

Bulletin 3: Residual waste treatment trends 2009 to 2013

Introduction

The EPA produces national statistics on waste generation and management to meet legislative reporting obligations and inform national policy development. This bulletin reports on the changes that have occurred in the management of residual waste¹ between 2009 and 2013.

Changes in Waste Management

There have been a number of legislative and waste infrastructural changes in recent years that have led to changes in how residual waste is managed.

- The Landfill Directive requires diversion of biodegradable municipal waste from landfill, with increasing diversion targets to be met in 2010, 2013 and 2016 (2010 and 2013 targets have been met).
- The Waste Framework Directive requires that prevention, reduction, preparing for reuse, recycling and other recovery (including energy recovery) be prioritised over disposal of waste.
- The landfill levy has increased significantly from €20 per tonne in 2008 to its current level of €75 per tonne.
- Mechanical and biological waste treatment processes have residual waste output streams, such as refuse derived fuel, solid recovered fuel, fines and other wastes.
- Some cement kilns, in the State and abroad, now accept waste for energy recovery as an alternative to fossil fuels.

¹ Residual waste is the fraction of collected municipal waste (typically household and commercial black-bin) that isn't or can't be separated for recycling. Residual wastes also arise from mechanical and biological treatment of wastes and are the fraction that cannot be recycled.

- One waste to energy (WtE) facility has operated in the State since October 2011.
- WtE facilities in Europe are importing Irish residual waste for energy recovery.

Key Trends

- Up to 2012, residual waste, particularly municipal residual waste, was primarily disposed to landfill. The shift from disposal to energy recovery is linked to the availability of WtE outlets and the increase in the landfill levy (see Figure 1).
- The number of landfills accepting municipal waste for disposal in the State decreased from 28 in 2009 to 11 in 2013. The quantity of municipal residual waste disposed to landfill decreased by 59% over the period 2009 (1,724 tonnes) to 2013 (714 tonnes).
- There was a 40% increase in the quantity of residual wastes sent for energy recovery within the State between 2012 (233 tonnes) and 2013 (327 tonnes).
- The quantity of residual wastes exported for energy recovery increased by 197% between 2012 (117 tonnes) and 2013 (347 tonnes).
- In the past, a high proportion of residual wastes exported for energy recovery was sent to cement kilns but WtE facilities in Europe were the primary destinations in 2013. In 2013, 48% of residual wastes were exported to WtE facilities in Germany and 26% to WtE facilities in the Netherlands.

- There is a growing trend to export baled municipal residual waste (which has not undergone mechanical treatment) for energy recovery in WtE plants (18 ktonnes exported in 2012 and 112 ktonnes in 2013).

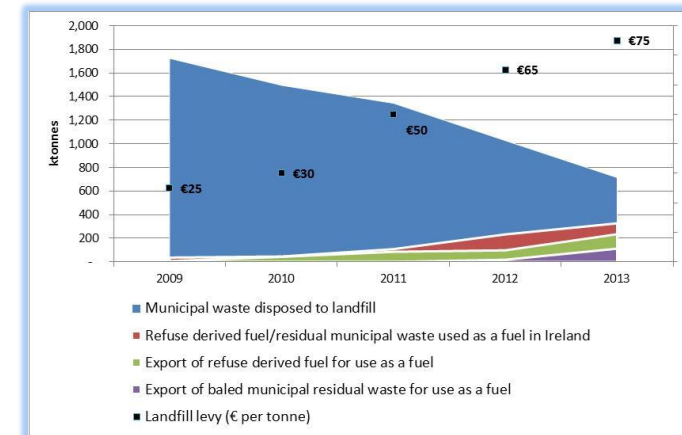


Figure 1. Comparison of residual wastes used as a fuel in Ireland and abroad against the landfill levy rate, 2009 to 2013

Conclusions

- The move up the waste hierarchy from disposal to landfill to energy recovery of residual wastes is welcome and necessary.
- Any waste exported abroad for energy recovery is a lost energy resource and opportunity for the State. A reliance on export as a management option poses a significant risk for Ireland should these export markets close in the future.