrial waste.
- There is a severe lack of information on the biodegradable fraction of the waste stream and which treatment techniques bring the best environmental benefits. The benefits of compost to soil and an idea of what materials this would replace in both the horticultural and agricultural sector is an important missing piece of the jigsaw.
- There needs to be a better understanding of C&I waste. What the quantities are, what the composition is, what would be the maximum possible recycling rate with current waste policies and what policies should be adopted to ensure that the majority of this waste can be recycled and composted.
- What contribution reuse and hire services could make to waste prevention in England and what contribution these could make to local and regional economies.
- The government should continue to examine policy measures around the world, with the aim of establishing which ones are most effective at improving resource efficiency.

CHAPTER 4 – WASTE PREVENTION IN THE CONTEXT OF SUSTAINABLE CONSUMPTION AND PRODUCTION

Prioritisation for effective policy intervention

Question 14: What products and materials do you consider should be priorities for action to reduce waste and waste impacts?

In order to achieve a gradual phase out of residual waste, we would prioritise any materials that are currently present in residual waste. For example:

- How to move to fully recyclable or compostable packaging, e.g. by reducing the variety of packaging materials to ensure that real recycling is possible.
- For what packaging (and other) applications would compostable materials be best, given the need to ensure that consumers are aware of whether a material should be composted or recycled.
- The materials mentioned in our answer to question 6.

The government should also review the potential for new product or material taxes to complement waste taxes. Products or materials which create specific environmental problems not dealt with effectively by existing regulation or waste taxation have been tackled by targeted taxes in some other countries. Denmark taxes disposable items such as batteries, electric bulbs and also tyres and pesticides. Ireland's new plastic bag tax is the latest example. The Chancellor should review which products warrant further consideration for this type of measure and how these should be designed.

We would also suggest that the Government should prioritise some specific materials in order to rapidly increase their recycling rate. In particular aluminium, which is easy to recycle, and is very environmentally damaging to mine and refine. The Government should aim to achieve 100 per cent recycling of aluminium as soon as possible.

Waste within a coherent 'product life-cycle' policy

Question 15: What is the scope for reducing waste and achieving more efficient resource use at the product design phase?

The product design phase is the most important for maximising the efficiency of resources use. This has been known for decades, yet few manufacturers have really taken environmental issues on board in their design process. This is mainly because of a lack of any financial or regulatory incentive to do this, given that in general the producer is not involved in disposal.

The most effective method of overcoming this problem is creating a system of producer responsibility to ensure that the producer has a financial incentive to make products more recyclable or compostable (see earlier questions).

In addition, companies should be informed that non-recyclable materials may be subject to future measures, given a Government commitment to phase out residual waste. They should also be encouraged to use recycled materials in their products.

Another important issue is durability, i.e. how long products last. There are strong market pressures against durability, not least the fact that a long-lasting product means fewer replacement purchases. It is clear that manufacturers can make products more durable if they wish to, yet there is little advantage to doing this. A range of methods could change this situation, for example:

- Compulsory guarantees of a certain number of years
- A "Long Life" mark, guaranteeing the number of the years that the product will last.
- Producer responsibility schemes designed to reward long-lived products (e.g. with charges based on return share rather than market share).

Question 16: What is the scope for improving the amount of waste-related information provided about products placed on the market?

There is currently little waste-related information that is of use to consumers. Many products have misleading ‘recyclable’ labels, which only serve to confuse a consumer when they are deciding if their local council recycling service will accept the product.

It should be made illegal to describe materials as ‘recyclable’ unless at least 75 per cent of the UK population have easy access to appropriate recycling facilities and at least 50 per cent of the material is being recycled in the UK.

In order to create an effective system, consumers need to be clearly told what can be done with the material they are buying, for example a 3-level labelling system:

- Recyclable in most areas – e.g. in plastics – PET and HDPE. This would work best if there was some standardisation of recycling schemes.
- Home compostable
- Residual waste in most areas (e.g. other plastics)

Consumers can then be encouraged not to purchase products in the last category. Labelling must be clear and well understood, for example it will be important to distinguish between compostable plastics and other plastics.

Labelling should also be used to promote markets for recycled products.

More detailed waste profiles, such as those described in the consultation document, should be made available on the producers web site, and should be provided to business customers.

Product and resource re-use

Question 17: What are your views on how re-use and re-manufacture could be stimulated further?

- Re-use needs to be more integrated with kerbside collection, with a wider range of items being collected. This is already happening with clothes in some areas.
- Local authority bulky waste collection services, and bring sites, should be re-cast to aim for reuse of items collected as the highest priority option. The community sector is already pioneering work in this area, and this work should be further funded and best practice should be promoted.
- Similarly, changes in attitude are required among those who collect business waste, in order to promote re-use. This could involve integration with the services provided for municipal waste.
- Re-use is being threatened by the move to make products (including clothes) as cheaply as possible, regardless of their longevity. As mentioned before, compulsory guarantee periods could help deal with this, as could quality standards.
- Producer responsibility systems should be designed to encourage re-use and remanufacture.

Engaging business to improve resource efficiency

Question 18: What are the best ways of stimulating business action on resource efficiency, including waste prevention?

The consultation document focuses on the provision of advice services and resource efficiency clubs. Whilst these are certainly useful, they are not sufficient.

Businesses, like organisations and individuals, tend to carry on working in the same sort of way until something comes along to disrupt what they are doing – e.g. a big change in price, or a regulatory restriction. In the waste field the most effective tools are likely to include:

- Increases in the price of waste disposal
- Restrictions on waste disposal (e.g. no recyclable or compostable materials to landfill or incineration)
- Producer responsibility
- Increases in prices of virgin resources, as a result of market changes or taxes.

Some action can also be generated through public pressure – e.g. consumers returning unrecyclable packaging to supermarkets – though this action may be short-lived or tokenistic.

Encouraging SMEs to reduce waste

Question 19: How can resource efficiency, including waste prevention, be stimulated among SMEs in a way which does not incur disproportionate costs?

- A push from regulatory and fiscal measures, as in question 18
- Support for SMEs to respond to these regulatory and fiscal measures.

Question 20: What role should Business Links, local authorities or other organisations play in engaging small businesses?

- Making it easier for them to recycle, see question 44

Extending the sectoral approach: producer responsibility

Question 21: What are your views on developing a sectoral approach to waste prevention including setting waste reduction targets ?

We would support the Government taking a sectoral approach, and setting sectoral targets. The similarity in activities across a sector should make it easier to determine the nature of these targets, and allow information sharing on methods of reaching them.

However, as explained in our answer to question 7, we are extremely sceptical about the effectiveness of the voluntary approach. The targets in both the Courtauld commitment and the Food Industry Sustainability Strategy are unambitious, and look to be more aimed at heading off regulation than making significant environmental improvements.

One tool for prioritising between sectors is to consider whether waste production is increasing or decreasing. Any sector in which waste production is increasing should be subject to priority attention with a view to regulation. Given the well established waste minimisation techniques available it is not acceptable that any sector should be increasing its waste generation.

Reducing environmental impacts of consumption

Question 22: How do we best engage consumers to reduce waste?

Instead of just a decoupling of waste growth from GDP we need to ensure that resource use in the UK actually decreases. The level of our consumption in the UK is already having a significant impact on the environment and communities across the world, and it's getting worse.

The Government needs to address this issue firstly by openly acknowledging that reducing material consumption by consumers is an aim of the Government. Therefore the Government need to implement a plan for communicating to consumers about reduced consumption as significant attitude and behaviour change is needed. An advertising campaign should be run addressing the issue of material consumption and the environmental impacts that it has.

There also needs to be a clear, easy and well publicised way for consumers to obtain environmental information on products such as which products have longer durability, use less resources in production and are fully repairable, re-useable and recyclable. This may take the form of a website or a phone helpline.

To ensure that consumers can make choices, products also need to be labelled for durability, recyclability and compostability. This would mean that consumers can make choices between products at the point of sale (see also our answer to question 16).

There also needs to be promotion of hire and re-fill services. These businesses should be supported and advertised by local authorities to consumers.

Deposit refund schemes also need to be implemented to encourage reuse of materials. They have been successful in a number of countries including Sweden, where a system operates for glass and plastic bottles and aluminium cans. A number of schemes have achieved return levels in excess of 90 per cent.

As mentioned elsewhere in our response Friends of the Earth would also like to see variable charging introduced. This would encourage householders to think about their own waste consumption, which could then lead to increased pressure from consumers on retailers and producers to address the durability, reparability and recyclability of products.

CHAPTER 5 – RECOVERING RESOURCES FROM WASTE

Local authority performance

Question 23: Should we set future statutory performance standards for Local Authorities related to recycling and composting household waste and how far ahead should any future targets be?

Friends of the Earth believes that setting statutory targets for local authorities has made a huge impact on recycling performance over the last few years. The proportion of household waste recycled in England has increased from 11.2 per cent in 2000/01 to around 23 per cent in 2004/05.

As mentioned in Friends of the Earth's consultation response to the paper on Options for Statutory Performance Standards for local authorities, over a third of local authorities have already reached the 2005/06 targets and even in the lowest performing authorities 34 per cent of authorities have already reached the proposed target of 20 per cent by 2007/08 (using 2004/05 figures). These authorities will need higher targets to encourage them to keep increasing their recycling and composting performance. LATS will drive diversion from landfill but without Statutory Performance Standards for recycling and composting in the long term we may see local authorities just using inefficient energy from waste facilities to meet their LATS targets, instead of continuing to improve their recycling and composting.

The targets need to be set far enough into the future so that local authorities can plan for them. Targets should be set for at least the next 10 years. Obviously there will be a chance to review them in 2010 when the waste strategy is reviewed yet again.

However, the more important question to ask is what targets should be set? At the very minimum targets should be set that will deliver the proposed national recycling and composting targets of 40 per cent by 2010 and 50 per cent by 2020. In Friends of the Earth's view targets should be set that will take us towards a recycling and composting rate of 75 per cent by 2015.

Question 24: What are your views on the possible changes to the design of the standards suggested above?

Setting a standard for the proportion of waste collected that is not recycled or composted would be an excellent idea. This would both drive recycling and composting for local authorities and also waste prevention measures. Flanders has a target to reduce the amount of residual waste per inhabitant to 150kg per annum. This could be a real driver for local authorities to take waste prevention measures seriously.

If there is any redesign of Statutory Performance Standards for local authorities, careful consideration needs to be given to the issue of the collection of garden and kitchen waste. Many local authorities have introduced garden waste collections to help them meet their recycling and LATS targets. There has been much debate about whether this has led to a growth in MSW or if these collections are just replacing people delivering their own waste to a CA site or home composting. However, a collection

of garden waste will ensure that householders without cars and householders who are unable to home compost resist from putting biodegradable material in their residual waste collection. But the area which local authorities have paid less attention to is the collection of kitchen waste. About 20 per cent of bin waste is assumed to be kitchen waste [33] so it is absolutely imperative that local authorities are provided with a target for taking action on this material stream. Once home composting has been encouraged they should be concentrating on collecting source-separated kitchen waste for anaerobic digestion to produce energy and a soil improver (also see question 26).

Question 25: What are your views on the possible changes to how standards should apply to local authorities suggested above?

Friends of the Earth does not agree with setting minimum performance indicators only. Using the 2004/05 data it can be seen that 50 authorities have already met the mentioned target of 30 per cent by 2015 and 113 have already met a target of 25 per cent. These top performing authorities are going to be key in ensuring that the national targets are met. But without both sticks and carrots to continually improve their recycling rates reaching even the targets proposed in the consultation will be a challenge.

Individual targets for local authorities allow a range of issues to be taken into account for target setting, including differences in housing type, social mobility etc. But there are very good case studies of schemes in urban more deprived areas that have led to high participation rates and recycling levels [34].

Impact on the management of waste further up the hierarchy

Question 26: Do you have any comments on the proposal to encourage the diversion of wastes from landfill to Energy from Waste?

Use of the term energy from waste is not helpful in the consultation document. Energy from waste can cover a wide range of technologies that have different impacts on climate change and resource use. By using this generic term the Government are not acknowledging the different impacts, especially climate impacts, of different energy from waste technologies. Some energy from waste technologies, such as anaerobic digestion (AD), only generate biogenic carbon dioxide whilst others emit both biogenic and non-biogenic carbon dioxide – the consultation document makes no distinction between the two.

Energy from waste incineration

Waste incineration which generates electricity only has been shown to perform no better in climate terms than landfill with high methane capture [35,36] Recent research conducted by Eunomia Research and Consulting Ltd [37] has shown that waste incinerators that generate electricity emit 33 per cent more fossil fuel derived CO₂ than gas fired power stations. However, if waste incinerators operate in CHP mode or generate heat only, they perform better than a conventional electricity generating incinerator, and are marginally better than a gas fired power station.

The report also looked forward to the future where England is meeting its recycling target of 50 per cent as proposed in the consultation document on the waste strategy. It is expected that the efficiency of both waste incinerators and power stations will increase. However, there will also be a change in the composition of the waste that is burnt in the waste incinerators. From looking at experience elsewhere and at current UK trends it is anticipated that higher levels of paper, card and biowaste (kitchen and garden waste) will be collected for recycling and composting thus increasing the proportion of plastics left in the residual waste stream.

The report showed that in the future the performance of waste incinerators worsens relative to fossil fuel generating technologies. Where waste incinerators are only generating electricity they will emit 78 per cent more fossil CO₂ than gas power stations, and only around 5 per cent less than a coal power station.

In the report by ERM which accompanied the consultation document it was assumed that electricity generated by waste incinerators displaced the electricity from combined cycle gas turbines. If this is

assumed to be the case by the Government, waste incinerators that only generate electricity cannot be assumed to lead to a net reduction in greenhouse gas emissions.

It therefore makes no sense in environmental terms to support this type of waste incineration technology when there are other energy from waste technologies such as AD that don't emit fossil fuel derived CO₂. Friends of the Earth recommend that DEFRA read a copy of the full report by Eunomia on climate change and incineration. It can be found at:

http://www.foe.co.uk/resource/reports/changing_climate.pdf

The material that is assumed by many to bring most benefits from burning to produce energy is plastics [38]. However, the Eunomia report found that the savings that could be made through plastic recycling could be in the order of 250 kg CO₂ equivalents (82 kg CO₂ equivalents with a capture rate of 40 per cent), whilst burning plastics would make a net contribution to CO₂ in the atmosphere of 159 kg CO₂ equivalent. A recent study carried out by WRAP also found that of the Life Cycle studies looked at, 32 studies preferred recycling of the material compared to only 8 for incineration [39].

Both these studies indicate that the preferred approach for dealing with plastics from a climate change point of view should be to maximise their separation in the waste stream for recycling rather than "using them to generate energy".

There are also many other reasons for the Government not to support the expansion of waste incineration in England:

- Waste incineration is an expensive option for local authorities which ties them into long-term inflexible contracts. These contracts constrict the ability of authorities to make the transformation needed in waste prevention and recycling and composting [40]. The Government seems to accept this concern in the consultation document, yet there is no proposal to overcome it. Instead there is just a vague hope that there will be plenty of commercial waste available to be disposed of in these incinerators. However, surely the aim of the Government is to divert this commercial waste to recycling or composting, not incineration.
- As there is no agreement on the maximum recycling rate that can be achieved in England we will still end up sending valuable resources to incineration that should be recycled. A recent life cycle study carried out by WRAP again demonstrates that recycling is a much better environmental option than incinerating waste [41].
- There is major public opposition to waste incineration. DEFRA have acknowledged this opposition in the Environmental Report as it is included as an assumption in the LAWRRD model [42]. If we are going to really tackle our resource use and also meet the EU Landfill Directive targets we need to be proposing waste infrastructure that has more support from affected populations than waste incineration. The East Sussex and Brighton and Hove Waste Local Plan, which the incinerator is a central feature of, has been completely rejected by the public. There were 83,117 objections to the first and second versions. The Councils' response to the independent Inspector's report on the Plan attracted a further 8,429 objections. No other waste plan in the UK has caused such public controversy, with a widespread negative response from the public that the councils are meant to serve.
- A study for the Community Recycling Network [43] compared various waste management options and found that in terms of human toxicity, untreated waste going to landfill was by far the worst option for managing our waste, followed by 'standard' UK incineration. Even the 2004 study for DEFRA [44] found that incineration resulted in the highest emissions of nearly all of the substances including carbon dioxide, nitrous oxides, particulate matter, arsenic, hydrogen chloride dioxins and furans as compared with other waste management options.

Therefore instead of promoting energy from waste per se the Government should state that they do not want to see the expansion of waste incineration which only generates electricity. They should also ensure that the Waste Incineration Directive and PPC Regulations are properly implemented by ensuring that any waste incinerator already in the pipeline should recover the heat and put it to use. To ensure that waste incineration does not expand DEFRA needs to put the case forward for an

incineration tax to the Treasury (see answer to Question 8). Also they should support the expansion of Anaerobic Digestion for source-separated biowaste (see answer to Question 27).

Question 27: Of the two main current Energy from Waste technologies – i.e. a) MBT/RDF and b) direct incineration – is there any reason to prefer one over the other), and if so, why?

This question seems to confuse the issue of ‘if we want to produce energy from waste which is the best environmental way to do so?’ with ‘what form of residual waste treatment should we be using in England?’.

The consultation draft waste strategy is relatively silent on the role of anaerobic digestion. The technology does figure in the ERM report, but the data used in that report suggests a figure for gross electricity generation which is approximately one tenth of what most suppliers would be aiming for [45].

If, in the near future, more and more local authorities begin to focus on the source separation of biowastes, including food wastes, then surely this might be a sensible source of energy? It seems strange, therefore, that the potential role of anaerobic digestion is not the subject of greater debate, or indeed, that it is not pursued more enthusiastically as a treatment for biowastes.

It is quite well established that food waste is one of the largest fractions, if not the largest fraction, of the household waste stream. Such material, as well as some garden wastes and cardboard which is of too low a grade to recycle (e.g. because of food contamination), is ideal for digestion.

Suppose that one assumes that 20 per cent of ‘bin waste’ is food waste (an average of the figure used in the ERM report, based on work undertaken for the National Assembly for Wales, and that produced for the Strategy Unit by Julian Parfitt [46]). Suppose also that garden waste constitutes 14 per cent of ‘bin waste’ arisings. Data for the different administrations in the UK suggests that total ‘bin waste’ arisings are likely to have been of the order of 25 million tonnes in 2005/6. From this, bin waste might be assumed to contain:

- 5 million tonnes food waste; and
- 3.5 million tonnes garden waste.

Some estimates of biogas generation from suppliers which were gathered in the context of work in Northern Ireland are shown in the Eunomia report. It seems reasonable, on the basis of these figures, to use a figure of 80m³ methane per tonne of wet waste input from either kitchen waste only or kitchen and garden waste combined.

Assuming 33 per cent efficiency of electricity generation from the biogas, and assuming a parasitic load of 7.5 per cent of energy generated (figures are typically between 5 per cent and 10 per cent), then some 244kWh per tonne of wet waste is generated. It almost goes without saying that with the exception of any fuels brought in from off-site, the electricity is generated without emissions of non-biogenic CO₂, and the methane is captured for combustion.

If UK authorities were collecting and digesting 70 per cent of the available biowaste today, then this would generate a total of 1.45 TWh of electricity under the assumptions above. This is around half of what was estimated by Oakdene Hollins to be possible from residual waste by 2010 under assumptions taken from the Strategy Unit analysis (including a 2 per cent per annum growth rate in total waste) and using what are very high efficiencies of generation, which were also applied (erroneously) to gross, as opposed to net, calorific values [47]. Evidently, a greater quantity of electricity could be generated if one included industrial and commercial organic wastes, whilst alternative outputs could include heat, the use of biogas (once upgraded and compressed) as vehicle fuel, and possibly in the context of fuel cell development.

Therefore the Government should be promoting AD as a way to produce both truly renewable energy and to divert biodegradable waste from landfill. It is disappointing that the consultation document does not highlight the work of DEFRA’s own New Technologies Programme which has been giving financial support to technologies that will divert biodegradable municipal waste (BMW) from landfill.

One of the first demonstrator projects that is up and running is an AD plant for BMW waste in Shropshire.

The Eunomia report referred to in Question 26 also compared the climate impacts of different waste treatments for residual waste [48]. Landfill with low rates of methane capture perform worst, followed by Mechanical Biological Treatment (MBT), with Refuse Derived Fuel (RDF) burnt in a fluidised bed incineration. This is due to the increased emissions of NO_x from these types of incinerators. Electricity only waste incinerators perform worse than all of the MBT treatments (except RDF to fluidised bed incineration). Again this data backs up the argument that the Government should not be supporting electricity only waste incineration.

In Friends of the Earth's view residual waste needs to be managed by a technology that can be built in a modular and flexible way, that removes the remaining recyclable waste such as metals and plastics and anaerobically digests the rest, thus producing a small amount of energy in the process that will offset the requirements to operate the plant.

The right sort of MBT can provide a suitable, practicable and affordable alternative to waste incineration, which fulfills the mandate for pre-treatment of waste to be landfilled, in a way that effectively reduces problems related to landfilling of fermentable organic matter. Also, it provides for the needed flexibility since it is much less affected by economies of scale than incineration, nor does it suffer from changes in composition of residuals. MBT plants may also use the same technologies as composting and anaerobic digestion; hence you may use progressively more "Biological treatment capacity" for composting of source separated materials, and less for MBT of residuals as we get to a stage where less residual waste is coming through the system.

In Friends of the Earth's view the stabilate from MBT should not be burnt in cement kilns (which are "bad neighbours" for communities and have been shown to be exceeding their Waste Incineration Directive (WID) limits [49]). The stabilate from MBT should instead be used as landfill cover, and if suitable, for remediation of brown field land.

The future of landfill

Question 28: Should landfill eventually be the home of last resort taking only non-biodegradable residues from waste treatment?

In the medium term, yes. In the long term measures should be taken to phase out the need for such disposal, for example by changing the design of the products that lead to such residues.

Procurement of waste management services

Question 29: Views are invited on the proposed actions to improve the waste procurement and how to take them forward

There are many problems with waste procurement - the consultation document mentions some of them but not all. One of Friends of Earth's main concerns about PFI contracts is that waste management by local authorities is being contract led over plan led (which is what is required as set out in PPS10 [50]).

We also have concerns that large waste management companies, which tend to obtain the contracts under PFI, are not best suited for delivering all aspects of waste management – including waste minimisation. The Community sector is often better able to deliver best practice kerbside (i.e. source segregation of recyclate rather than co-mingled), community composting and re-use and minimisation projects. See the response from the Community Recycling Network for more information on this problem.

Local authorities are also entering long term contracts which are inhibiting the move towards sustainable waste management. Large facilities such as waste incinerators are being built on the back of these contracts, meaning that the flexibility for authorities to continually improve waste minimisation, reuse and recycling is removed. Friends of the Earth believes that no waste contract

needs to be more than 10 years long to allow local authorities the flexibility in responding to new legislation and changes in the waste stream.

Also waste procurement by local authorities is not an open and transparent process. As much of the information is classed as commercially confidential, it is very hard for local stakeholders to engage and participate in any decisions the council makes regarding waste procurement. A recent example of this has been the refusal by Norfolk Council to disclose the information about the contract it has recently signed with WRG [51]. The review of the WIP must look at ways to ensure that democratic accountability is enshrined in the waste procurement process.

Delivering the market capacity for recycled materials

Question 30: What more could the government do to accelerate the development of markets for recycled materials?

The consultation document mentions the role of ‘end of waste’ in developing markets. Friends of the Earth is supportive of end of waste where genuine recovery has occurred (e.g. good quality compost). However, we are working with our European colleagues to ensure that this process is not open to abuse.

The Government needs to promote the buying of recycled goods to consumers –householders, the public sector and business. One way of doing this could be to reduce the VAT on products made from recycled materials.

We are supportive of WRAP’s work in this area, however, we also consider that there needs to be a step-change in the promotion and use of recycled materials. In some sectors it appears to be becoming more difficult to obtain products made from recycled materials (e.g. tissues). There is a clear role for supermarkets here, and for procurement policies. We would also like to Government to make a clear indication that it has an ongoing commitment to the work of WRAP.

Imports and exports

Question 31: How can we improve compliance with the controls that apply to the export of waste for recycling?

In Friends of the Earth’s view, materials should only be sent abroad for recycling if the party sending the material has fully audited what will happen to the waste once it leaves the UK. This audit should ensure that reprocessing is done with EU-level standards of Health, Safety & Environment, and should ensure good wages and other working conditions. One option would be to create a quality mark to verify this.

In addition:

- The Environment Agency needs to step up the level of inspection of shipments, and needs to carry out high profile prosecutions.
- The duty of care concept should be strengthened to ensure that local authorities and businesses are made responsible for ensuring that their waste is properly dealt with.
- The Environment Agency’s guidance on Duty of Care should make it clear that this duty means that there must be an audited supply chain.

Question 32: What should the balance be between the development and encouragement of domestic capacity for recycling and the reliance on overseas markets?

In Friends of the Earth’s view, the UK should invest in domestic capacity where possible. However, we are not opposed to waste export for recycling (subject to the conditions given in our answer to Question 31).

Commercial and industrial waste

Question 33: How can we encourage more recycling and recovery of commercial and industrial waste?

See our earlier answers, in particular to questions 6,7,11,18 and 21. We consider that regulatory measures are likely to be the most effective method of encouraging more recycling, for example by restricting the landfill or incineration of materials that can be recycled or composted.

Construction and demolition waste

Question 34: What more should we do to encourage reduction, recycling and recovery of construction and demolition waste?

- Procurement standards
- Producer responsibility
- Restrictions on landfill and incineration of recyclable and compostable materials
- Fiscal measures – more expensive landfill and incineration.

Small and medium sized enterprises

Question 35: What are the current practical and cost barriers to recycling SMEs?

See our answer to question 44.

Question 36: What might business and commercial providers do to overcome these barriers and how could the government support them?

See our answers to questions 19 and 20.

Hazardous waste

Question 37: Do you think the products in paragraph 87 above are sensible priorities for new producer responsibility initiatives and should such initiatives be voluntary or statutory?

Yes, but see the answer to question 6. We do not consider that a voluntary approach will be effective, see our answer to question 7.

Household hazardous waste

Question 38: Which of the options for household hazardous waste outlined above should be taken forward?

All of a-d. There should be legal requirement on local authorities to separately collect these materials (though it might also be sensible to have take-back by retailers in some cases). Producer responsibility systems would then fund this service and the further processing of the collected material.

CHAPTER 6 – ROLES AND RESPONSIBILITIES

National level

Question 39: What are your views on the proposed Sustainable Waste Programme Board, and on ways for it to engage with waste stakeholders and the wider community?

Friends of the Earth agrees with the statement in the document that there is a lack of clear, coherent and joined up policy on resource and waste issues between government departments. Therefore the setting up of an inter-departmental board would be welcomed – the name is not inspiring though and it should be changed to Resource Programme Board. However this Board will only deliver if there is

real commitment from not only DEFRA but also DTI and Treasury. We would want to see DEFRA having the key role over waste issues and being able to influence other Government departments that are not as enlightened about the need for new legislation and taxes. However, if there are any proposals for stakeholder representation, this must be balanced, with Environmental NGO participation.

Regional level

Question 40: Do you agree that more emphasis is needed on partnership working between local authorities at the regional and sub-regional level on waste procurement?

See concerns raised in question 29 regarding waste procurement. Also there is a severe democratic deficit at the regional decision making level. If there is to be more partnership working it must be ensured that community stakeholders can engage in the process, and that decision making is open and transparent.

Question 41: What role should be played by the RDAs and local authorities respectively in developing a more closed-loop resource economy; and what activities should they undertake?

The English regions have an increasingly important role to play in waste and resource management. Planning for waste at the regional level is a new chance to ensure that waste management in England is both strategic and sustainable. Waste management must meet the new and stringent requirements to deliver sustainable development contained in PPS1, PPS10 and the UK Sustainable Development Strategy.

RDAs should ensure that the following actions are undertaken within their region by incorporating the following policies into their Regional Spatial Strategies:

- ensure a waste reduction target is adopted in the Regional Spatial Strategy and the waste development plans drawn up by Waste Planning Authorities
- identify and disseminate examples of good practice encouraging public sector organisations, businesses and households to reduce waste
- promote resource efficiency and waste minimisation by businesses
- ensure that data on commercial and industrial, construction and demolition waste arisings and recycling rates are collected and shared throughout the region
- collect data on resource flows in the region to identify if waste and resources produced in the region can be used within the region
- development plans should require that all developers provide appropriate space to facilitate storage, re-use, recycling and composting of waste
- during the construction of developments, recycled construction and demolition wastes should be used and the waste produced should be minimised
- development plans should require the use of recycled construction and demolition waste in construction projects.

An excellent example of work done in this area is RAY's 'Recycling Materials to Land in Yorkshire and Humber' project. This set out to discover if there was enough agricultural land, or 'landbank', to accept greater amounts of composted green waste which have to be diverted from landfill in the region. The findings suggest that the area required to spread the region's current green waste is 281,000 hectares.

Local level

Question 42: What are your views on the characteristics for good practice in Local Government set out in Box 2?

As discussed in our answer to question 26, we do not consider the term ‘energy from waste’ to be very useful, as it covers a wide range of technologies. We consider that it would be good practice for local authorities to promote source-separated anaerobic digestion.

Question 43: How effective have LAAs been to date in helping to deliver waste outcomes; and how could partnership arrangements be strengthened for the future at the local or sub-regional level?

No comment at this stage

Improved integration of municipal and business waste management

Question 44: Is there a demand from businesses for increased help from local authorities with recycling services and resource management?

Our impression is that many businesses would like to recycle more, but find it difficult to identify how. Local authorities are well placed to assist with this.

A strategic role for local authorities

Question 45: What are your views on the proposed wider strategic role for local authorities and how this could be supported ?

We would support this.

Local authorities as wider recycling service providers for business waste

Question 46: What are your views on placing requirements of this kind on local authorities and/or businesses?

We would support this.

Local authorities and producer responsibilities

Question 47: What changes need to be made to ensure better interaction of producer responsibility schemes and local authorities?

We are supportive of the producer responsibility approach, and view it as one method of funding waste management activities, in particular recycling and composting.

Development of the voluntary and community waste sector

Question 48: What are your views on the approaches above and how the Government can best facilitate a greater contribution by the voluntary and community sector in delivering waste objectives?

We are very supportive of the work of the voluntary and community sector, and we support the comments made by CRN in their submission. This is the sector which has been innovating and developing new recycling, composting and reuse approaches, whilst the waste industry has been stuck in the past. It is important that this sector receives support, and that it continues to be an important part of the provision of local recycling etc, and is not crowded out by the tendency of local authorities to want all their waste management operations run by one company.

CHAPTER 7 – WASTE CRIME

Question 49: What additional action is needed either to achieve effective enforcement or to prevent waste crime?

Well publicised monitoring and enforcement actions.

Question 50: Is there evidence to link the types and quality of local waste collection services and general cleanliness to levels of fly tipping? What changes can be made to service provision that will reduce fly tipping?

Well publicised monitoring and enforcement actions.

CHAPTER 8 – POLICY SUMMARY

Question 51: Do you have any further comments?

See question 1 and other answers.

SUPPORTING DOCUMENTS

Alongside this consultation document we are publishing a *partial Regulatory Impact Assessment* (pRIA)¹²⁶ and an *Environmental Report* (ER)¹²⁷, on which we invite comments.

Environmental Report

Question 52: Do you have any comments on the Environmental Report?

The main question that arises from the environmental report is: *Why have DEFRA proposed a strategy that does not offer the greatest environmental benefit?* Scenario 0 performs worse than all the other scenarios, but this is the one that is adopted in the consultation document .

Also Friends of the Earth would like to see a scenario modelled that had a decrease in waste arisings rather than just a scenario that has waste stabilisation. Although we asked for this scenario to be modelled by DEFRA, they said that this was no possible during the consultation period – we hope to see such a model emerge in the next months.

We also think that there is a lack of baseline information. Human health baseline data would be mortality and morbidity rates in populations surrounding waste management options. This data set exists and it is unclear as to why it has not been included. It is not good enough to rely on the DEFRA 2004 as this work has been superseded to some extent by the COMEAP work for the Dept. of Health on particulates [52].

It is therefore disappointing to see that the indicators proposed for monitoring the SEA for Population and Human Health do not actually include a measurement of human health, only fly tipping and the number of complaints received. Due to the uncertainties that exist in assessing the health impacts of waste management, surely it would be advantageous to actually measure morbidity and mortality?

On page 60 under key environmental impacts of waste incineration it does not include CO₂ emissions or any environmental impact due to fly ash disposal. It is unclear all the way through the Environmental report how the disposal of fly ash from incineration has been incorporated into the analysis.

Also the Environmental report states that

“The modelling provides a conservative estimate of environmental benefits as the wider environmental improvements in virgin materials reduction, resource utilisation and non-greenhouse gas impacts of materials production and consumption are not included.”

Therefore why does the Government then use this information to compare cost and benefits and then declare that a higher recycling level incurs too much cost? Friends of the Earth does not think that the reason to not adopt a higher recycling target is justified either by this report or the pRIA (see below)

Partial Regulatory Impact Assessment

Question 53: Do you have any comments on the Partial Regulatory Impact Assessment of the Review of England's Waste Strategy?

We found the partial Regulatory Impact Assessment to be useful as a summary of the main consultation document, in particular “*No new regulations on business are proposed*” on page 2, and the disclosure that the main option modelled for the consultation is described as “*No policy change*”.

Also on page 2, we are rather disturbed by the implications of the following paragraph, which we consider spells out a number of the problems with the approach taken by the pRIA:

“Among the Options and sub-options assessed are alternatives to the preferred approach set out in the consultation document. Options are not preferred where the costs do not justify the benefits, where it has not yet been possible to assess the costs and benefits or where a new regulatory burden would be imposed without seeking a voluntary approach first.”

Taking this point by point:

“Options are not preferred where the costs do not justify the benefits”

As is typical of many impact assessments, there are a number of deficiencies that mean that this balancing of costs and benefits is pretty meaningless, including:

- The costs are worked out in considerable more depth than the benefits, and they are also based on information that is, at first sight, more reliable.
- The calculation of costs does not factor in any innovation, either in waste handling (more effective recycling techniques for example), or in the material handled (more recyclable products). In reality, impact assessments usually overestimate costs [53] because they tend to ignore such factors.
- The examination of benefits looks exclusively at the climate benefits of different waste management techniques, as calculated by the ERM report that accompanies the consultation document. This report has been heavily criticised by Eunomia [37] – but this is not the only problem with this analysis. In reality, recycling (or waste prevention, or composting) has a wide range of other benefits, for example for resources efficiency. e.g. recycling aluminium will reduce the need to mine aluminium, with all pollution impacts involved. These benefits (and many others) have not been costed by DEFRA, and are therefore ignored in the consultation document.

This deficient analysis is then used, on page 23 of the main consultation document, in order to justify lower recycling rates:

*“Somewhat higher recycling levels in the later years (2015 and 2020) may be achievable but the results of our modelling (set out in the partial RIA) show this would incur significant cost which **may not be justified** by the additional benefits gained.”* [our emphasis]

Tracing the source of this back to the RIA Page 11:

“Option E considers the impact of higher recycling levels. An option has been modelled that reaches 53 per cent recycling by 2015 and 58 per cent by 2020. (These are not the levels the Government is proposing in the consultation document and is not the Government's preferred option).

70. Option E incurs extra costs of over £770m (net present value). It shows additional environmental benefits valued at between £320m and £990m (net present value).”

So the calculated extra cost of £770 million up until 2020 (around £1 per person per year), is compared with the environmental benefits, and found to overlap with the range of benefits calculated. However, as pointed out above, this benefits analysis only looks at climate benefits of recycling, not resource benefits. This deficiency means that the resource benefits of recycling are effectively counted as zero, and the consultation document's claim on page 23 is very misleading.

“where it has not yet been possible to assess the costs and benefits”

Given the fact that the Government is only making limited efforts to assess the benefits of recycling etc (e.g. only examining climate implications), it is clear that the government’s adoption of this caution depends on circumstances. We would be very concerned if this approach led to paralysis by analysis. We would also want to ensure that analyses are not weighted in favour of the status quo, so costs resulting from inaction and delay should be considered.

“where a new regulatory burden would be imposed without seeking a voluntary approach first.”

As we commented in our answer to question 7, we do not believe that the voluntary approach is effective, and have not seen evidence that has persuaded us otherwise. We are therefore deeply disturbed at the suggestion that the government is not planning to create new regulations until a voluntary approach has been tried and failed. We consider that this is a recipe for delay, uncertainty and conservatism.

Such an approach will not assist in creating innovation in UK industry; instead it will ensure that industries from other, more proactive, countries, will gain.

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