

# The WEEE Directive

Implications and opportunities for London


May 2004



**LONDON REMADE**

*The business of recycling*

# Introduction

1. The Waste Electrical and Electronic Equipment (WEEE) and The Restriction of Hazardous Substances in Electrical and Electronic Equipment (ROHS) Directives are complex pieces of producer responsibility legislation that will soon affect many groups producing and handling electrical and waste electrical products. The ROHS Directive will mainly affect organisations that specify and produce Electrical and Electronic Equipment (EEE) and the WEEE Directive will impact on organisations throughout the waste and recycling supply chain. Together, these Directives will change the life cycle of EEE and influence organisations throughout the supply chain, including options for the final disposal of electrical items.
2. While London faces significant challenges as a result of these Directives, London Remade believes that the Directive offers significant opportunities in the sustainable management of WEEE.
3. This report explores the type and likely size of the tasks for London, opportunities for the capital and it summarises the ways in which London Remade believes it can assist the WEEE supply chain in meeting the objectives of the Directive. Since the UK's transposition of the WEEE Directive has not yet taken place, London Remade will remain flexible and fine-tune its actions as more detail becomes available.
4. A more detailed report, entitled *Closed-Loop Analysis of WEEE Reuse & Recycling activity in London* discusses London Remade's analysis of the Capital's WEEE market in more detail and is available on [www.londonremade.com](http://www.londonremade.com).

## Size of the task for London

5. The Industry Council for Electronics Recycling (ICER) estimates that 1 million tonnes of WEEE is generated in the UK each year. No regional break-down of this figure is available, but we estimate that London produces 170,000 tonnes of WEEE per annum. This is slightly higher than a population pro rata figure because a number of factors suggest that London has more WEEE, such as high-tech industry sectors and higher levels of affluence.
  6. If the EU target of 4kg/person/year of WEEE collected is to be reached, we estimate that London will need to capture at least 28,000 tonnes of WEEE per annum for recovery & recycling.
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7. Although the 4kg per capita target is national, it is interesting to note that this figure varies from borough to borough. Croydon has the highest WEEE capture tonnages based on population at 1,322 tonnes/year and the City of London has the lowest WEEE capture rate of 29 tonnes per annum due to its low resident population (more detailed analysis for each London Borough is available on the London Remade website and [www.capitalwastefacts.com](http://www.capitalwastefacts.com)).

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9. Although the 4kg target applies only to household waste, WEEE producers have a responsibility to recycle up to 80% of all WEEE, including business waste electronics. This is a particular issue for London as there is a high concentration of business located within the capital.



## Key issues for London's WEEE supply chain

10. London Remade has identified a number of key issues it believes will need to be tackled to ensure London is ready for the WEEE Directive. These are summarised below:
- Sophisticated ferrous and non-ferrous recycling techniques are present, but recycling techniques for the non-metal component of WEEE – principally plastics – are not well developed. This portion of the WEEE stream is growing and it will be necessary to recycle non-metals to meet the high recycling levels for each of the 10 categories set out in the Directive.
  - The WEEE Directive requires that certain components are removed from WEEE before it is recycled. New facilities will be required to fulfil this pre-processing activity, but at this stage the UK legislation is not clear.
  - Although community groups are developing strong markets for reusing large household goods, limited WEEE reuse or recycling is taking place for small WEEE items, such as small household appliances, tools or toys. The exception here is mobile phones, where a market has developed around phones, which have a high value second-user markets.
  - Several WEEE waste streams are now classified as hazardous under the new hazardous waste regime and few facilities exist for collecting, handling, storing and processing these materials. Of particular concern here are the 1.3 million Cathode Ray Tubes (CRT) from TVs and monitors disposed of in London each year.
  - As part of their WEEE responsibilities, retailers have been asked to provide an 'adequate collection network' for householders to easily return their EEE products when they have reached the end of their useful lives. At present retailers are proposing to utilise Civic Amenity (CA) sites for this activity and to test this proposition London Remade
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has visited all London's CA sites and reported on their suitability for this purpose (this report is also available at [www.londonremade.com](http://www.londonremade.com)). We have also undertaken trials to examine the best option for this network and the results are discussed further below.

- f. The provision of an adequate network for businesses to return their WEEE to maximise reuse and recycling is not emphasised in the Directive, but we believe it is an important activity for increasing WEEE recovery levels.
- g. Relative to its weight, WEEE tends to be a high value and therefore mobile waste stream. At present most WEEE processors are located or plan to be located outside London due to high operating costs in the capital. As a result London could lose out to the economic & environmental and social benefits associated with the WEEE Directive if this issue is not addressed.

## London Remade's WEEE Market Development Programme

11. London Remade aims to work with all relevant organisations to meet the supply chain challenges summarised above. To meet these challenges we are extending the work of each of our three core teams to include WEEE development activities across the supply chain from collection, through reprocessing to developing markets for the recycled products.

### Support Service

12. The Support Service's main role is to work with London boroughs to improve their recycling collection rates and develop best practice. London Remade is expanding the role of this service to encompass the WEEE collection supply chain in London.
13. The Support Service is the 'expert voice' for WEEE material flows in London and it is leveraging of this knowledge to increase funding for WEEE activities in London.
14. London Remade already has a strong foundation for mapping material flows and measuring borough performances in this area with [www.capitalwastefacts.com](http://www.capitalwastefacts.com). The Support Service is in the process of consolidating WEEE research around this platform to form an expert London-wide picture. London Remade has undertaken two pieces of work which will form the basis of the Support Service's work in this area:

- WEEE collection trials in Lewisham (CA site) and Bexley (two CA sites and 20 bring sites); and
- A complete London survey of all CA sites to base-line their current WEEE activity and estimate future potential based on available space.



15. Each of the trials has run for six months, with initial results indicating that the CA sites collected higher tonnages than the bring sites. More information on these projects can be found in the project files of [www.capitalwastefacts.com](http://www.capitalwastefacts.com)
16. The CA Site Profiling Report found that most sites could accommodate some kind of container for the separate collection of WEEE. Full details are available on [www.londonremade.com](http://www.londonremade.com).
17. The current WEEE model to utilise CA sites to deliver retailer take-back is particularly challenging for London because the ratio of population to CA sites is very high, coupled with the fact that many London residents have mobility issues. Therefore, taking WEEE to these sites can be difficult. As a result, both local authorities and the private sector will face significant challenges in London if the aspirations of the WEEE Directive are to be met.
18. In addition to the boroughs and their collective representatives, the key organisations that the Support Service is working with are:
- WEEE Clearing House;
  - ICER;
  - DTI, DEFRA and EA;
  - Retail Compliance Scheme (currently being managed by BRC);
  - OEM Compliance Schemes (Valpak, Repic, ERP, Transform, Response);
  - Individual retailers and OEMs who are proactive in this area; and
  - Waste management companies

**Comment [LEM1]:** Is this figure correct

### Infrastructure & Business Support

19. London Remade capital projects and business support works to improve the reprocessing infrastructure within London, driving tonnes of waste material away from landfill and into the production of marketable products.
20. Whilst clarification regarding the UK WEEE legislation is being sought, London Remade is identifying partners to develop capacity for WEEE processing in London. Projects which are currently being developed are regarding a mixed plastics reprocessing facility with MBA polymers - an American plastics company, and a WEEE reprocessing site with London's Bywaters Waste Management.
21. London Remade has strong ties with refurbishment organisations in London: London Community Recycling Network (LCRN); Create; CRISP; and Ozone Friends and more widely the Furniture Recycling Network (FRN). These organisations are starting to organise themselves to work together to tackle WEEE in two main areas:
- to protect and promote their core activity of refurbishment. This is out of necessity because there are no formal reuse targets in the WEEE Directive; and



- to provide services to WEEE producers (or their representatives) on a fee-basis e.g. collection and recovery activities.

22. We are working closely with the FRN and some of their members to help them achieve their goals. London Remade is working with the following social enterprises:

- **Maxitech** – funded start-up of not-for-profit IT refurbishment project;
- **LCRN** –part funding for a WEEE secondee;
- **Create** – provided funding to improve work station facilities;
- **Ozone Friends** – funded collection and delivery vehicles;
- **FRN** – working with Craig Anderson to open first London WEEE centre; and
- **CRISP** – early stages of part-funding for a CRT facility.

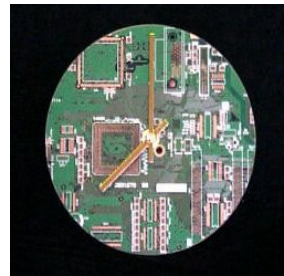


23. London Remade is proposing to work with these organisations by helping them develop their current and planned activities, providing additional funding (where appropriate) and support e.g. FRN/LCRN plans for WEEE centres and CRISP's plans for CRT/WEEE facility.

24. The role of the Business Support team will become much clearer once the detail of the UK WEEE legislation is available, which will be in the late summer.

### Green Procurement

25. The goal of the Mayor's Green Procurement Code Programme is to strengthen the economic sustainability of London's recycling programme, helping to contribute to the green economy by increasing expenditure on and markets for goods made from recycled materials. London Remade aims to expand this activity to encompass WEEE.



26. The WEEE Directive concentrates on producers and retailers of electronic and electrical equipment. It does not offer recycling targets, advice or guidance for users of the equipment. This means that after the regulations are introduced, many businesses in the capital will hear about WEEE, but guidance on how they need to dispose of their equipment will not be immediately obvious.

27. The Green Procurement Team will extend their capacity for communicating with London's public & private sector organisations to include WEEE in the following ways:

- benefits of purchasing efficient electrical and electronic equipment that can be recovered at the end of its life e.g. TCO99 approved IT

equipment (which has passed over 50 tests relating to emission levels, energy consumption, ergonomic design and ecological soundness);

- options and benefits of purchasing refurbished or reconditioned electrical equipment e.g. reconditioned servers as well as more obvious items like white goods;
- provide advice on WEEE recovery options e.g. benefits of supplying IT equipment to charities like Tools for Schools; and
- provide online database of key products and organisations operating in this area.

## Summary

28. London Remade has made a significant impact on the WEEE agenda for London and it is well placed to develop specific activities in the areas highlighted in this report once the WEEE legislation gains further clarity. The table below summarises the key supply chain issues and a road-map for London Remade:

<b>Team</b>	<b>Supply chain issues</b>	<b>Target materials</b>	<b>Current &amp; possible future projects</b>
<b>Support Service</b>	Meeting 4kg per capita in London  CA sites as WEEE centres  New bring facilities for WEEE  WEEE facilities for commercial waste	All materials. Hazardous waste regs mean some are more tightly controlled	Full survey of all London's CA sites complete  Lewisham trials  Bexley Trials
<b>Infrastructure &amp; Business Support</b>	Lack of reuse, pre-treatment & reprocessing facilities in London	Plastics  CRT  Reuse  Specialist (e.g. medical equipment, servers)	MBA  <i>Bywaters</i>  <i>CRISP</i>  <i>FRN Regional Centres</i>
<b>Green Procurement</b>	Finding markets for WEEE  Developing markets for recycled WEEE	All WEEE  Plastics  CRT glass	Materials Service  Mayor's Green Procurement Programme.

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