



## **REDUCING THE ENVIRONMENTAL IMPACT OF PRODUCTS (IPP, Packaging Waste, ELV, WEEE, RoHS, EuP, Ecolabels etc.)**

Environmental policy and an increasing range of legislation focus on reducing the environmental impact of products. Voluntary instruments e.g. standards and labels are also focusing on this issue. Legislation is targeting certain products, deemed as having significant environmental impacts, on a phased basis e.g. packaging (packaging & packaging waste regulations), vehicles (ELV) and electronics (WEEE, RoHS and EuP). Click on the links below for background information and guides to this policy, legislation, labels and standards.

### **1.0 Background**

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## 1.0 Background

Over the lifecycle of a product its material consumption and end-of-life issues in particular, can cause significant environmental problems. Traditionally, the focus for industry has been on reducing the environmental impacts of production processes. However, this responsibility is being extended, and manufacturers are now required to reduce the environmental impacts of both processes and products.

This approach is known as Extended Producer Responsibility (EPR) as it extends the manufacturers responsibility from managing the environmental issues of the production process to the entire lifecycle of the product – from raw materials, production, distribution, consumption to end-of-life.

The EC Sixth Environmental Action Programme *Environment 2010: Our Future, Our Choice*, which is the EC's sixth 10-year vision for European environmental policy, emphasises the importance of product policy.

These concepts are also reflected in Europe's Integrated Product Policy, which provides a framework for reducing the environmental impact of products. EPR legislation and initiatives are fast coming on stream and focusing on specific industries such as the packaging, automotive and electronics sectors. A summary of the key issues in this area is provided in the sections that follow.

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## **2.0 Integrated Product Policy (IPP)**

Integrated Product Policy (IPP) is the EU framework policy for a product lifecycle approach. Legislation falling under this IPP framework focuses on reducing environmental impacts at source by designing products with a reduced environmental impact throughout their lifecycle, targeting in particular the impacts associated with the product's consumption and end-of-life stages.

The IPP approach emphasises EPR and is designed to make the producer responsible for product take-back at end of life, disposal and treatment. These are seen as motivational factors that encourage the producer to eliminate or minimise environmental impacts e.g. waste and hazardous substances when designing the product, thereby minimising the impacts to be dealt with at end-of-life. Each of the legislative instruments described in sections 3.0 – 6.0 below are examples of EPR legislation.

For further information on IPP see:-

<http://europa.eu.int/comm/environment/ipp/home.htm>

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### 3.0 Packaging and Packaging Waste

Council Directive 94/62/EC is implemented in Ireland through the Waste Management (Packaging) Regulations S.I. No. 61 of 2003 as amended by the Waste Management (Packaging) (Amendment) Regulations S.I. No. 871 of 2004 (*which replaces the Waste Management (Packaging) Regulations, 1997 (S.I. No. 242 of 1997) as amended by (S.I. No. 382 of 1998)*). The directive is currently under revision at EU level with likely increased recovery and recycling targets to be introduced in the future.

This legislation is now well established in Ireland with the aim of reducing the environmental impact of packaging at source, maximising the recovery of used packaging and eliminating hazardous materials in packaging. These Regulations apply to businesses that supply packaging (packaging materials, packaging or packaged product) to the Irish market, whether as manufacturers, packer/filler distributors or retailers. They are designed to assist and promote the recycling of packaging waste and in particular to enable Ireland to achieve its packaging waste recovery targets as defined in Directive 94/62/EC.

The legislation imposes waste recovery obligations on producers. These may be discharged either by participation in an approved packaging waste recovery scheme (REPAK in Ireland) or by the company setting up its own scheme. One of the key concepts in this legislation is the elimination of waste at source. This means that environment issues, in particular the reduction of waste, should be key criteria at the design stage of the packaging. The aim is to eliminate where possible or minimise the waste arising at all stages of the packaging lifecycle, this is ideally achieved through reusable, recoverable packaging systems.

For copies of the legislation see:-

[Waste Management \(Packaging\) Regulations, 2003](#)

[Waste Management \(Packaging\) \(Amendment\) Regulations 2004](#)

[Circular WPR 9/04 of 22 December 2004](#) concerning the Waste Management (Packaging) (Amendment) Regulations 2004.

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#### **4.0 End of Life Vehicles**

The Directive 2000/53/EC on End-of-Life Vehicles (ELV) is in place and is required to be implemented in each EU Member State, including Ireland, by April 2002.

##### 4.1 Who does ELV apply to?

This legislation impacts vehicle manufacturers, vehicle material and equipment manufacturers, automotive component manufacturers, assemblers and ELV recycling companies.

##### 4.2 What does it mean?

The aim of the legislation is to reduce the volume and hazardous nature of waste from ELV. Manufacturers are required to design automotive vehicles to, *inter alia*, reduce the hazardous components and facilitate the disassembly, recovery, and recycling of ELV to meet specified recycling targets. There is a focus on eliminating or minimising hazardous substances e.g. lead, mercury, cadmium and hexavalent chromium in vehicles, with bans specified for set time limits. Facilities are to be set up for collection, recovery and treatment of ELV. The producer is responsible for the associated costs.

##### 4.3 What are the time-scales?

The relevant timescales are as follows:

- 01 July 2002 – ELV vehicles put on market from 01 July 2002 to be delivered to treatment facilities
- 01 July 2003 – materials and components of vehicles put on the market this cannot contain mercury, cadmium and hexavalent chromium, subject to certain exemptions.
- 01 January 2007 - ELV vehicles put on market before 01 July 2002 to be delivered to treatment facilities

Meanwhile, the timetable for National Reuse and Recovery targets is as follows:

- 01 January 2006 – reuse and recovery of ELV to be at a minimum of 85%
- 01 January 2015 - reuse and recovery of ELV increased to a minimum of 95%

##### 4.4 What is the market status?

Original equipment manufacturers (OEMs) of automotive vehicles such as Ford, Honda, BMW and Rover are in the advanced stages of redesigning



vehicles to meet these obligations. Likewise, automotive material and component suppliers are impacted via the supply chain, as they must meet changes in product specifications. In conjunction with government, recycling and recovery operators for automotive components are currently involved in the development of the infrastructure in Ireland necessary to meet ELV obligations.

#### 4.5 Further Information

For copies of the legislation see [ELV Directive](#)

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## **5.0 Waste from electrical and electronic equipment (WEEE) and Restriction of use of certain hazardous substances (RoHS) in electrical and electronic equipment**

The EU Directives 2002/96/EC on waste electrical and electronic equipment (WEEE) and 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) entered into force on 13 February 2003.

These directives aim to reduce the environmental impact of electronics goods by the removal of specified hazardous substances (RoHS) and prevention and management of waste electrical and electronic equipment (WEEE).

The Irish implementing legislation as follows entered into force on 06 July 2005:-

- SI 340 Waste Management (WEEE) Regulations 2005 (implementation arrangements for WEEE)
- SI 341 Waste Management (RoHS) Regulations 2005 (implementation arrangements for RoHS)
- Waste Management (Electrical and Electronic Equipment) Regulations 2005 SI 290 (amending the Waste Management Act 1996 to provide enabling provisions for transposition and implementation of WEEE and RoHS).

### **5.1 Who does WEEE and RoHS apply to?**

The legislation directly impacts “producers” who put electrical and electronic equipment (EEE) onto the Irish market. A “producer” of EEE is defined as “any person who, irrespective of the selling technique used, including by means of distance communication” (e.g. internet, telesales or mail order):-

- manufactures and sells EEE under their own brand;
- resells EEE produced by other suppliers under their own brand;
- imports EEE into Ireland;
- exports EEE from Ireland to another EU Member State;
- distributes EEE from a “non registered producer “ (see section 5.2 below for information on registration of producers)

Distributors are any party providing EEE on a commercial basis to the end user e.g. a retailer.



This applies to “producers” within the EU or from third countries putting EEE to the Irish market.

Putting EEE onto the market refers to the initial action of making the product available for the first time on the Community market i.e. the physical hand over or transfer of ownership from the producer to a distributor or final user.

The 10 categories of EEE covered by the WEEE legislation, example products per category and exclusions are:

1. **Large Household Appliances** - washing machines, fridge/freezers, microwaves, fans, radiators, large appliances for heating rooms/beds/seating furniture
2. **Small Household Appliances** - vacuum cleaners, irons, electric knives, clocks, scales
3. **IT and Telecom.-** computers, calculators, phones
4. **Consumer Equipment** - radios, TVs, VCRs
5. **Lighting Equipment** - luminaires (excluding household), straight/compact fluorescent lamps, otherlighting of equipment for spreading or controlling light (excluding filament bulbs)
6. **Electrical/Electronic Tools** (excluding large scale stationary industrial tools) - drills, sewing machines, sprayer/spreaders, lawn mowers
7. **Toys & Leisure/Sports Equipment** - train sets, video games, cycle computers
8. **Medical Devices** (excluding implanted and infected devices) (Excluded from RoHS) - dialysis, nuclear medicine, freezers
9. **Monitoring & Control Instruments** (Excluded from RoHS) - smoke detectors, thermostats, measuring/weighing appliances
10. **Automatic Dispensers** – coffee/drinks machines, ATMs.

Indirectly, the legislation also has implications for material and component suppliers and assemblers as well as electronics re-manufacturers and WEEE recovery, treatment and recycling companies.

The RoHS legislation applies to EEE under categories 1-7 and 10 as above of the WEEE legislation. Categories 8 (medical devices) and 9 (monitoring and control equipment) are currently excluded. Excluded categories are to be reconsidered at a later stage. Another exclusion is that RoHS does not apply to spare parts for the repair, or to the reuse, of EEE put on the market before 01 July 2006.

## 5.2 What are the obligations and timescales of the WEEE legislation?



The main WEEE obligations are summarised under the following headings:-

- EEE design to prevent, minimise and manage WEEE;
- Responsibility for WEEE environmentally sound management;
- Registration;
- Marking and information provision;
- Plans, record keeping and reports.

#### *5.2.1 EEE design to prevent, minimise and manage WEEE*

When designing and manufacturing EEE, producers are obliged to use design and manufacturing strategies to prevent and minimise WEEE and to facilitate WEEE disassembly, recovery and in particular the reuse and recycling of WEEE, their components or materials.

#### *5.2.2 Responsibility for WEEE environmentally sound management*

From 13 August 2005, obligations for producers relating to the finance, collection, storage, treatment and recovery of WEEE take effect as described in this section.

From 13 August 2005, EEE producers are required to finance the environmentally sound management of their WEEE arising from EEE placed onto the market:-

- on or after 13 August 2005;
- placed onto the market prior to 13 August 2005 (known as “historic WEEE”) in proportion to their current market share of that EEE type(s).

This incorporates:-

- Household WEEE deposited at an approved collection facility;
- Business to Business (B2B) WEEE placed onto the market on or after 13 August 2005. For EEE placed onto prior to 13 August 2005 that is replaced by the producer with new/equivalent products fulfilling the same function.

[Note: For B2B WEEE arising from EEE put onto the market prior to 13 August 2005, that is not being replaced with new/equivalent products fulfilling the same function, the final user is responsible for the WEEE delivery to an appropriate WEEE recovery facility and financing its treatment, recovery and environmentally sound disposal.]

The producer financial contribution will fund a free take back system for household WEEE brought to an approved collection facility e.g. point of



purchase (retailer) or Civic Amenity Centre operational from 13 August 2005. From this date, distributors are required to take back WEEE from final users on a one for one basis for free and to provide information on this free take back.

Producers are to provide a financial guarantee for products intended for private household use and placed on the market after 13 August 2005 to cover the financing in line with Article 16 of the WEEE Regulations.

Producers and B2B EEE users may arrange alternative financing arrangements provided that the WEEE is managed in an environmentally sound manner in line with the WEEE Regulations.

From 13 August 2005 onwards, producers or a third party acting on their behalf must make arrangements to provide for the appropriate collection, storage and treatment of WEEE in line with Schedules 6 and 7 of the WEEE Regulations. From 31 December 2008, recovery targets for WEEE are to be met as follows:-

- Recovery, reuse and recycling targets set per category of equipment as per Article 22 of the WEEE Regulations e.g. large household appliances – 80% recovery and 75% reuse/recycling.

From 13 August 2005 onwards, retailers are required:-

- to provide free in store take back of household WEEE on a one for one basis on the sale of a new like product;
- ensure that the storage and transport of WEEE is in line with the legislation;
- ensure that WEEE collected is delivered to an approved collection facility.

Retailers are except from the normal waste collection permit requirement for the transport of WEEE on collection and deposit to an approved collection facility. Retailers can register with their Local Authority for a fee of €20 annually to enable them to deposit collected WEEE at Civic Amenity sites.

Producers can meet their responsibilities for environmentally sound management individually through self compliance or collectively through participation in producer collective schemes operated by an approved body for the collection, treatment, recovery and disposal of WEEE. The following two producer collective schemes have been approved for Ireland:-

[WEEE Ireland](#)  
[European Recycling Platform](#)

Membership of an approved collective scheme exempts producers from the following obligations:-

- Requirement for financial guarantees
- Collection, treatment, recycling and recovery targets
- Record keeping to include waste management plans and reports (see section 5.2.5 below)

Visible Environmental Management Costs (EMCs) are the costs of collection, treatment and environmentally sound management of historic WEEE for new products placed on the market from 13 August 2005. The Regulations allow producers to display EMCs on new products for a limited period of time (e.g. 10 years for large household appliances). From 13 August 2005, producers can display visible EMCs on products. Where they are displayed, the retailer must also display them to customers e.g. on invoices or receipts in line with the WEEE Regulation. Table 1 illustrates the visible EMCs have been approved for Ireland for certain EEE categories. Not all of the 10 categories have approved visible EMCs e.g. household computer equipment. The EMC is to be used for a producer recycling fund to fund WEEE recycling.

**Table 1: Approved visible Environmental Management Costs**

**Large Household Appliances**

All Refrigeration (nominal capacity above 250 litres)	€40.00
All Refrigeration (nominal capacity up to 250 litres)	€20.00
Large Appliances	€20.00
Medium Sized Appliances	€5.00
Small White Goods	€2.00

**Small Household Appliances**

Floor Care	€5.00
All Other Small Household Appliances	€2.00
Small Personal Appliances	€1.00

**Consumer Equipment**

Large TV's (69cm+)	€20.00
Medium Size TV's (52-69cm)	€10.00
Small TV's (0-51cm),	€5.00
Medium Size Consumer Products	€5.00
Small Consumer Products	€2.00
Miscellaneous minor items	€1.00

**Lighting Equipment**

Luminaries	€2.00
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Fluorescent Lamps	€0.50
<b><u>Electrical &amp; Electronic Tools</u></b>	
Electrical & Electronic Tools	€3.00

### 5.2.3 Registration

By 15 August 2005, EEE producers must register with **WEEE Register Society Ltd /WEEE Register, the National WEEE Registration Body** for Ireland if they:

1. manufacture and sell EEE in the State,
2. manufacture EEE and export it out of the State,
3. rebrand EEE as your own and sell it in the State,
4. import EEE into the State.

All existing producers must lodge an application with *WEEE Register* by 20 July 2005 or on the date of business commencement for new producers. This is the first phase of a two stage registration process.

The application form requires general company details, categories of EEE produced and turnover. The application fee is €500 (for companies with < €1million turnover in Ireland) or €1000 (for companies with > €1million turnover in Ireland) . Post submitting the application form, producers will be requested to submit on a confidential basis market data by a third party contractor using a Black Box system. This is the second stage of the registration process. This data will be used to determine producer market share and associated financial contribution. A Certificate of Registration is issued from WEEE Register with a unique registration number per producer. In order to put EEE onto the market or to enable retailers to sell it, producers are required to put this registration number on all invoices, credit notes, dispatch and delivery dockets from 13 August 2005. The Certificates are provisional and valid until 31 January 2006 or validation of market data.

For an application form and further details contact:

**WEEE Register**  
**The National WEEE Registration Body,**  
**P.O. Box 10262, Dublin 2.**  
**Tel: (01) 2409320/1**  
**E-mail: info@weeeregister.ie**

WEEE Register has been set up in Ireland to perform the following functions:-



- Process applications and issue Certificates of Registration to producers;
- Manage the determination of producer current market share based on market data submitted by producers and the use of a confidential Black Box system;
- Determining producers have adequate financial guarantees in place;
- Validate visible Environmental Management Costs (EMCs);
- Keep accounts and report to the Dept. of the Environment, Heritage and Local Government Minister;
- Notify the Environmental Protection Agency where producers have not complied with the WEEE legislation (see section 5.4 Enforcement of WEEE & RoHS below);
- Producers submit appropriate information as required to verify that EEE placed onto the market is RoHS compliant (not required until 01 July 2006).

WEEE Register will maintain a Register of Producers putting EEE onto the market.

EEE Retailers register with their Local Authority and should contact them for an application form. All retailers are to be registered by 13 August 2005.

#### *5.2.4 Marking and Information Provision*

In addition to the information to be provided to WEEE Register at registration as described in section 5.2.5 above, there are some additional marking and information provision obligations.

From 15 August 2005 EEE should not be disposed of as unsorted municipal waste and must be separately collected. To ensure this, from this date:-

- Producers are to mark EEE put onto the market using the crossed wheeled bin symbol and provide information to users of EEE on WEEE separate collection and recovery. The EEE must also uniquely identify the producer e.g. a brand name, trademark or company registration number.
- Distributors/retailers are to provide information on WEEE return and the rationale for same such that householders are informed of the WEEE take back facilities available to them and encouraged to participate in the separate collection of WEEE.

The marking of EEE with the crossed wheeled bin symbol in accordance with Article 11(2) of the WEEE directive is defined in **Standard EN 50419 Marking of electrical and electronic equipment** available from [www.standards.ie](http://www.standards.ie) . The symbol should be placed on all EEE

subject to the WEEE legislation provided the equipment concerned is not part of another type of equipment that does not fall within the scope of this directive. To identify that the EEE is put onto the market after 13 August 2005, it should have the date of manufacture/put onto market and the crossed out wheeled bin symbol. The symbol should be placed on the product, or if it is too small, the instructions and warranty/permanent tag or, as a final option, the packaging,

From 13 August 2005, producers or a third party acting on their behalf are to ensure that within 1 year of placing any and each new type of EEE on the market, they provide information, as needed, to WEEE recovery facilities on:-

- Reuse and treatment information;
- EEE components and materials;
- Location of dangerous substances or preparations.

#### *5.2.5 Plans, Record Keeping and Reports*

From 15 August 2005, producers or a third party acting on their behalf are to meet the following obligations for record keeping, waste management plans and reports. Producers who are members of an approved collective scheme are exempt from these obligations.

- Records of the mass of WEEE generated entering and leaving a recovery facility (providing proof of meeting recovery and reuse/recycling targets);
- No later than the date of registration, a Waste Management plan is to be available specifying the producers steps for complying with the WEEE Regulations to incorporate the environmentally sound WEEE management. The content is defined in Part 1, Schedule 8 of the WEEE Regulations and includes:-
  - Location/contact details
  - Projected weight of EEE put onto the market
  - Projected weight of WEEE arising
  - Weight of WEEE to be recovered, reused, recycled and disposed
  - Recovery operators to be used.

A notice of availability of the plan is to be prominently placed at the producer premises.

- On renewal of registration, a report specifying the steps taken to comply with the WEEE Regulations during the relevant period and results of those steps is to be available in line with the content defined in Part 2, Schedule 8 of the WEEE Regulations.

A copy of the Waste Management plans and reports are to be submitted to the Environmental Protection Agency with an administration fee and also to be provided free of charge to any persons requesting it.

### 5.3 What are the obligations and timescales of the RoHS legislation?

Under RoHS, EEE in categories 1-7 and 10, subject to certain exemptions, placed on the market from 01 July 2006 cannot contain, other than permitted trace levels, the following substances:-

- lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and Polybrominated Diphenyl Ethers (PBDE),

When designing and manufacturing EEE, producers are obliged to eliminate these substances subject to the exceptions specified.

Commission Decision of 18 August 2005 (2005/618/EC) amending the RoHS Directive sets the permitted trace levels as a maximum concentration value of 0.1% by weight in homogenous materials for lead, mercury, hexavalent chromium, PBB and PBDE and of 0.01% for cadmium.

The exceptions are medical devices (category 8), monitoring and control equipment (category 9) and applications of lead, mercury and hexavalent chromium specified in Annex 1 of the RoHS directive e.g. lead in the glass of cathode ray tubes, electronic components and fluorescent tubes or lead in solders for servers, storage and storage array systems (excepted until 2010). Exempted applications are typically because the technology for an alternative is not yet feasible. When these become feasible, these applications are likely to be incorporated in the RoHS scope. Exceptions are under ongoing development by an EU Technical Advisory Committee. Developments in this area can be monitored from the [EU WEEE and RoHS](#) website.

Eliminating lead in solder is a key element of RoHS, but there are also issues with component finishes, temperature ratings, board finishes and flame retardancy. The transition to lead free is well advanced with lead free solder alternatives available on the market. OEMs of EEE such as Sony, Ericsson and Philips are at an advanced stage in redesigning products for RoHS compliance with lead free products already on the market

#### 5.4 Enforcement of WEEE and RoHS

Non registered producers are prohibited from putting EEE on the market. Penalties for non compliance on summary conviction are €3,000 and/or 12 months in prison and on indictment up to €15million and/or 10 years in prison. Where offences continue after conviction, the fines are €1,000 per day and after indictment €130,000.

The Environmental Protection Agency (EPA) will take the lead role for enforcement of WEEE producer responsibility obligations, collection and treatment facilities, particularly for those producers opting for self compliance. The EPA will be the sole enforcer for RoHS compliance.

#### 5.5 Summary of the WEEE and RoHS timescales

The key requirements, Irish implementation activities and associated deadlines are outlined below.

<b>Date</b>	<b>Action Required</b>
20 July 2005	Deadline for Producers for submitting an application to WEEE Register
13 Aug. 2005	<p><i>WEEE Directive comes into force:-</i></p> <ul style="list-style-type: none"> <li>• Introduction of free collection/take back scheme for household WEEE;</li> <li>• Registration of all producers;</li> <li>• Unique registration number to be displayed on invoices, credit notes, dispatch or delivery dockets;</li> <li>• EEE information and marking required;</li> <li>• Financial guarantees to be in place (exemption for participants in an approved collective scheme);</li> <li>• Provision of waste management plans and notice of their availability (exemption for participants in an approved collective scheme).</li> </ul>
31 Dec. 2008	<ul style="list-style-type: none"> <li>• All EU Member States to be collecting on average 4kg of WEEE per inhabitant annually.</li> <li>• Specified WEEE recycling and recovery targets to be met.</li> </ul>
01 July 2006	<p><i>RoHS Directive comes into force:-</i></p> <ul style="list-style-type: none"> <li>• EEE put onto the market cannot contain lead, mercury, cadmium, hexavalent chromium and flame retardants PBB</li> </ul>



	<p>&amp; PBDE.</p> <ul style="list-style-type: none"><li>• Producer registration to show RoHS compliance.</li></ul>
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### 5.6 Further Information

For copies of the directives see:-

[WEEE Directive](#)

[WEEE Directive Article 9 declaration](#)

[RoHS Directive](#)

For copies of the Irish implementing legislation and their explanatory notes see:-

[SI 340 Waste Management \(Waste Electrical and Electronic Equipment\) Regulations 2005](#)

[Explanatory Notes regarding SI 340 2005](#)

[SI 341 Waste Management \(Restriction of Certain Hazardous Substances in Electrical and Electronic Equipment\) Regulations 2005](#)

[Explanatory Note in respect of RoHS Regulations SI 341 2005](#)

[SI 290 Waste Management \(Electrical and Electronic Equipment\) Regulations 2005](#)

[Explanatory Note in respect of the Regulations Amending the Waste Management Acts SI 290 2005](#)

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## 6.0 Ecodesign requirements for Energy Using Products (EuP)

Directive 2005/32/EC establishing a framework for setting ecodesign requirements for Energy Using Products (EuP) and amending Council Directives 92/42/EEC, 95/57/EC and 2000/32/EC was issued on 06 July 2005 and is effective from 11 August 2005. Implementation of this directive in Ireland and other EU Member States is required by 11 August 2007.

This directive is a further piece of Extended Producer Responsibility (EPR) legislation requiring manufacturers to manage and take responsibility for **all** lifecycle stages of the products and/or services they provide. It is a key part of the EU Integrated Product Policy (IPP) which focuses on reducing the environmental impacts of products and/or services throughout their entire lifecycle as distinct from at a production process level which has been the traditional approach. It results from the recognition that EuP through their life cycle are associated with significant environmental impacts such as climate change linked to energy consumption, material use linked to consumption of limited natural resources, waste generation and release of hazardous substances.

The aims of the directive are as follows:-

- to improve the environmental performance of EuP by encouraging manufacturers to design products in an environmentally conscious manner ( a process called eco-design);
- In particular there is a focus on making products more energy efficient and hence contributing to the security of energy supply;
- to ensure the free movement of energy using products based on a coherent EU wide framework designed to prevent market barriers.

This is a framework directive and does not create legal obligations for manufacturers by itself. Sub directives enacting implementing measures on specific products, environmental aspects and ecodesign requirements are to follow.

Based on the sub directives introduced, specific products can only be placed on the market if they comply with the implementing measure. Conformity will be implemented using the existing CE conformity marking scheme. Before placement onto the market the manufacturer will be required to declare that the EuP complies with the implementing measure in order to obtain the CE mark. The elements to be included in the declaration of conformity are specified in Annex VI of the directive.



## 6.1 Products Applicable

The sub directives can apply to any product using energy to perform it's function. This is a shift in policy from the specific product focused approach seen in existing EPR legislation (e.g. the End of Life Vehicles directive for vehicles, Packaging directive for packaging and Waste Electrical & Electronic Equipment (WEEE) and Restriction of Hazardous Substances (RoHS) directives for electronics). The intention is that this broad brush approach will result in quicker environmental performance improvements especially regarding energy efficiency.

Criteria for selecting products are specified in Article 12 of the draft directive and include:-

- energy using products sold in high volumes in the EU;
- having significant environmental impact;
- presenting significant potential for improving environmental performance without entailing excessive costs;
- community environmental priorities.

The directive is applicable to product components as well as finished products and is to exclude vehicles as they are considered covered by other legal and market instruments. For the products specified in subsequent implementing measures, application is for all products placed on the EU market whether the manufacturer is in the EU or outside to avoid a trade barrier being created.

Products with high CO<sub>2</sub> reduction potential are likely to be focused on. Priority product groups to be targeted initially by the sub directives are:-

- Heating and Lighting;
- Electric motors;
- Domestic and offices appliances;
- Consumer electronics;
- Air conditioners.

## 6.2 Ecodesign requirements

The aim of the directive is for eco-design to be applied to the design of EuP in order to produce products with improved environmental performance. The ecodesign process proposed is specified in Annex 1 of the directive. Overall, this is a simplified ecodesign approach designed to assess the main environmental impacts of the product throughout the product lifecycle and implement strategies to eliminate or minimise these and improve the environmental performance of the product. Particular environment aspects focused on are energy consumption, emission of pollutants to all media (e.g.



emissions of greenhouse gases, acidifying and ozone depleting substances), use of natural resources, use of hazardous materials, increasing end of life reuse and recycling. Specific requirements for improving the environmental performance of a product may be made in future implementing measures. Energy consumption and emission of greenhouse gases is noted as one example where quantified targets will be set. An “ecological profile” describing the significant environmental aspects associated with the product over the lifecycle is to be developed. The ecodesign process can incorporate a Life Cycle Assessment (LCA) (a comprehensive, quantified assessment of all life cycle environmental impacts) as per the ISO LCA standards (ISO14041-43), where relevant. However, this is seen as not necessary to all cases and could be especially onerous for SMEs, hence is not obligatory. Annex II specifies the method for specifying the requirements for ecodesign. In order to comply and obtain the CE mark, the ecodesign provisions will have to be met. Products with an existing EU eco label and other EU defined labels (Energy Star, Energy Labelling) (see section 7.0 Eco-labels) are considered in compliance. As described in Annex V of the directive, companies with an Environmental Management System (EMS) incorporating their products and an ecodesign approach as specified can also prove compliance.

### 6.3 Further Information

For a copy of the directive see [Ecodesign Requirements of EuP Directive](#)

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## 7.0 Eco-labels

A range of environmental product labeling schemes are operating in the marketplace to identify, brand and market environmental credentials of products. These include the Energy Star, European Energy Label, Nordic Swan, Blue Angel, EU Eco Label and Forest Stewardship Council.

EU legislation enabling producers to voluntarily register their product for an EU Eco-Label has been in place for some time. One aim of this legislation is to increase the market for 'green' products, by allowing compliant firms to use the label to brand and market their products in order to demonstrate their environmental commitment and performance. Legislation regarding the EU Eco-label was revised in 2000 as Regulation (EC) No 1980/2000 on Eco-labeling of Products. Under this legislation, environmental specifications for fifteen categories of products (to include computers, furniture, textiles, detergents, paper, paints, varnishes and soil improvers) are currently in place, with new categories being regularly added. If products meet these specifications, their producers can apply for and maintain an EU Eco-label accreditation. Further information is available from the EU ecolabel website at <http://www.europa.eu.int/comm/environment/ecolabel/index.htm>

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## 8.0 Product standards

Internationally, a number of ISO Standards relating to reduced environmental impact of products are already in place with more being developed as part of the environmental ISO 14000 suite of standards.

These include;

- [ISO 14062 - ISO /TR 14062 Integration of Environmental Aspects into Product Design and Development](#) ;
- ISO 14040 – 43 & 14048 – Life Cycle Assessment;
- ISO 14020- 21 –Environmental labels and declarations.

ISO14062 is a guidance standard providing a generic specification for how to incorporate environmental criteria into product design and development applicable to all industry sectors. Certain industry sectors have developed similar sector specific standards. These include:-

- [Standard ECMA - 341, "Environmental design considerations for electronic products"](#) developed by ECMA International contains requirements, recommendations and a checklist for the design of commercially viable, environmentally conscious ICT and consumer electronics products
- Packaging – Requirements for packaging recovery by material recycling EN/BSI 13420:2000
- Packaging and the environment – Terminology EN/BSI 13193:2000

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