



To the
Department of Environment, Climate & Communications

on
Position on Removing Landfill Levy Exemption for Stabilised Biowaste

From:
**Cré – Composting and Anaerobic Digestion
Association of Ireland**

&
Irish Waste Management Association

December 22nd, 2020

Introduction

In the recently published [Waste Action Plan for a Circular Economy](#) it mentions that the Department of the Environment, Climate and Communications (DECC) will 'Analyse the impact of the landfill levy exemption for biowaste and whether it should be removed'. We take this to mean stabilised biowaste also known as biostabilised waste.

The relevant levy exemption is applied by Regulation 6(1) (d) of the landfill levy regulations and states:

"(d) stabilised waste arising from the biological treatment of the biodegradable fraction of municipal waste, to which fraction sewage sludge may have been added and which has undergone a separation process to remove plastic, metal or other non-organic material from the stabilised waste;"

The regulation was amended in 2019¹ to include all biological treatment plants, as it previously only applied to composting plants. It states that:

"biological treatment" means composting, anaerobic digestion, mechanical- biological treatment or any other biological treatment process for stabilising and sanitising biodegradable waste, including pre-treatment processes;

This amendment facilitated investment into the development of two new AD plants that are designed to biologically treat organic fines in parallel to the treatment of source segregated organics on a separate line.

Cré and the IWMA have prepared this position paper to explain the processes, the benefits of biostabilisation of organic fines and the impact of the removal of the exemption.

The biostabilisation of biodegradable municipal waste has facilitated Ireland's success in meeting the EU landfill diversion targets. The removal of the landfill levy exemption would make the treatment of the organic fraction removed during waste pre-treatment process unviable from an economic perspective.

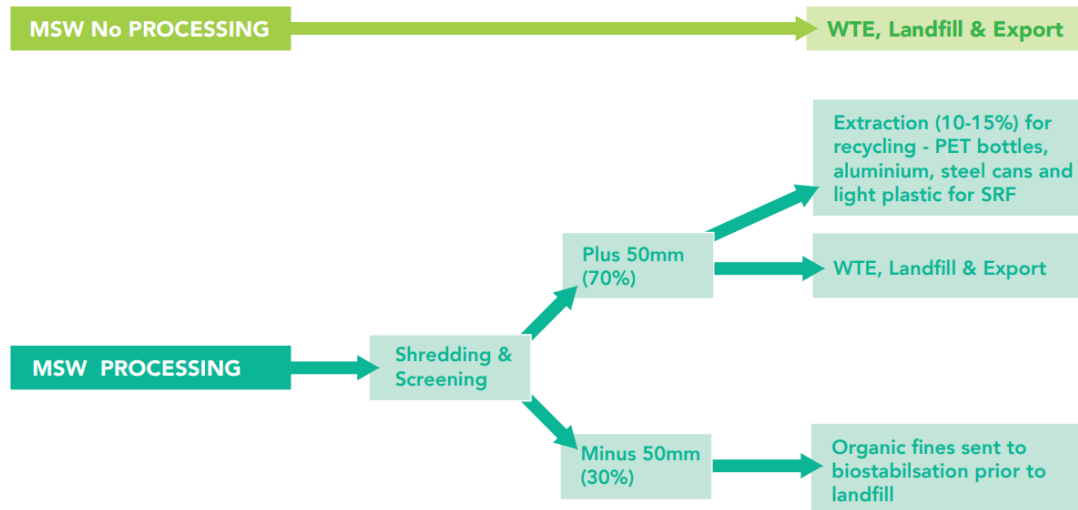
The two Associations are concerned that removal of this exemption would have adverse effects on waste management in Ireland. We do not support the removal of this exemption. We suggest that a regulatory impact analysis (RIA) is required to determine the impact of this proposal. We are ready, willing and able to support the DECC regulatory impact analysis.

¹ S.I. No. 182 of 2019

The Process Explained

The figure below explains the management of municipal solid waste (MSW) and its pre-treatment when organic fines are extracted for the biostabilisation process.

Biostabilisation is the term used to describe the in-vessel composting/anaerobic digestion of organic material that has been removed from MSW through a mechanical separation system. Pre-treating waste prior to landfill reduces greenhouse gas and leachate emissions from landfill.



Benefits of Biostabilisation

- Since biostabilisation commenced in Ireland, there has been approximately 1 million tonnes² processed.
- On average there is a 30-35% reduction in the mass
- This is approximately 300,000 tonnes diverted from landfill due to biological degradation losses arising in the biostabilisation process
- There is less nuisances (e.g. odours) in landfills
- There is less residual MSW sent for disposal/ incineration/export
- It facilitates the export of residual MSW

Example calculation on MSW Treated in 2020:

In 2020, it is expected that approximately 580k of MSW will be pre-treated prior to incineration or export. Below is a calculated tonnage of each fraction in the process.

- MSW original tonnes -580k
- 30% (175k) sent to biostabilisation – 120k sent to landfill as stabilised biowaste
- 70% (406K) further processed and approx. 50k removed as recyclables
- 356k is landfilled or sent to WTE
- This means approximately 100k or nearly 17% of the original MSW is removed from residual capacity.

² By end of 2020, approximately 942,000 tonnes

By disincentivizing biostabilisation you discourage the pre-processing of MSW. This gives rise to a requirement for additional approximate 100k residual waste capacity.

If there is no spare residual waste capacity in Ireland, it increases the risk of potential illegally disposal of residual waste.

Impact on Biological Treatment Infrastructure

We currently have six plants handling organic fines arising from the pre-treatment of MSW. This is a useful asset to the state as we move towards a low carbon circular economy in accordance with the new Green Deal. If this infrastructure is not viable the re-purposing of this infrastructure would be a loss and not available as an option for the future challenges in achieving the circular economy. Furthermore, there is no critical shortage of 'brown bin' composting infrastructure with additional capacity in the pipeline. Gate fees for 'brown bin' have reduced over the last few years (less than they were 10 years ago) and are not a barrier to the treatment of more source segregated material.

Ireland has an obligation under the EU Waste Framework Directive (2006/12/EC), the EU Landfill Directive (1999/31/EC) and the National Biodegradable Waste Strategy (DoEHLG, 2006) to ensure that operators of landfills demonstrate that waste materials received have been subjected to the required level of pre-treatment. The sudden discontinuing of biostabilisation that this would cause would result in an increase in residual MSW and would cause huge disruption to the steady development of biological treatment capacity that has been ongoing. There would also be a reduction in recycling figures as raw MSW would not be processed and recyclables not captured. It would mean the loss of local green jobs and the ability to treat waste locally.

The removal of the landfill levy for stabilised organic fines from the biostabilisation plants would impact on those plants by making them no longer financially viable. It is important to note that two large new AD plants³, one about to open and the other in the process of securing investment have been designed as split facilities processing c.50% source segregated organics (SSO) and c.50% organic fines in two separate lines. In time, these facilities may be converted to 100% source segregated organic facilities if adequate feedstock is available, but without the landfill levy exemption for biostabilised waste, there is a high risk that both facilities will become non-viable, as there is not enough SSO currently available.

We consider that it would be irresponsible of the Irish Government to change legislation in a way that would have such a devastating impact on these important developments and on other existing biological treatment facilities. Such a move would set Ireland back a decade in the context of biological treatment of waste and should not be considered without a full RIA.

Impact on Export of rMSW

Ireland currently relies on the export of rMSW as we transition from a disposal society to a Circular Economy society. Export offers an important relief valve as Ireland would be caught up in a waste management crisis without it. This is likely to remain the case for the foreseeable future until additional WtE is developed. In the meantime, Irish waste companies will continue to export c.250ktpa of RDF and substantial quantities of SRF. A communication from the Regional Waste Planners in June '19 forecast this export requirement in the following table:

³ Huntstown Bioenergy Plant in Dublin and Little Island Bioenergy Plant in Cork.

Regional Waste Mangement Plan Projections on Waste Generation												
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total MSW Projections	3,022,459	3,149,511	3,214,962	3,282,084	3,350,941	3,421,598	3,494,122	3,568,584	3,615,820	3,663,702	3,712,247	3,761,472
% Recycling	42%	43%	44%	46%	47%	48%	49%	50%	52%	53%	54%	55%
Residual waste for Treatment or Disposal	1,753,026	1,795,221	1,800,379	1,772,326	1,775,999	1,779,231	1,782,002	1,784,292	1,735,594	1,721,940	1,707,634	1,692,663
Treatment Capacity in Ireland	1,444,000	1,465,000	1,395,000	1,475,000	1,495,000	1,505,000	1,505,000	1,505,000	1,505,000	1,505,000	1,505,000	1,505,000
Poolbeg	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
Indaver	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000
Cement Kilns	270,000	300,000	320,000	400,000	420,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000
Landfill	369,000	360,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000
			65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000
Export requirement	309,026	330,221	405,379	297,326	280,999	274,231	277,002	279,292	230,594	216,940	202,634	187,663

Currently exports to WtE facilities remain the only viable mechanism to deal with residual waste arisings above permitted domestic disposal capacity.

In order to export RDF there are a number of requirements that must be satisfied in terms of the logistics and storage of the RDF as well as material properties requirements.

RDF is exported in bales that normally weigh about 1 tonne and are wrapped in layers of polythene. The bales are either square or round depending on the equipment at the baling facility. The bales are formed using pressure and are contained using ties, netting or layers of wrap or a combination of the foregoing. Depending on the production site bales can be stored for up to four weeks and during this time due to the internal pressure in the bale any excess moisture can drain from the bale. For this reason, it is a requirement that the moisture-containing fines are removed from the bale during the RDF production process. It is a requirement of the consents for storage in Ireland and at the destination facilities that the bales do not produce leachate. Bales may be stored in port facilities on the receiving side for periods of time before being delivered to the WtE plants.

The competent authorities in both the dispatch and destination countries demand that the RDF operators adhere to high levels of environmental control and this extends to areas such as odour and fly control. Removal of the organic fines fraction generally satisfies this requirement. In the infancy of the RDF export business such controls were not considered and this led to difficulties with local communities, shipping companies and port authorities. In the past expensive ship cleaning was routinely required after a wet RDF cargo but, thankfully, this is no longer the case.

The removal of the fines has largely addressed the environmental compliance issues leaving a relatively benign commodity that is capable of being shipped throughout the year to multiple destinations in hot and cold weather. The removal of organic fines improves the calorific value of RDF and SRF. As Ireland will continue to require exporting RDF the reliability of the process has secured the availability of outlets for the foreseeable future.

The removal of the landfill levy exemption for biostabilised waste would inevitably lead to the closure of the biological treatment plants that are currently engaged in that activity. This would significantly reduce Ireland's options for the export of rMSW, which would undoubtedly lead to a waste management crisis.

Potential for Undesirable Actions or Outcomes

We understand that the DECC has concerns that the levy exemption could facilitate undesirable actions or outcomes, but we consider that those fears are unfounded.

Gate fees for the biological treatment of organic fines are typically 30% more expensive than gate fees for brown bin material. Therefore, it does not make economic sense for collected brown bin materials to be mixed with organic fines and sent to a biostabilisation plant, so we are not concerned on that front. There remains an incentive to supply brown bins to customers and to keep that material separately during collection, transfer and delivery to the appropriate biological treatment plant.

We do not believe that the process of removing organic fines for stabilisation reduces the cost of managing residual waste. In the example above, we show that 17% by weight is removed from the

rMSW during the process, but this does not reduce the overall costs as the rMSW incurs treatment costs that would otherwise be avoided if the material was sent straight to EfW or landfill without pre-treatment. When you combine the cost of the 70% to landfill/EfW⁴ with the cost of the 30% sent to biological treatment and the cost of processing, there is little or no difference in the overall costs of managing the rMSW. This process has not been introduced to reduce costs, it has been introduced to facilitate the reduction in biodegradable MSW sent to landfill and to facilitate the export of a cleaner more acceptable product to be used as a fuel abroad. The capture of additional recyclables is a bonus in both environmental and economic terms and must surely be supported by the authorities in Ireland.

Conclusions

In conclusion, we ask that the DECC considers the 'do nothing' option as the best course of action in this instance. To remove the landfill levy exemption on stabilised biowaste (aka biostabilised waste) would have the following outcomes in our view:

- A reduction in recycling rates.
- A crisis in the management of residual MSW as more rMSW requires treatment and export options are reduced or eliminated.
- The devastation of the biological treatment infrastructure in Ireland including existing and planned facilities.
- Additional landfilling of biodegradable MSW, contrary to the legislative efforts to minimise the disposal of biodegradable MSW in landfill.
- A reduction or prevention of pre-treatment of residual MSW contrary to EPA guidance and Article 6a of the EU Landfill Directive, which requires that *"only waste that has been subject to treatment is landfilled"*.

These are clearly undesirable outcomes and should be avoided.

⁴ Minus the recycled portion