



31st May 2013

To: European Commission, Directorate General for the Environment, Unit C.2 – Waste Management,
by e-mail to: ENV-PLASTIC-GREEN-PAPER@ec.europa.eu

Dear European Commission,

RE: Public consultation on the Green Paper on Plastic Waste

UKWIN was founded in March 2007 to promote sustainable waste management and inform environmental decision making. UKWIN currently has more than 100 member groups across the UK.

UKWIN welcomes the insightful response from GAIA to this Green Paper.

The Green Paper addresses a situation where plastics are lost from what should be a circular economy. Such losses are symptomatic of a market distorted by the failure to fully allocate all of the environmental costs and in which an inadequately regulated ‘free for all’ allows the release into the marketplace of diverse plastic types without effective systems for ensuring that they can be returned and recycled, as well as reduced. The Green Paper covers both the risks to the environment that plastics lost to the circular economy present, and the economic implications. UKWIN now looks for the actions needed to curtail and ultimately prevent such losses, and to achieve a circular economy where such resources are not squandered through incineration.

Q1. Can plastic be appropriately dealt with in the existing legislative framework for waste management or does the existing legislation need to be adapted?

1. UKWIN endorses GAIA’s response to this question. It is clear from UKWIN’s experience in the United Kingdom that the existing legislation on its own is insufficient as it does not result in high quality source separation, high quality recycling, or the designing out of material that cannot economically be recycled.
2. It is clear from Section 5.7 of the Green Paper that plastics should be contained within closed loop recycling and that what enters the marketplace should be returned (and be suitable to be returned) after it has served its purpose. However, the existing legislation does not prevent plastics ending up as ‘residual waste’ without any prospect for high quality recycling.
3. Barriers to investment in recycling of plastics in the United Kingdom include the presence of incineration capacity, the long-term investment in that incineration capacity (e.g. in the form of 25-30 year local authority waste management contracts), and the true costs of incineration not being reflected in the price of treatment.
4. Taken together, these factors serve to disincentives individual local authorities and businesses from maximising the high quality recycling of plastics, and in turn this reduces the market for such services and therefore hampers the investment in research and development of technologies and the construction of facilities needed to get the most out of plastics in the UK.

5. Introducing the appropriate education, collection, sorting and reprocessing infrastructure to improve and increase the recycling of plastics requires financial investment and involves some element of economies of scale.
6. In the UK, as elsewhere in Europe, there is incineration capacity with artificially low marginal costs because the majority of the true costs are not allocated to a per-tonne gate fee. This is due, for example, to the presence of externalities (such as that recognised by Defra in respect of the GHGs produced when burning plastics¹), Government subsidies, and because once incineration capacity is paid for (or is committed to being paid for) then the amount charged per tonne is artificially lowered (e.g. as part of a put-or-pay clause).
7. In essence, this means that the ‘incentives hierarchy’ does not match the waste management hierarchy, and therefore environmentally harmful activities are improperly encouraged. It is UKWIN’s experience that this has impeded the recycling of plastic waste across the UK.
8. UKWIN is aware of the views expressed by many in British industry that incinerators: “...must demonstrably avoid competing with upper levels of the waste hierarchy – waste prevention, reuse and recycling/composting – by avoiding creating a demand for waste that could otherwise have been returned to the economy. In an increasingly resource constrained future it makes little sense to burn materials which can be reused or recycled elsewhere...”²
9. Getting an incinerator built is very expensive, and the risk of the incinerator not being needed is usually transferred at least in part to local councils to give the operator and their funders a more secure return on their investment. Rather than simply charging a gate fee for each tonne of waste burned and operating as a ‘merchant’ facility, many incinerator companies and their financial backers require local councils to enter into long-term contracts to ensure that their incinerators are paid for either directly or indirectly.
10. The most basic arrangement would be that the local council directly pay some or all of the capital or operational costs incurred in exchange for free or discounted usage of the facility, but there are more complex arrangements. This could include a commitment that the council pays for the availability of incineration capacity even if the council does not use that capacity, possibly with a small rebate if unneeded capacity is used by a third party. Alternatively, a local council might agree to a minimum tonnage guarantee that requires the council to supply at least a certain amount of waste and pay for it at an agreed gate fee, sometimes with a banding system so that if the council sends less waste then they pay more per tonne.
11. Whatever the details, the end result is that a Local Authority has higher fixed costs and lower variable costs. These arrangements reduce the financial incentive for those councils to avoid incineration. Money invested in incineration cannot also be invested in reduction, re-use and recycling.

¹ The Economics of Waste and Waste Policy. Waste Economics Team Environment and Growth Economics, Defra (June 2011). Available from: <http://www.defra.gov.uk/publications/files/pb13548-economic-principles-wr110613.pdf>

² From Waste to Resources: Recommendations for Developing the Resource Security Action Plan. August 2012, a joint statement from ADS (UK Aerospace, Defence, Security & Space Industries), British Glass, British Plastics Federation, Confederation of Paper Industries, EEF (formerly known as the Engineering Employers’ Federation), Packaging Federation, UK Steel, Metal Packaging Manufacturing Association, Institute of Environmental Management and Assessment, Resource Association, et al. Available from: http://www.businessgreen.com/digital_assets/5734/From_waste_to_resources.pdf

12. Where there is 'surplus' incineration capacity, alternative waste to meet the shortfall may either be unavailable or the gate fee would be insufficient to pay for the infrastructure, meaning the original council will end up paying for waste infrastructure that it does not use or would not have used if it had invested in diverting waste from incineration, for example by increasing the range of plastics accepted from businesses and households.
13. Simply put, an opportunity cost of investing in incineration capacity is that the financial benefits of reduction, reuse and recycling of plastics will be reduced. This is one reason why it is important to have legislation to ensure that plastics are recycled rather than relying on 'market forces' that are in many instances distorted at the expense of reduction and recycling.
14. However, that is not to say that efforts should not also be made to ensure that financial and policy drivers are reworked to favour the top tiers of the hierarchy over waste incineration. UKWIN notes the Chartered Institution of Water and Environmental Management's observation that: "...There is a lack of clear policy on waste planning and this has led to inappropriate investment in handling and treatment technologies. Public funding from the EU budget needs to be prioritised to activities higher up the waste hierarchy (for example to re-use centres over waste disposal facilities). Currently most investment is directed to energy from waste because of the potential for the Renewable Obligation, feed-in-tariffs and Renewable Heat Incentive and this conflicts with the Waste Hierarchy..."³

Q3. Would full and effective implementation of the waste treatment requirements in the existing landfill legislation reduce sufficiently current landfilling of plastic waste?

15. No, and it could have adverse unintended consequences. As GAIA points out, existing landfill legislation focuses on diverting biodegradable municipal waste (rather than plastics) from landfill, and does nothing to ensure that waste is diverted from the residual waste stream.
16. Indeed, one of the main impacts of existing landfill legislation on plastics in the UK has been the construction of unnecessary incineration capacity designed to burn recyclable plastics. This is actually locking out the future recycling of plastics and keeps waste in the residual waste stream (for use as incinerator feedstock) that would otherwise have been reduced, re-used and recycled.
17. UKWIN notes the following comments made by individuals from the European Commission:
 - 17.1. "The big challenge is to reduce the amount of waste that is sent for incineration which could be recycled instead. In the UK there is a decrease in the proportion of waste that is going to landfill, which is good, but this is still a high proportion of the total waste...To solve this, the UK should look to reuse and recycling and not to overcapacity of incineration – Countries like Denmark and Switzerland are burning much more than they should and that's not good. There is an opportunity for the UK to take positively; I hope they will move in the right direction."⁴
 - 17.2. "We have to have a circular economy concept, so it's highly important that we're pumping back materials into the economy rather than burning or burying them."⁵

³ Less is More. CIWEM, March 2013. Available from: http://www.ciwem.org/media/719743/Less%20is%20More_online.pdf

⁴ European Commission spokesman. UK edges up European recycling league table (letsrecycle.com, 1 March 2012).

⁵ William Neale, member of cabinet for Potočník with responsibility for waste [Resourcefully efficient. Resource Magazine, Nov. 2012. Available from: http://www.resourceuk.com/article/Sustainability/Resourcefully_efficient-2449]

17.3. “Today, even in countries with high recovery rates, there is simply not enough plastic available for recycling because most of it goes to energy recovery. A dominance of energy recovery over recycling is not acceptable in the medium-term...”⁶

Q4. What measures would be appropriate and effective to promote plastic re-use and recovery over landfilling? Would a landfill ban for plastic be a proportionate solution or would an increase of landfill taxes and the introduction of diversion targets be sufficient?

18. UKWIN does not endorse the statements made in the consultation document that: “...it is particularly important to prevent landfilling of plastic waste. Any landfilling of plastic is an obvious waste of resources which should be avoided in favour of recycling, or of energy recovery as the next best option” and “Landfilled plastic contributes nothing to material recovery and energy recovery and is therefore highly resource inefficient”.
19. It is not resource efficient to build incineration capacity for recyclable waste, yet this is an unintended consequence of existing measures to discourage landfill. Within the context of the move towards a circular closed loop economy as part of a resource efficient Europe, preventing incineration capacity from impeding the long-term recycling of plastics is more important than discouraging the landfilling of plastics in the short term.
20. As such, whilst UKWIN does not advocate in favour of the long-term landfilling of untreated waste, the focus of new measures should not be on diverting plastic from landfill, but on diverting plastic from the residual waste stream.
21. Incineration, in its various forms, not only encounters the issue of the subsidies and ‘lock-in’ due to the large infrastructure costs and aforementioned contracts, incinerators also emit more CO₂ than treating waste through MBT (bio-stabilisation) to Landfill.
22. To quote the UK Government’s Economics of Waste and Waste Policy paper: “MBT (mechanical biological treatment)-landfill provides the best emissions performance in terms of the treatment/disposal of residual waste”⁷.
23. When landfill gas capture and carbon sequestration are taken into account, there are many instances where even sending untreated waste directly to landfill can be considered to have lower adverse climate change impacts than incineration⁸.
24. An unintended consequence of a ban or restriction on landfill could be further long-term ‘lock-in’ into incineration, which runs contrary to the waste hierarchy. To quote William Neale, member of cabinet for Potočnik with responsibility for waste: “...people get locked into their capital investments. So, for example, because some countries have massively invested in incinerators, they’re locked into that way of doing things. Take the south of Italy, where they have huge stockpiles of waste which need to be dealt with. Though the easiest solution might be to build some incinerators to burn it, it’s not optimal as it would lock them into that solution for the foreseeable future...”⁹

⁶ Janez Potočnik, European Commissioner for Environment [Any Future for the Plastic Industry in Europe? 21 Sept 2012].

⁷ The Economics of Waste and Waste Policy. Waste Economics Team Environment and Growth Economics, Defra (June 2011). Available from: <http://www.defra.gov.uk/publications/files/pb13548-economic-principles-wr110613.pdf>

⁸ Climate Change Impacts of Residual Waste Treatment. Eunomia, July 2011. Available from: http://ukwin.org.uk/files/pdf/Eunomia_July_2011_Climate_%20Change_Impacts.pdf

⁹ Resourcefully efficient. Resource Magazine, Nov. 2012. Available from:

http://www.resourceuk.com/article/Sustainability/Resourcefully_efficient-2449

25. UKWIN notes that the Green Paper states: “The present ratio between plastic recycling and plastic waste energy recovery could be improved via measures on separate collection, sorting and material recovery. A landfill ban generating an automatic preponderance of energy recovery over recycling would not be in line with the waste hierarchy. It may be useful to reflect on how economic instruments could be used to steer the waste flow through the waste hierarchy, avoiding a ‘vacuum cleaner effect’ in favour of waste to energy”.
26. In the UK, the Waste and Resources Action Programme (WRAP) has published a report (in November 2012) entitled ‘Landfill Bans: Feasibility Research – The environmental, economic and practical impacts of landfill bans or restrictions: research to determine feasibility’¹⁰ which highlights how focussing on landfill diversion could result in material being incinerated when the material should be reduced, reused, recycled or composted instead, and how any requirement to pre-sort waste should be applied to all forms of residual waste treatment, including incineration, and not just to landfill.
27. The WRAP report also suggests that such requirements should be applied to businesses as well as to local authorities, and indicates that emphasis should focus on designing out hard-to-recycle plastics.
28. Section 6.1 of this report states: “If the intention is to move materials further up the waste hierarchy and into recycling / composting / digestion, it is likely that other instruments will be required to drive this. In discussing how this might be achieved, we have suggested that an appropriate measure would be a ‘requirement to sort’ in support of a ban on unsorted wastes from landfill and other residual waste treatments. The ‘requirement to sort’, and the extension of such a requirement beyond waste that is destined for landfill only, are the measures which we concentrate upon here (though as hinted at above, other instruments could also be considered appropriate for the purpose)...”
29. Section 6.4 goes on to say: “If the intention of a landfill ban (and complementary measures) is to increase recycling of materials which are currently not captured from the waste stream, then it makes sense to apply any ‘requirement to sort’ across the board rather than simply to material that would otherwise have been landfilled...Consequently, all facilities intending to deal with ‘residual waste’ should be treated in the same way as landfills for the purpose of the measure where the express intention is to encourage recycling of materials. In essence, therefore, the ban on unsorted waste would amount to a requirement to sort the designated materials and products irrespective of the choice of residual waste treatment. As such, a logical counterpart to the ‘requirement to sort’ is the extension of the measure to all other residual waste treatment facilities (such as incineration, MBT, MHT, autoclaving, pyrolysis / gasification, etc.).”
30. Furthermore: “There are other reasons why it may be more beneficial and more productive to apply the requirement to sort to all businesses. The requirement to sort, particularly in the case of commercial wastes, should help to increase ‘economies of density’ in collection, whilst the approach would give greater certainty to the market in terms of collection (the certainty would be reduced if, for example, requirements to sort could be side-stepped through switching residual waste from landfill to an alternative residual waste treatment).”

¹⁰ Available from: <http://www.wrap.org.uk/content/updated-report-feasibility-landfill-bans>

31. In Section 6.5 of the report we read: “If the intention is to encourage recycling of specific materials irrespective of the destination of residual waste (as the environmental analysis suggests it should be), then the restriction on landfilling of unsorted waste logically needs to be extended to a restriction on sending unsorted wastes to any form of residual waste treatment”.

Q5. What further measures might be appropriate to move plastic waste recovery higher up the waste hierarchy thereby decreasing energy recovery in favour of mechanical recycling? Would a tax for energy recovery be a useful measure?

32. UKWIN is aware that the incineration of recyclable plastics is a real issue in the United Kingdom. We believe that action needs to be taken at a European level to tackle this problem.

33. The term “energy recovery” is used in the UK to cover a wide variety of technologies, including anaerobic digestion (AD). Whilst UKWIN advocates in favour of a tax on all types of incineration (i.e. all Waste Incineration Plant as defined by the Industrial Emissions Directive), we do not favour a blanket tax on all forms of “energy recovery”, as this could potentially tax AD whilst failing to tax D10 incinerators.

34. UKWIN believes that an incineration tax (i.e. a tax on the combustion of waste, including RDF / SRF) would be a useful measure that could help divert recyclable material, including plastic, from the residual waste stream and help combat the ‘vacuum cleaner’ effect of incineration.

35. In April 2012 European Commission research reported that: “...higher incineration charges are generally associated with higher percentages of municipal waste being recycled and composted, indicating that higher incineration charges may help to push waste treatment up the waste hierarchy...Landfill and incineration taxes will help discourage disposal of, or energy recovery from, waste that could be dealt with higher up the waste hierarchy...”¹¹

36. Closely aligned to the prospect of the introduction of incineration taxes is the need to remove all current subsidies that are used to support incineration, as mechanisms that support incineration diminish the potential effectiveness of incineration taxes.

37. As such, UKWIN strongly agrees with the notion, discussed by Working Group I of the European Resource Efficiency Platform, that: “... no more incinerators should be built with EU funding, especially cohesion funds”.¹²

38. UKWIN also notes that European Commission staff identify incineration subsidies as a barrier to the implementation of the waste hierarchy, as follows: “Concerning the application of market-based instruments aiming at creating the economic conditions to support the waste hierarchy, the main challenges are related to: ...In some MS [member states], presence of harmful subsidies (e.g. to support incineration)...”¹³

¹¹ European Commission (DG ENV). Use of Economic Instruments and Waste Management Performances. Final Report, 10 April 2012. Available from: http://ec.europa.eu/environment/waste/pdf/final_report_10042012.pdf

¹² ‘First recommendations to Sherpas’ from Working Group I of the European Resource Efficiency Platform, 22 November 2012. Available from: http://ec.europa.eu/environment/resource_efficiency/documents/wgireportnov2012.pdf

¹³ Annex 6 of the November 2012 Impact Assessment to The Commission proposal for a new general Union Environment Action Programme to 2020. Available from: <http://ec.europa.eu/environment/newprg/proposal.htm>

39. An incineration tax can be used alongside other measures to phase out the incineration of compostable and recyclable materials, and to bring residual waste close to zero, to ensure that the adverse environmental externalities of incinerator emissions, and the costs to society more generally, are reflected in market prices, i.e. are internalised.
40. According to the UK Government: "Failing to price in the environmental cost and benefit of generating waste leads to inefficient production and consumption patterns, and excess waste being produced...Without government intervention, waste treatment options with better environmental performance may be penalised relative to treatments with poorer performance. Accounting for the environmental impact requires that the costs of various treatment options and levels of the hierarchy fully reflect the costs to society of each option. For example, government intervention such as the landfill tax raises the cost of sending waste to landfill, reflecting the environmental externality of disposing waste in this way. However, it does not reflect the relative scale of the environmental impact of treatment and disposal methods further up the hierarchy; for example, the externality associated with incineration, recycling or re-use. Although the recycling rate has risen, further intervention is required to further move waste to an efficient level amongst the various management options".¹⁴
41. Such an assessment is in accordance with the European Commission observation that: "...The Union and Member States will need to put in place the right conditions to ensure that environmental externalities are adequately addressed and that the right market signals are sent to the private sector...This will involve applying the polluter-pays principle more systematically, through phasing out environmentally harmful subsidies and shifting taxation away from labour towards pollution..."¹⁵
42. If we are to phase out the incineration of recyclable plastics by 2020 in line with the Roadmap to a Resource Efficiency Europe then this must be through a range of measures. An incineration tax, or a wider combustion or carbon tax, is necessary to internalise some of the externalities of incineration. However, an incineration tax on its own would be insufficient to ensure that all recyclable plastics are subject to high quality recycling, prevent the incineration of recyclable plastics, and provide the certainty of supply of uncontaminated plastics needed to support the growth of the plastics reprocessing industry.
43. As such, other measures such as phasing out hard-to-recycle plastics, increasing source segregation of plastics, education to ensure proper sorting, and encouraging or requiring the mechanical pre-treatment of residual waste where appropriate should be introduced to work alongside an incineration tax as a means of promoting a closed loop circular economy, with residual waste close to zero.
44. Similarly, as GAIA points out, it is important to promote the use of recycled plastics over non-recycled plastics where appropriate, e.g. through the creation of markets for recycled plastics.

¹⁴ Paragraphs 10 and 12 of the UK Government's Review of Waste Policies Impact Assessment. Defra, June 2011 Available from: <http://archive.defra.gov.uk/environment/waste/documents/ia-review-waste-policy.pdf>

¹⁵ Proposal for a decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2020 "Living well, within the limits of our planet". European Commission, November 2012

Q6. Should separate door step collection of all plastic waste combined with pay-as-you-throw schemes for residual waste be promoted in Europe, or even be made mandatory?

45. It is clear that the existing Directives as they currently stand are not preventing plastics from entering the residual waste stream, and are not ensuring high quality recycle. As such, there is scope for measures to increase recycle quality, and to help prevent plastics from entering the residual waste stream.
46. In the UK, incineration is one of the barriers to increased collection of a wide range of plastics.
47. It may be better, from environmental and economic perspectives, for plastics that cannot readily be recycled to be swiftly phased out rather than requiring mandatory collection and treatment.
48. This phasing out of hard-to-recycle plastics, alongside measures to ensure that products are designed and labeled to maximize recyclability, would also bring the added benefit of reducing the costs of collecting the remaining plastics for recycling, not least due to greatly reduced contamination.
49. Furthermore, if householders and businesses are confident that all plastics can be collected for recycling then this should increase the percentage of plastics sent for recycling.

UKWIN is grateful for this opportunity to comment on such important matters.

Kind regards,

Shlomo Downen

National Coordinator, UKWIN