

Waste Electronic and Electrical Equipment (WEEE) Survey 2001

EXECUTIVE SUMMARY

The Environment and Heritage Service (EHS) requires reliable waste data to support the development and implementation of the Waste Strategy for Northern Ireland. Previous surveys in 1999 and 2000 collated data for municipal, commercial and industrial waste and the waste industry sectors. In 2002, the EHS commissioned a number of surveys to update and extend the previous data.

This report details the findings of a survey to establish the baseline data required for the implementation of The Waste Electrical and Electronic Equipment (WEEE) Directive in Northern Ireland. The survey examined the volumes, type, treatment and disposal of Electrical and Electronic Equipment by gathering and analysing data from distributors and retailers, district councils and waste management companies. The base year for the survey was 2001.

In general, there was only a limited amount of useful data returned from the surveys and estimating techniques were necessary to attempt to calculate the required outputs. This lack of data was not unexpected, because companies and district councils have not been required to monitor electrical and electronic equipment (EEE) as separate from other waste streams.

All 26 district councils, 55 selected waste management companies and 650 distributors and retailers of EEE were surveyed by a combination of postal questionnaire, telephone interview and face to face visits.

Key Findings

A number of key findings were obtained from each part of the survey and are summarised below.

Municipal WEEE Survey

All 26 district councils responded to the survey, but few estimated the proportion of WEEE in their collected waste streams. The total average amount of WEEE collected by the district councils was estimated to be approximately 9,507 tonnes (not including WEEE in household waste), but the unreliability of the data and small sample size make this value indicative only.

It was also estimated that out of the total WEEE collected, between 613 and 1,226 tonnes of fridges and freezers were handled by local authorities during 2001.

Based on the estimated average WEEE collected from the household it was estimated that on average around 12.2 kg per household or 4.4 kg per person was collected. For comparison a number of collection trials undertaken elsewhere in Europe have indicated rates of about 3-5 kg/person/year.

Based on the estimated breakdown of WEEE supplied by the district councils an estimation of the total amount of electrical and electronic equipment in each of the ten categories defined by the WEEE Directive was made. Around 70% by weight of the total WEEE collected comprised large household goods.

Waste Contractors and Recyclers Survey

This survey was carried out as part of the EHS Waste Contractors Survey and the response rate was about 50%, but there was little accurate information available on WEEE. In total the survey accounted for about 3500-3600 tonnes of WEEE, which is just under half of the estimated WEEE collected by the local authorities. Some of this may be double counted (i.e. collected then shredded), and any accurate estimation of reprocessing capacity was not possible.

WEEE Distributors and Retailers Survey

The survey had a response rate of about 10%, but included a number of key retailers with a combined market share of about 44% of sales by value. The amount of WEEE sold into the Northern Irish market was estimated to be between 23,169 and 29,378 tonnes per annum.

Around 60% of the survey respondents were unaware that the products sold would be encompassed by the WEEE Directive.

20% of the respondents currently offered take-back schemes. The preferred method for dealing with the take-back of WEEE for approximately 60% of respondents was through district council collection points.

WEEE Arisings Calculations

Due to the lack of waste data and to confirm the sales based forecasts, a number of other methods were used to estimate WEEE arisings in Northern Ireland. These various methods estimated the amount of WEEE arising in Northern Ireland to be somewhere between 25,000 and 30,000 tonnes per year. This equates to approximately 14.7 to 17.7 kg per inhabitant per annum.

Various studies of WEEE in Europe estimate arisings at between 12-20 kg a year per inhabitant. This compares well to the projected range.

Recommendations

In order to ensure that adequate data is available for future reporting requirements, a number of recommendations have been made,

A comprehensive WEEE data gathering methodology should be developed for use by the district councils and their waste contractors.

Future surveys of municipal WEEE collection should be undertaken in conjunction with the general municipal survey of all waste.

A regular survey of distributors and retailers should be undertaken to ascertain sales of equipment. Consistent methods of reporting and categorisation should be developed with the manufacturers, retailers and distributors.

The WEEE Directive may also require that manufacturers, retailers and distributors collect data related to the take-back of electrical and electronic equipment. If this is the case then a standard methodology should be developed and companies trained in its operation.

When the implementation of the WEEE Directive in the UK is finalised, distributors and retailers should be informed of the implications to their operations.

WEEE Survey: Executive Summary

From the survey response it appears that there is only a limited infrastructure for WEEE treatment and disposal in Northern Ireland. A more detailed survey with "buy in" from the industry should be undertaken in order to examine the activities of waste management companies, asset management companies and the exporters of WEEE in greater detail.

A consistent methodology to record the quantities of WEEE handled should be developed with recyclers and reproducers of WEEE.