



Managing End of life (EOL) Gas Discharge Lamps

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Scope

- ★ Who are Balcan?
- ★ Why Recycle?
- ★ Current Legislation
- ★ Current EOL Recycling
- ★ Business model comparison
- ★ Transportation
- ★ Remote Crushing
- ★ Mercury Emissions
- ★ Typical Plant Overview
- ★ The Balcan Philosophy
- ★ Any Questions?



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Who are Balcan?



- ✦ Established in 1972. Privately owned Business with state of the art UK Headquarters
- ✦ Controlled and sustainable growth year on year through innovation, re investment, plant efficiencies and most importantly our long serving highly trained team (last 5 years average 24% increase in t/o)
- ✦ Leading designers, manufacturers and users of our British made recycling equipment – providing clients with the most practical and cost effective proven solutions.
- ✦ Recognised as the industry innovators – have brought to the market advanced lamp disposal methods since 1980
- ✦ GEODIS – approved; recognised as one of the best recycling plants in Europe and have set the standard for lamp recycling in the UK.
- ✦ The Queen's Awards for Enterprise 2006 – for the design and use of our Waste Lamp Recycling Plant used in conjunction with our fleet of vans fitted with crushers for on-site crushing. This is recognised to be the best business award that any company can win
- ✦ ISO9001:2000 accredited - for the full traceability of recycling and disposal services for 'end of life' gas discharge lighting sources
- ✦ Industry recognised with award winning products and services
- ✦ Suppliers of lamp recycling products and services to all areas of household and non household business.



Why Recycle

- ★ One fluorescent tube contains enough mercury to pollute 30,00 litres of water.
- ★ Lamp materials are in general 94% glass, 5% ferrous and non ferrous metal and 1% phosphor powder – why throw these precious commodities away
- ★ Landfill space is at a premium throughout Europe – no where to go!
- ★ Environmental awareness from all parties
- ★ Governmental (EU) legislation



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Current Legislation



- ★ All Mercury lamps are classed as hazardous waste, under the European Waste classification scheme (EWC)

- ★ The transport handling and treatment of EOL's is legislated through:
 - Waste carriers licence
 - Treatment exemption- lamp crushing
 - Waste management licence
 - The WEEE directive (Waste Electrical and Electronic Equipment)



Current EOL Recycling

- ★ Approximately 120 million gas discharge lamps sold per year in the UK of which in 2007 approximately 30% were recycled.
- ★ Recording of EOL recycling was established in the UK in 2001 - approx 4 million recycled.
- ★ In comparison in 2004 EOL recycling rose to approximately 12 million lamps.
- ★ UK EOL recycling year on year has since risen to date to approximately 36 million
Targets under the WEEE directive are 80% recycling of separately collected lamps of which under WEEE the producers have the responsibility to recycle 80% of the components.
- ★ At present in the UK it is estimated that only 10% of recycled lamps are from household end users.



Business model comparisons

Traditional Recycling Business Model
High Environmental Impact

V's

Balcan Recycling Business Model
Low Environmental Impact



Transportation

Whole tube transportation

4 x lorries 84,000 lamp tubes



Traditional Recycling

Pre crushed tube transportation

84,000 lamp tubes



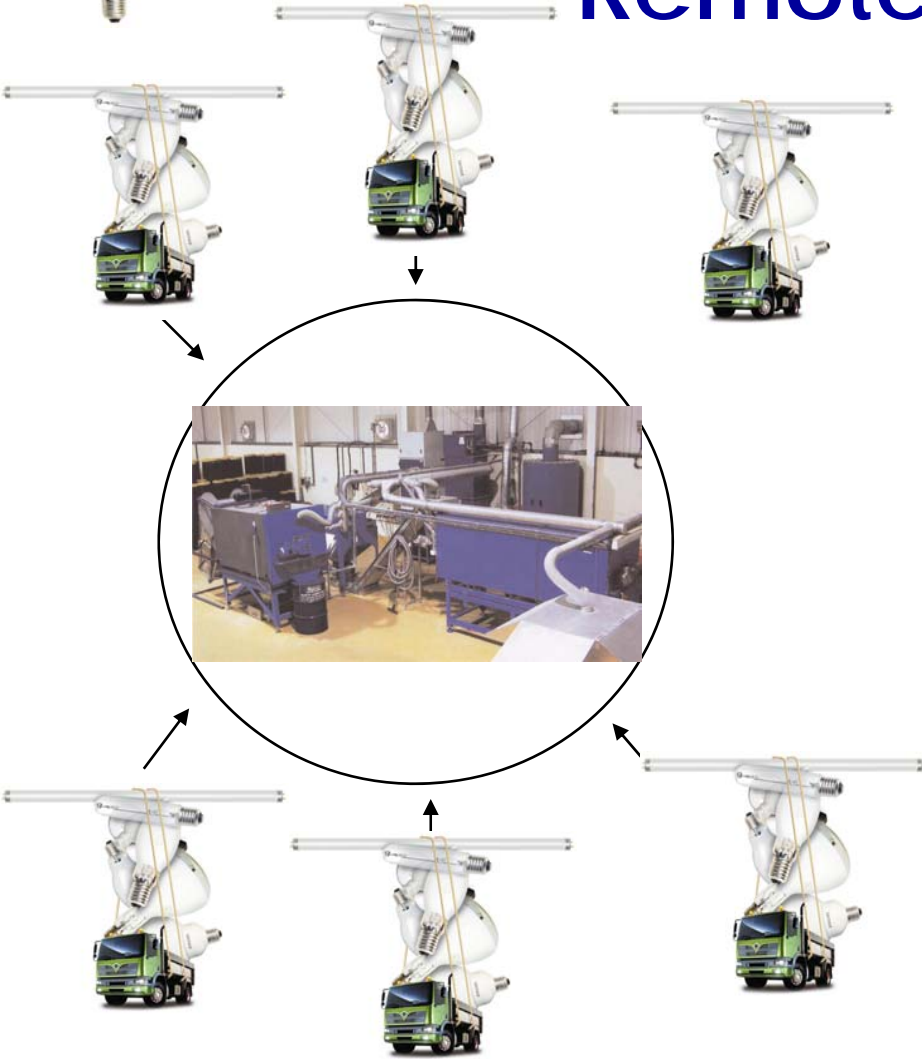
4:1 ratio

Lorry carries 140 drums (210ltr) containing an average of 600 crushed lamps/drum

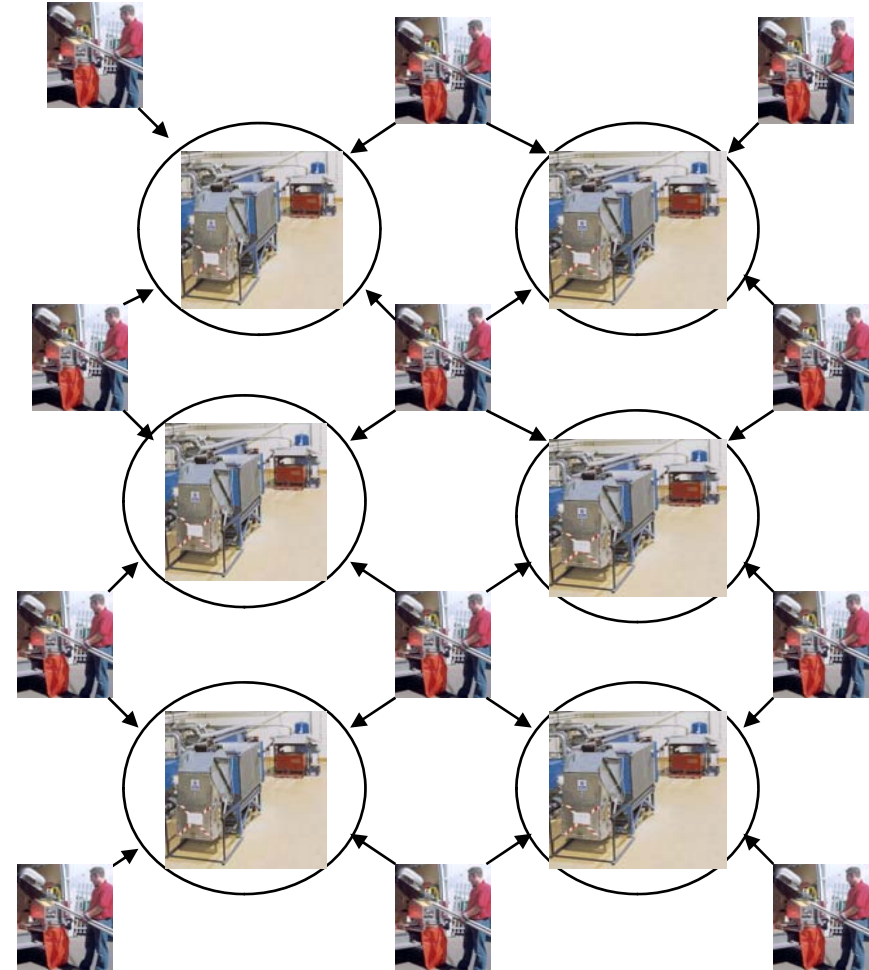
Balcan Methodology



Remote crushing



Traditional Recycling



Balcan Methodology



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Mercury Emissions



Approx 1 to 3% breakage
(Av.600 lamps broken per load)

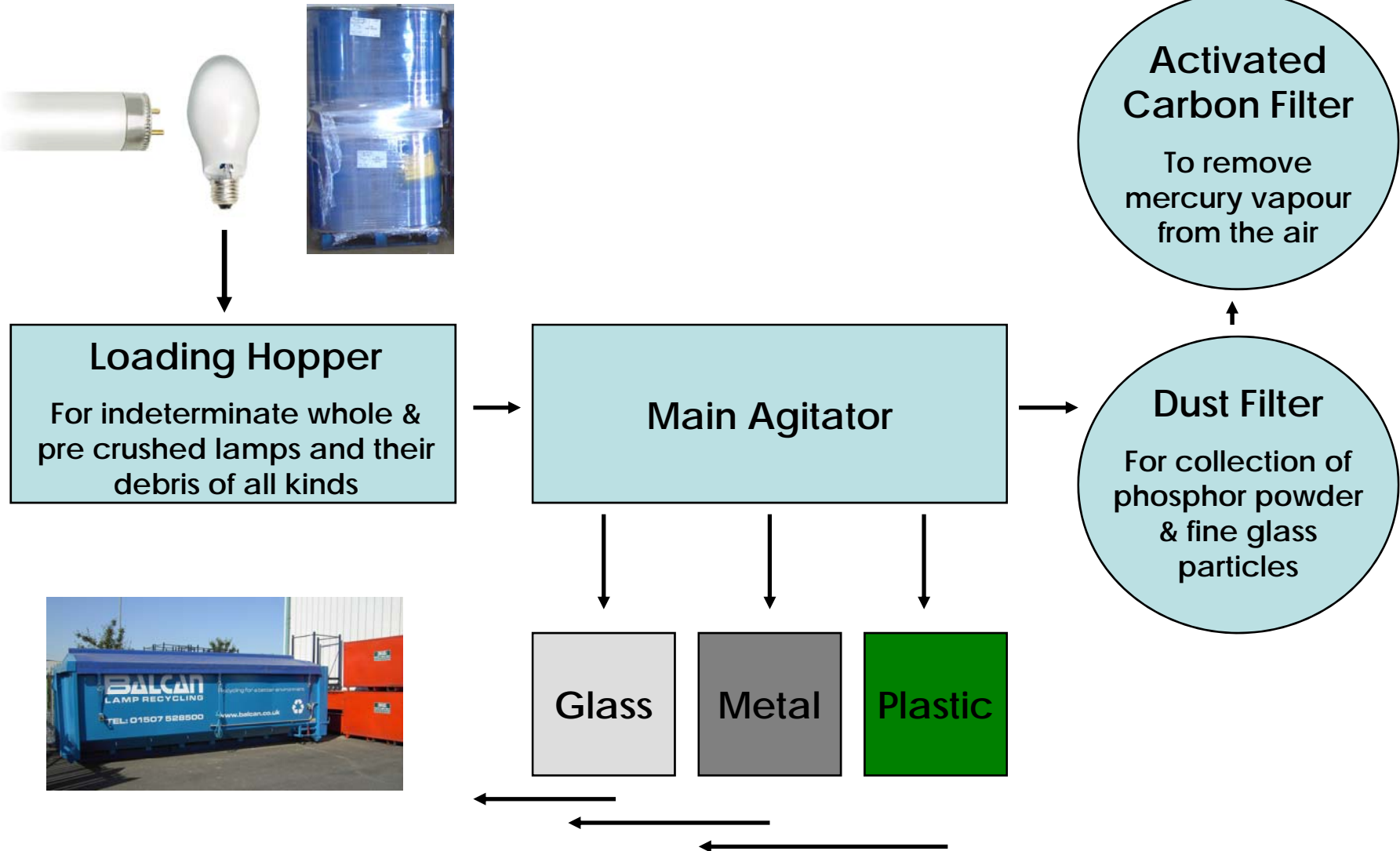
0% emission – safely contained

Traditional Recycling

Balcan Methodology



Typical Plant Overview





Balcan's Philosophy

- ★ What we sell – we know works – because we use it ourselves
- ★ We are solution providers
- ★ Keep it simple safe and easy to use
- ★ Efficiency – focusing on all aspects of the products and process
- ★ Share our recycling business model with others
- ★ Customer service - referral and repeat business is our business.

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Any Questions



Your total Recycling Solution

Large enough to cope - small enough to care



Quality Endorsed Company



Designed & built in Britain



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FOR ENTERPRISE:
INNOVATION
2006