

Jane Davidson AC/AM

Y Gweinidog dros yr Amgylchedd, Cynaliadwyedd a Thai
Minister for Environment, Sustainability and Housing



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

Eich cyf/Your ref yourref
Ein cyf/Our ref ourref

Jenny Randerson AM
Chair, Legislation Committee
No. 4
National Assembly for Wales
Cardiff Bay
CF99 1NA

27 April 2010

Dear Jenny,

I refer to my letter of 27th March in which I provided further information on the proposed Waste (Wales) Measure 2010 following my evidence session at Legislation Committee No.4 on 11th March. I promised to write to you again with more detail on the two further points which are covered below.

Timing of publishing guidance, consultation and bringing regulations into force

The Committee asked for details on the timing of publishing any guidance under the proposed Measure, consulting on the various provisions and bringing regulations into force. I gave a commitment that I would write to the Committee once we had more information on these timings. This work has now been completed and a summary of this information is set out below.

Waste Targets

As I suggested at the Committee session on 11th March, there are some items of subordinate legislation which we would wish to make as soon as possible after the Measure has been commenced (commencement will take place 2 months after the Measure has received Royal Approval). There are four sets of such regulations/ orders under the waste targets provisions of the Measure:

- Section 3 (6) - Power to make provision to establish whether waste is recycled; prepared for re-use; or composted.
- Section 3 (8) (c) - Power to specify other waste that may be included in the definition of local authority municipal waste for the targets under section 3.
- Section 5 (1) (a) to (g) - Power to make provision about monitoring and auditing compliance with targets.
- Section 6 (2) - Power to impose penalties on local authorities for failure to meet the recycling, preparation for re-use and composting targets under section 3 or other waste targets under section 4.

Bae Caerdydd • Cardiff Bay
Caerdydd • Cardiff
CF99 1NA

English Enquiry Line 0845 010 3300
Llinell Ymholiadau Cymraeg 0845 010 4400
Ffacs * Fax 029 2089 8129
PS.minister.for.ESH@wales.gsi.gov.uk

Wedi'i argraffu ar bapur wedi'i ailgylchu (100%)

Printed on 100% recycled paper

We would be looking to consult on drafts of the above regulations and orders towards the end of 2010 with a view to making the subordinate legislation before the next Assembly elections.

There are no plans at present to implement the other subordinate legislation powers contained under the waste targets provisions of the Measure, namely section 3 (4) and section 4.

Site Waste Management Plans

We will be using section 12 (1) of the Measure to make regulations requiring Site Waste Management Plans in Wales. The proposed Measure restates the existing provisions of section 54 of the Clean Neighbourhoods and Environment Act 2005 which provides the Welsh Ministers with the power to make regulations requiring Site Waste Management Plans. The proposed Measure also provides a new power for the Welsh Ministers to make regulations about fees and charging schemes in relation to Site Waste Management Plans in Wales. We are aiming to consult in the autumn of 2010 on the draft regulations. Subject to the outcome of the consultation, we would be looking to make these regulations in 2011.

Single Use Carrier Bags

As regards single use carrier bags, the power contained in section 1 of the proposed Measure will only be used if voluntary arrangements with retailers, on the use of the net receipts from the charge, are not satisfactory. As I have previously stated, there are no plans to implement this provision at present.

Landfill

Section 9 (1) of the proposed Measure contains a broader power for the Welsh Ministers to enable them to introduce a ban or restriction on the deposit of specified kinds of waste to landfill in Wales. Any proposed landfill ban or restriction will be informed by the joint consultation currently being undertaken with Defra on possible landfill restrictions. The consultation began on 18th March and is due to end on 10th June 2010. Decisions about any possible bans or restrictions will be taken following the completion of that consultation.

Guidance

The Committee also asked about the timing of any guidance issued under the Measure. On waste targets, it is intended that the subordinate legislation described above would set out as much detail as possible and therefore at present we are not intending to issue any guidance on these issues. However in drafting the regulations/ orders we will consider whether there would be a need to provide any further clarification in guidance. Therefore this issue will be considered in more detail at that juncture.

As explained above, we will be consulting on draft regulations in relation to Site Waste Management Plans in the autumn of 2010. Following the end of consultation we will assess whether any guidance would be required on any aspect relating to Site Waste Management Plans.

On single use carrier bags and landfill, as we are not intending to implement these provisions in the foreseeable future, there are also no plans to issue any guidance.

We will consult in due course on any guidance issued under the Waste Measure.

Explanatory Memorandum

I also undertook to revise the Explanatory Memorandum to take account of Members' comments. Firstly, there was concern about the complexity of the section of the Regulatory Impact Assessment (RIA) covering waste targets and there was a suggestion that the RIA be revised so as to provide greater clarity. The particular section of the RIA has been revised as a result of these comments. The text is now more user-friendly than originally drafted and the RIA has been shortened. The Explanatory Memorandum will be laid formally before the National Assembly following Stage 2 proceedings, but to assist the Committee with its Stage 1 scrutiny, I attach the revised section of the RIA at Annex A to this letter.

The Committee also asked whether the Memorandum could refer to the protocol which we are intending to put in place on the penalties for failure to meet waste targets, in a similar way to the existing protocol for the Landfill Allowances Scheme. The Explanatory Memorandum has been amended to take account of this issue. I attach the relevant section of the Memorandum at Annex B which will be included under the waste targets heading under section 3 'purpose and effect of the legislation'.

I hope this additional information is helpful to the Committee. If you have any further questions, I would be delighted to answer them at the evidence session on 5th May.

A copy of this letter also goes to Janet Ryder, Chair of the Constitutional Affairs Committee and to Angela Burns, Chair of the Finance Committee to assist both Committees in their consideration of the proposed Measure.

Kass,


Jane Davidson AM

Y Gweinidog dros yr Amgylchedd, Cynaliadwyedd a Thai
Minister for Environment, Sustainability and Housing

Waste (Wales) Measure 2010 - Regulatory Impact Assessment for the waste target provisions

8.2 Waste targets

Background

- 8.2.1 The proposed Waste (Wales) Measure 2010 will establish statutory targets for local authorities for the percentage of municipal waste recycled, prepared for re-use and composted (including any other form of transformation by biological processes). (For ease of reference, the term “recycling” used in this RIA covers all these operations).
- 8.2.2 This RIA is informed by two impact assessments undertaken by Eunomia Consulting on behalf of the Welsh Assembly Government in relation to the recycling, preparation for re-use and composting targets¹.

Purpose and Intended Effect

- 8.2.3 The overall objective of this proposal is to ensure that municipal waste in Wales is managed in a way that delivers the most beneficial environmental outcomes. Achievement of the targets is therefore likely to:
- Reduce greenhouse gas emissions
 - Reduce Wales’ ecological footprint
 - Save valuable and increasingly scarce resources
 - Result in less costly management of waste from the perspective of local authorities (and hence, taxpayers) through avoiding the rising costs for treatment / disposal of waste.
 - Support the principles and delivery of the Landfill Directive
 - Support the principles and delivery of the Revised Waste Framework Directive
 - Support delivery of the current overarching Waste Strategy for Wales (*Wise about Waste*) and the proposed new overarching Waste Strategy document (*Towards Zero Waste*)

¹ *Scoping New Municipal Waste Targets for Wales*, Eunomia, 2007; *Wales Targets Impact Assessment*, Eunomia, 2010.

Rationale for Government Intervention

8.2.4 Existing policies do not take full account of the negative environmental externalities associated with residual waste disposal or the positive externalities associated with recycling². Placing recycling targets on a statutory footing is intended to make clear to local authorities that high rates of recycling are desirable in a context where the appropriate incentives are not in place. The rationale for the Assembly Government's waste policy is therefore to support the development of more sustainable waste management practices, thereby improving environmental outcomes across Wales.

Policy Options

8.2.5 Two different options have been considered. These are:

Option 1 – Do Nothing

8.2.6 Under this scenario it is assumed that municipal waste recycling rates peak and plateau at 52% in 2012/13. This is consistent with the progress made by local authorities in the recent past in respect of recycling and the modelling work into achieving higher recycling rates. The scenario assumes that no targets are implemented beyond those already in place.

Option 2 - Through the proposed Waste Measure, make the recycling, preparation for re-use and composting targets statutory and make local authorities that fail to meet the targets liable to financial penalties

8.2.7 Under this scenario it is assumed that municipal waste recycling rates increase incrementally in line with the targets set out in *Towards Zero Waste*. These are outlined in Table 2 below.

² An externality occurs whenever the activities of one party affect another party in ways that are not reflected in market prices. A classic example of a negative externality is the uncompensated impact of river pollution by an industry on other river users (e.g. fishermen etc).

Table 2: Wales Targets for Recycling Municipal Waste³

Year	2009/10	2012/13	2015/16	2019/20	2024/25
Recycling Target	40%	52%	58%	64%	70%

8.2.8 The new municipal waste recycling targets for Wales were scoped and informed by the 2007 Eunomia report, commissioned by the Welsh Local Government Association. There are a wide range of results presented in this report, including an analysis of the component costs of meeting different recycling targets by 2024/25. This was done from a baseline of 25% recycling of municipal waste in 2006/07. The costs are therefore projected over a period of 18 years. The all Wales cost trajectories, from a 2006/07 baseline, are set out in Figures 1 and Table 3 below (Table 3 sets out the detailed costs for different recycling targets – these are reflected in the various cost trajectories in Figure 1).

8.2.9 The report concluded that the cost of recycling at both a 40% rate (the current recycling rate) and a 50% rate (close to the 52% rate at which recycling will peak and plateau under current interventions) is higher than at a 70% rate. By 2024/25, the 40% recycling cost will be over £92m per annum whereas the cost of recycling at a 70% rate will be approximately £89m. Working towards and achieving a 70% rate by 2024/25, from a 2009/2010 baseline, will result in £78m savings compared with recycling at the current rate of 40%, and £59m savings compared with recycling at a rate of 50%. There are a number of reasons for this. Waste which is recycled will provide additional income which would not be the case if waste was landfilled or incinerated. Furthermore, financial savings can be made by local authorities if waste is recycled rather than landfilled as they will not have to make landfill tax payments and gate fees. The full report should be consulted to gain a better understanding of how achieving different recycling rates affects all Wales costs.

³ The recycling targets include recycling of bottom ash (a type of ash that is found at the bottom of the combustion chamber in an incinerator). This is assumed to be around 3% in 2024/25, bringing the figure for recycling through means other than bottom ash down to 67% in 2024/25.

The recycling targets do not include the recycling of inert waste from construction and demolition activities.

The definition of municipal waste, for the purpose of this analysis, is taken to be the waste collected by, or on behalf of, local authorities.

There would be an annual reduction of 1% in the municipal waste collected by local authorities, reflecting recent trends.

Figure 1: Cost Trajectories for Municipal Waste Recycling Targets by 2024/25 relative to 2006/7 (annual increase in real £ 2006/7)

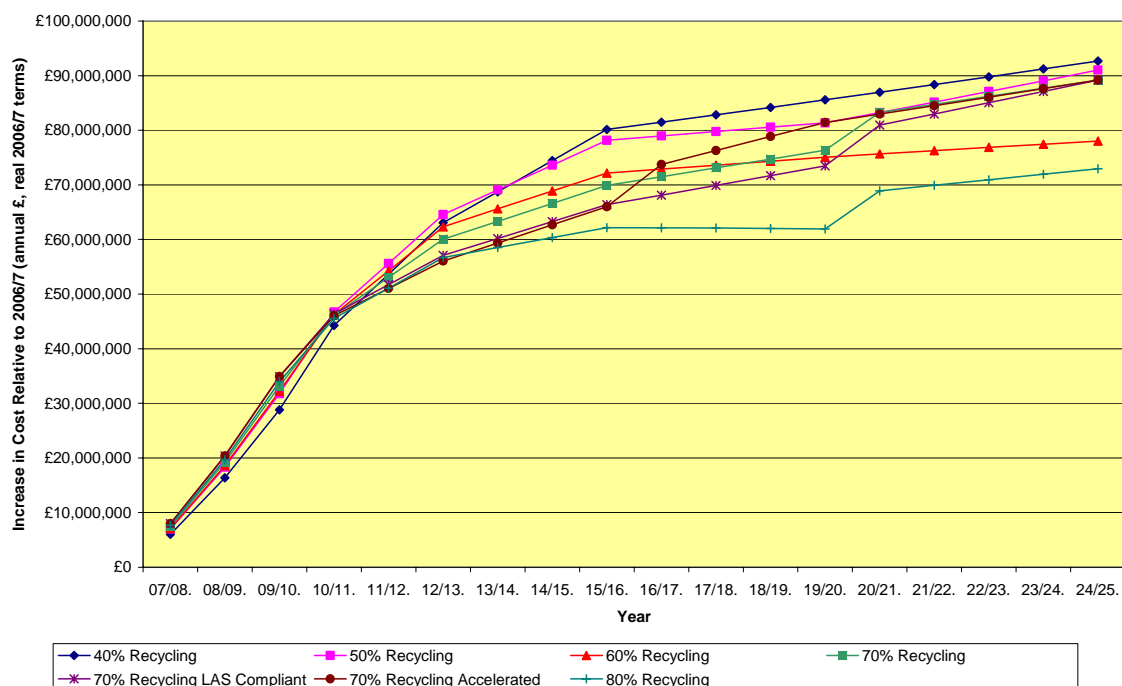


Table 3: Total Wales Year on Year Costs to achieve various Municipal Waste Recycling Targets by 2024/25, relative to 2006/07

£million	40%	50%	60%	70%	80%
2007/08	6.0	7.0	7.1	7.4	7.7
2008/09	16.4	18.3	18.6	19.2	19.7
2009/10	28.8	31.8	32.2	33.2	33.9
2010/11	44.3	46.7	46.3	46.1	45.6
2011/12	53.6	55.6	54.2	53.1	51.1
2012/13	63.1	64.6	62.3	60.0	56.7
2013/14	68.7	69.1	65.6	63.3	58.5
2014/15	74.4	73.6	68.9	66.6	60.4
2015/16	80.1	78.2	72.2	69.9	62.2
2016/17	81.5	79.0	72.9	71.5	62.2
2017/18	82.8	79.8	73.6	73.1	62.1
2018/19	84.2	80.6	74.3	74.7	62.0
2019/20	85.6	81.4	75.1	76.4	61.9
2020/21	87.0	83.2	75.7	83.3	68.9
2021/22	88.4	85.2	76.3	84.7	69.9
2022/23	89.8	87.1	76.9	86.2	70.9
2023/24	91.2	89.0	77.4	87.7	71.9
2024/25	92.7	91.0	78.0	89.2	73.0
TOTAL	1,573.9	1,201.2	1,107.6	1,145.6	980.6

8.2.10 Two paragraphs from the Eunomia report below illustrate the key findings:

"The results indicate that there would be clear benefits in moving recycling rates to a higher level. However, the degree to which 80% recycling could be achieved at an all-Wales scale does remain questionable IF one assumes the composition of waste does not change. On the other hand, composition undoubtedly will change, the key issue being how to influence this change in a positive manner. Therefore, an 80% target as an aspiration for the long-term might not be so foolish."

"It would appear, given the cost profiles examined here, that pushing for higher recycling rates in the revised Waste Strategy is a sensible approach, and one which, if it is supported by policy changes which are likely to be conducive to high capture rates for a wide range of materials, will deliver savings relative to lower cost recycling systems."

8.2.11 In parallel with this report, the Environment Agency modelled the environmental (including climate change) impacts of achieving different recycling targets⁴. These showed that the environmental benefits increase as recycling targets increase.

8.2.12 Policy discussions took into account the findings of both the Eunomia and Environment Agency reports. The Eunomia report suggests that an 80% or 60% recycling target would have a lower total cost than a 70% target. However, in terms of the balance of achievability, whole system cost savings and environmental benefits it was decided that a target of 70% by 2024/25 would be the most appropriate for promoting the right balance of sustainable development outcomes.

8.2.13 The current financial climate that has affected the global economy since 2007 will have affected the scale of the financial benefits of high recycling, but does not alter the fact that financial benefits will result from high recycling. Fluctuations in materials prices, fuel costs and other factors have not affected the ranking of the different recycling targets in terms of financial benefits. It is worth noting that the 2007 report assumed a gradual increase in municipal waste. In practice, the volume of municipal waste has been declining which suggests that the cost trajectories have been over-estimated. It is also worth emphasising that the 2007 report was published before the 2009 and 2010 announcements of increases in the rate of landfill tax. As a result of these increases, the lower target rates for recycling municipal waste have become more costly compared with the higher target rates for recycling.

⁴ *Life Cycle Analysis of Municipal Waste Targets for Wales – Headline Results*, Environment Agency Wales, 2007

Costs

- 8.2.14 The 2007 Eunomia report considered the cost of recycling municipal waste at different rates. It did so from a 2006/07 baseline, working towards the achievement of the rates by 2024/25.
- 8.2.15 By contrast, the 2010 Eunomia report specifically considers the costs of meeting the 70% recycling rate from a 52% baseline (the target recycling rate for 2012/13). The 52% rate for recycling is used as the baseline on the basis that recycling rates will peak and plateau at this level as a result of existing interventions such as the investment in waste infrastructure and incentivizations to recycle such as landfill taxes. The 2010 report therefore measured the cost of recycling the additional 18% of waste to get to the 70% target level.
- 8.2.16 The costs for the 2010 report were modelled for two cost sensitivities: [1] Social costs (all taxes and subsidies excluded i.e. landfill taxes are not taken into account as they are regarded as transfer payments); and [2] Private costs (taxes and subsidies included, weighted average cost of capital reflecting figures typical of the private sector in this area).
- 8.2.17 Under HM Treasury's Green Book guidance, greater weighting should be attached to the social costs as this is the metric that is used in government decision making. Private costs are relevant to affordability, which is particularly important from the perspective of local authorities in relation to landfill tax.
- 8.2.18 The 2010 report also modelled the cost of recycling municipal waste against two alternative possibilities for the treatment of residual waste: [1] Where the additional material being recycled is assumed to have otherwise been landfilled; and [2] Where the additional material being recycled is assumed to have otherwise been incinerated.
- 8.2.19 It is necessary to model and quantify these alternative waste treatment scenarios because waste that isn't recycled would need to be managed through alternative methods and we cannot be clear at this point what method would be chosen by local authorities.
- 8.2.20 The Net Present Value (NPV) of the costs and benefits has been calculated using HM Treasury's central discount rate of 3.5% to reflect the social time preference rate. Discounting is considered necessary when considering costs and benefits that occur over a period of time. It is designed to address issues raised by social time preference, which suggests that society values immediate economic consumption at higher levels than future economic consumption.

Option 1 – Do Nothing

Compliance Costs

- 8.2.21 There are no additional costs associated with this option. It is assumed that recycling, preparation for re-use and composting rates would peak and plateau at 52%, this as a result of existing policy interventions. Continuing to recycle at this rate will not realise the cost savings envisaged by higher rates of recycling.
- 8.2.22 The Assembly Government is providing significant financial support to enable local authorities to recycle more waste. An additional £272m was made available to local authorities through the Sustainable Waste Management Grant (SWMG) between 2001/02 and 2009/10 to support improvements in recycling rates. The SWMG for local authorities in 2010-11 is £73m.
- 8.2.23 In addition to the existing investment to support the recycling of municipal waste, the cumulative impact of landfill taxes is of particular importance in driving higher recycling rates. Landfill tax for active waste (including refuse from local authorities) is set at £40 per tonne for 2009/10 and is scheduled to rise by £8 per tonne per year until at least 2013, when the rate will reach £72 per tonne. In the March 24th budget the Chancellor extended the escalator until 2014/15 when landfill tax will be £80/tonne. The increased costs of landfilling are proving to be an important economic disincentive and the year on year increases in the tax will encourage the adoption of more sustainable forms of waste management.

Option 2 – Through the proposed Waste Measure, make the recycling, preparation for re-use and composting targets statutory and make local authorities that fail to meet the targets liable to financial penalties

Compliance Costs - Targets

- 8.2.24 The financial costs of meeting the 70% recycling rate by 2024/25, from a 52% baseline, are set out in Table 4 of this RIA. Table 4 models the costs of Option 2 relative to Option 1 (Do Nothing). The Table considers cost changes in kerbside collection, civic amenity site collection and bulky wastes, as well as changes in the cost of residual waste management in terms of gate fees and landfill taxes. The total costs of achieving the 70% recycling rate have been modelled against alternative methods of disposal, namely landfill or incineration. This has been done for two cost sensitivities, where taxes and subsidies are excluded (social costs) or included (private costs).
- 8.2.25 If we exclude taxes and subsidies (the social metric), the model suggests that additional financial costs will be incurred as a result of implementation of the recycling targets. The additional costs of

recycling are relatively high where waste would otherwise be landfilled since the costs of landfill are very low if one excludes the landfill tax from the analysis (which is the case under the social metric). The costs are far more marginal where waste is incinerated. In summary, the net costs of recycling the additional 18% of municipal waste to reach the 70% target range would range from £7.8m to a maximum of £35.9m (depending on whether the recycled waste would have been incinerated or sent to landfill), the costs being spread over a period of around 12 years.

8.2.26 If, however, we include taxes and subsidies in our cost assessment (the private metric), thus enabling us to reflect the cost of landfill taxes, there would be a total compliance cost-saving of up to £40m. The savings associated with recycling are similarly large irrespective of whether the recycled waste would otherwise have been landfilled or incinerated. It should be noted that the figures in Table 4 do not include the environmental benefits to be accrued from higher recycling rates. These are considered in the benefits section of this RIA.

8.2.27 The cost of complying with these targets would fall to local authorities. In practice, the Assembly Government is providing the majority of the targeted funding required to enable local authorities to make the appropriate transformational changes in their waste management approaches to enable them to achieve the target rates. As noted above, pursuing these higher recycling rates should result in long-term cost savings.

Table 4: Change in waste management costs to achieve 70% recycling rate relative to the baseline, 2009/10 – 2024/25 ⁵

£million	Social Costs (all taxes and subsidies excluded)		Private Costs (all taxes and subsidies included)	
	Avoided Disposal as Landfill	Avoided Disposal as Incineration	Avoided Disposal as Landfill	Avoided Disposal as Incineration
Change in Kerbside Collection Costs	78.3	78.3	78.3	78.3
Change in Civic Amenity Site Collection Costs	16.4	16.4	16.4	16.4
Change in Bulky Waste Costs	1.3	1.3	1.3	1.3
Change in Cost of Residual Waste management	-40.4	-82.5	-154.5	-151.6
<i>of which: gate fee</i>	-40.4	-82.5	-44.7	-151.6
<i>landfill tax</i>	0.0	0.0	-109.9	0.0
Total Change in waste management costs	55.5	13.4	-58.6	-55.7
Total Costs (Net Present Value) 2009/10 - 2024/5	£35.9	£7.8	-£40.2	-£38.3
Annualised Costs (Net Present Value)	£3.0	£0.6	-£3.3	-£3.2

Note: positive figures imply costs, negative figures indicate benefits.

Compliance Costs - Penalties

8.2.28 The Welsh Ministers will have a discretionary power to impose financial penalties on local authorities in the event that they fail to meet targets set under the proposed Measure. Failure to reach the targets could therefore potentially result in additional costs being placed on local authorities. The detail of any penalty regime will need to be set out in regulations, consulted upon and approved by the National Assembly. The penalty could be set at £200 / tonne of shortfall which is the same amount as the financial penalty for failure to meet targets under the Landfill Allowances Scheme (SI 2004/1490 [W.155] Landfill Allowances Scheme (Wales) Regulations 2004). No penalties have been imposed under the Landfill Allowances Scheme as local authorities have in practice met the targets under the Scheme and financial penalty is seen as a sanction of last resort. The earliest that the statutory targets and penalties could apply would be in relation to the 2012/13 (52% target rate). The financial penalty would apply consistently to all authorities but the differing amount of waste collected by various local

⁵ Negative values denote negative costs, i.e. net benefits.

Figures have been rounded to nearest £100,000, numbers may not sum due to rounding
Landfill tax is assumed to be maintained in real terms once it reaches a nominal level of £72 per tonne in 2013/14.

All costs are in real 2009/10 sterling terms. GDP deflators have been used to uplift costs from the earlier work as appropriate.)

authorities across Wales mean that a failure to meet a statutory target by, for instance, 1% would have different implications for different local authorities. Based on the collected waste data for 2007/08, penalties for failing to meet the statutory target by 1%, if set at £200 / tonne of shortfall, would range from £69,930 (for Merthyr Tydfil, the authority collecting the least amount of waste) to £363,542 (for Cardiff, the authority which collects the most waste).

Administration and other Costs

8.2.29 In terms of administration costs, the collection and reporting of data in relation to the recycling of municipal waste is already undertaken by local authorities as part of the WasteDataFlow system. There are therefore no additional costs, either to Local Authorities or the Assembly Government, associated with the collection and reporting of data in relation to the statutory targets in the proposed Measure.

8.2.30 There may be enforcement costs associated with the provisions on Waste Targets. Any policy or legal work associated with enforcement would be internalised by the Welsh Assembly Government. The main cost would be in relation to the preparation of the appropriate written documentation setting out the liability of a particular local authority to a penalty and the amount due. This could be estimated at 1 day for a G7 policy official at a cost of approximately £240 a day and 1 day for a G7 lawyer, also at a cost of approximately £240 a day.

Benefits

8.2.31 The modelling of environmental benefits has been based upon work undertaken by Eunomia on behalf of the UK Government and the devolved administrations which looks at the costs and benefits of landfill bans in the UK. The main impacts which have been monetised are:

- Changes in greenhouse gas emissions;
- Changes in conventional air pollutants; and
- Changes associated with the application of compost / digestate to land.

8.2.32 For carpet and underlay, lead/acid batteries, oil and other potentially hazardous material, we have used nominal values for benefits of £5 per tonne, which is much lower than for the other materials. This is due to the fact that no credible studies could be found which would enable the calculation of the external costs of recycling these materials. Given their non-biodegradable nature, we anticipate benefits arising from these.

8.2.33 Table 5 shows that net benefits (negative costs) will be realised if the recycling targets in question are implemented. The monetised benefits range from £72m to £103m, depending on whether the additional

recycling would otherwise have been landfilled or incinerated. The modelling results indicate that the net benefits are greater in the scenario where the additional recycling would otherwise have been landfilled.

Table 5: Environmental Costs / Benefits⁶

£million		Social Costs (all taxes and subsidies excluded)	
		Avoided Disposal as Landfill	Avoided Disposal as Incineration
Environmental Costs/Benefits from Recycling Targets	Total Costs (Net Present Value) 2009/10 - 2024/5	-£102.9	-£71.7
	Annualised Costs (Net Present Value)	-£8.5	-£5.9

Note: positive figures imply costs, negative figures indicate benefits.

Conclusion

8.2.34 A summary of the costs and benefits of achieving the 70% recycling rate by 2024/25 (Option 2) is set out at Table 6. Table 6 sets out the net social costs, which are the sum of the financial and the environmental costs and benefits. Properly, from the perspective of a cost benefit analysis, one should consider the sum of the two only where the costs are estimated through the social metric. However, for transparency, results for both the private and social metrics are set out, not least because impact assessments generally seek information regarding 'market costs'.

8.2.35 The results of the modelling indicate significant social benefits, irrespective of whether taxes and subsidies are excluded or included (the social and private cost metrics) arising from a realisation of the Welsh Assembly Government's recycling targets relative to the baseline scenario. If taxes and subsidies are excluded (the social cost metric), there is very little difference in the net social benefits between the case where the residual waste is landfilled and where it is incinerated. The reasons for this are clear to see from Table 6: the financial costs are higher where the avoided management route is landfill, but this is offset by greater environmental benefits. Avoiding incineration, on the other hand, incurs lower additional costs, but also, less environmental benefit. The net position is similar for the two treatment options.⁷

⁶ Private costs, which factor in taxes and subsidies, have not been included in the analysis of Environmental benefits as there are no relevant taxes and subsidies to be considered.

⁷ It should be noted that this is entirely consistent with the general literature in this area. The case, on grounds of net social costs, for landfill or incineration generally comes down to one of whether the additional environmental benefit of incineration is justified by the additional (under social metrics) cost. Several studies have suggested that this is not always the case. References:

External Costs of Landfill and Incineration: Final Report to the European Commission; COWI,

8.2.36 If one looks at the private cost metric, it appears that the overall benefits to society are greater in the scenario where the additional material recycled would otherwise have been landfilled, than if it were otherwise incinerated. This is, however, somewhat artificial, since it merely reflects the fact that the environmental costs of landfilling are far more effectively internalised in current market prices (through the landfill tax) than are the externalities of incineration.

8.2.37 In summary, the adoption and achievement of a 70% recycling rate is expected to result in compliance cost-savings for local authorities, as well as generating wider environmental benefits for society, compared to an approach of maintaining the current policy interventions in relation to recycling, preparing for re-use and composting of municipal waste.

Table 6: Summary of Costs / Benefits

£million	Social Costs (all taxes and subsidies excluded)		Private Costs (all taxes and subsidies included)	
	Avoided Disposal as Landfill	Avoided Disposal as Incineration	Avoided Disposal as Landfill	Avoided Disposal as Incineration
Total Costs / Benefits (NPV) 2009/10 – 2024/25				
Financial Costs	35.9	7.8	-40.2	-38.3
Environmental Costs	-102.9	-71.7	-102.9	-71.7
Net Social Costs	-67.0	-63.9	-143.2	-109.9
Annualised Costs / Benefits (NPV)				
Financial Costs	3.0	0.6	-3.3	-3.2
Environmental Costs	-8.5	-5.9	-8.5	-5.9
Net Social Costs	-5.5	-5.3	-11.8	-9.1

Note: positive figures imply costs, negative figures indicate benefits.

2000.

Combining the Government's two health and environment studies to calculate estimates for the external costs of landfill and incineration, HM Customs & Excise, 2004.

Burn or bury? A social cost comparison of final waste disposal methods, E. Dijkgraaf, and H. Vollebergh, *Ecological Economics*, 50, pp.233-247, 2004.

Literature review of social costs and benefits of waste disposal and recycling, E. Dijkgraaf and H. Vollebergh in *Rethinking the Waste Hierarchy*, EAI: Copenhagen, pp. 80-98, 2005.

Combining the Government's Two Health and Environment Studies to Calculate Estimates for the External Costs of Landfill and Incineration, HM Customs & Excise, 2004.

Specific Impact Tests

Competition Assessment

We do not expect there to be any significant impacts on competition from the targets.

Small Firms Impact Test

We do not expect there to be any significant impacts on small firms from the targets. Indeed, this may reduce costs to businesses to the extent that those businesses using local authority collections may find that costs are reduced where they engage fully with a comprehensive recycling service.

Legal Aid

We do not consider that the targets will have any impact on the workload of the courts or on legal aid.

Sustainable Development

The targets clearly contribute to the principles of sustainable development by encouraging greater resource efficiency.

Carbon Assessment

The valuation of benefits associated with greenhouse gas emissions has been included in the above assessment of environmental benefits. The effects of the targets are positive in this respect, as shown in Table 6, which apply to the end year of 2024/25.

Table 6: Greenhouse Gas Emissions Savings (tonne CO₂ equ 2024/25)

	Excluding Biogenic Carbon	Including Biogenic Carbon
Savings from Avoided Landfilling	1,670,275	2,790,497
Savings from Avoided Incineration	488,253	1,834,457

Other Environmental Impacts

The valuation of benefits associated with other environmental effects (than greenhouse gas-related ones) has been included in the above assessment of environmental benefits. The effects of the targets are positive in this respect. It should be noted that the monetised environmental effects do not include matters such as changes in biodiversity and impacts on soil and water quality.

Health Impact Assessment

We do not consider that this provision will give rise to a significant demand on health and social care services.

Race Equality

We do not consider that the targets are of relevance to the Government's responsibilities under the race equality duty. Local authorities are already familiar with seeking to communicate to households from diverse ethnic backgrounds and are expected to continue (in the baseline as well as where the proposed targets are implemented).

Disability Equality

We do not consider that the targets will have any disability equality impacts. Local authorities are expected to continue to take such factors into account in the specific design of services for those affected by various disabilities.

Gender Equality

We do not consider that the proposed targets will have any relevant gender equality impacts.

Human Rights

We have considered the human rights implications flowing from this provision and have concluded that it does not infringe the European Convention of Human Rights.

Rural Proofing

In principle, there may be issues of relevance to whether or not targets can be met in different situations in Wales. However, international evidence suggests that it is more likely that targets would be met in rural and suburban areas than in urban ones⁸. Hence, the targets are not likely to place rural areas at a relative disadvantage.

In terms of costs, although there is a view that rural areas face higher collection costs than urban ones, the evidence for the suggestion that the cost of achieving specific rates of recycling is higher in rural areas than in urban ones is actually rather weak. The cost of meeting recycling targets has to be considered against a counterfactual where these targets are not met, but where collection services are still operated. The evidence suggests that the increase in collection costs is unlikely to be significantly greater in rural than in urban areas as long as services are efficiently designed. Furthermore, rural areas may find that avoided costs of disposal are higher than they would be in urban areas, especially as landfill becomes less viable (not to mention, desirable from an environmental perspective) as an option.

Consequently, we expect the effects on rural areas to be such that the incremental costs of achieving the targets are unlikely to be higher than in urban areas (and in cases where they are, not significantly so), whilst the likelihood of achieving the targets is, if anything, greater in rural than in urban areas. The international (and UK) evidence in respect of this latter point is particularly strong.

⁸ *High Diversion of Municipal Waste: Is It Achievable?*, David Davies Associates, 2003, Resource Recovery Forum.

Penalties Protocol

Note: It is proposed that the text below will be added to the waste targets heading under Section 3 of the Explanatory Memorandum 'Purpose and intended effect of the legislation'.

The Welsh Assembly Government will establish a non-statutory protocol for the implementation of any penalties imposed under the provisions of the proposed Waste (Wales) Measure 2010. The protocol will be similar to the existing protocol in relation to the Landfill Allowance Scheme (Wales) Regulations 2004. The existing protocol describes how the Welsh Assembly Government will respond when a local authority has been identified as potentially not meeting their requirements under The Landfill Allowances Scheme (Wales) Regulations 2004.

The Landfill Allowances Scheme protocol sets out the respective roles of the organisations involved in the process of reporting and monitoring waste data and also the roles of those involved in considering whether a local authority has not met its requirements. The protocol also describes a series of steps which will be adopted in the event that a local authority exceeds their landfill allowances. The protocol was agreed by the Welsh Local Government Association.