Technical explanation

The Council used guidance issued by Defra in calculating the carbon impacts of the relative disposal routes.

As the calculation below demonstrates, when the transportation impact for garden waste is taken into account, it is clear that 'energy-from-waste' incineration achieves wider carbon benefits than the current garden waste collection service.

Key assumptions:

- 603 tonnes of garden waste are collected per annum
- No additional collections, collection vehicles or operatives are required when garden waste is collected in black bags along with general waste
- 7,560 litres of diesel are used per annum when garden waste is collected separately

		Transport	**Process**		**Net Impact**
		kg CO_2 equivalent	*Treatment technology used*	*kg CO_2 equivalent*	*tonnes CO_2 equivalent*
Scenario 1	Collect garden waste separately	20,178.73	open windrow composting	3,618.00	23.80
Scenario 2	Collect garden waste with residual waste	0.00	incineration (electricity generation only)	12,663.00	12.66

Key points:

- The carbon impact of garden waste collection is 23.8 tonnes (20.2t from transport and 3.6t from the process)
- The carbon impact of incineration is 12.66 tonnes (0t from transport and 12.66t from the process)
- Choosing incineration would therefore save 11.16 tonnes of carbon annually