



Friends of the Earth Scotland Policy Briefing

Proposed Incineration Plant at Loganswell

Introduction

Friends of the Earth Scotland welcomes the opportunity to brief ahead of Jackson Carlaw's debate on the proposed incineration plant at Loganswell in Eastwood. This briefing sets out some of our specific concerns with the proposal before turning to some the wider lessons for waste policy in Scotland.

The Developer's track record

The company behind the Loganswell proposal is 'Lifetime Recycling Village' (LRV). The Chief Executive of LRV is Brian Kilgour. Kilgour was fined in 2009 for waste offences having allowed general mixed waste including carpet, plastics, wood, foam and paper to be deposited when building a car park in Fenwick, in contravention to waste regulations¹.

The developers have no direct experience of this nature of development, although it appears they are collaborating with, or licensing technology in conjunction with, a UK company called Green Energy Parks, which has planning permission for a similar development in Peterborough and another proposal under discussion in the West Country.

Too big, and inefficient

Scotland's Zero Waste Plan seeks to maximise high quality recycling, and to maximise energy recovery from unavoidable residual waste. It therefore makes a presumption against large, inefficient incinerators, and prioritises separated collection of waste. Yet the LRV plan is based on taking 1.5million tonnes of mixed waste each year into the site. Even on the company's own figures only 40% of this would be recycled. SEPA, analysing the same data, concluded that the actual recycling rate would be just 5%.

It is not clear in detail exactly what waste treatment technologies would be used. The specific technologies LRV refer to in their published materials are considered below:

1. Optical separation

'Optical separation' of recyclables from mixed waste is typically used to identify different plastics, as part of multiple screening systems in a materials reclamation facility, or to separate different metals. Yet all mixed waste systems are poor compared with separated collection, and such a system would be at odds with current Scottish Government policy on zero waste and waste separation.

2. Incineration by gasification

Gasification of the residual fraction (described as biomass, but inevitably contaminated due to poor separation), is marginally preferable to mass-burn incineration. Gasification can be energy intensive, and the CO₂ in the waste is then released on combustion of the synthetic gas created. Recent research into the carbon balance of biomass energy systems has revealed that they only become carbon neutral in acceptable time periods with high levels of heat capture. SEPA has noted however, that the location of this plant is not conducive to efficient heat recovery. Anaerobic digestion (AD) of biomass wastes to produce biogas would be strongly preferable and separation of food and green wastes for AD is current Scottish Government policy.

3. Plasma vitrification

'Plasma vitrification' utilises the output residue from gasification to produce materials that can be remanufactured. LRV allege they will produce glass, metals, minerals and compounds. This sounds experimental and unproven given plasma vitrification is typically used for management of toxic wastes, converting them into a construction aggregate (ie very low grade product). Plasma vitrification also requires very high temperatures, so is very energy intensive.

4. Energy production

LRV claims the proposed plant will generate enough energy to power 100,000 homes. Although they don't specify, the wording implies electricity, not heat. In this case it would be breaching SEPA's thermal treatment guidelines. Moreover, any thermal treatment of waste that could have been recycled will only recover a fraction of the energy that is otherwise wasted in the production of new materials. Recycling is consistently more energy efficient than virgin production.

Wider lessons for Scotland's waste policy

The actual amount of waste produced in Scotland is still rising.ⁱⁱ Until the issue of waste reduction is tackled, speculative proposals such as LRV will become increasingly common, and if allowed to proceed, will undermine efforts to achieve zero waste. At the same time, the unintended consequences of the landfill directive in driving diversion to incineration means a direct policy response to incineration is required. The following proposals should be considered in order to reduce waste and prevent incineration.

- **Waste reduction targets:** Ambitious waste reduction targets and an effective programme to deliver them should be established alongside the measures set out in Scotland's Zero Waste Plan to increase recycling rates to 70%. The mechanisms available to achieve these targets include local taxation, education and regulation.ⁱⁱⁱ
- **Moratorium on large incinerators and strict rules for others:** A moratorium on incineration proposals above 50 MW should be considered. Alongside this there must be strict rules on facilities only being allowed to handle segregated rather than mixed waste. Similarly energy recovery must include heat recovery, preferably via anaerobic digestion.
- **Selective material incineration bans:** Scotland also needs to give consideration to selective incineration bans to complement proposed landfill bans. This approach has been effective in Flanders, helping achieve a 70% recycling rate. While the Scottish Government and a variety of UK parties have committed to landfill bans, incineration bans must also be taken up in order to drive investment towards reduction and recycling.

Conclusion

The Loganswell proposal seems to be a speculative, ill-formed proposal that runs counter to Scottish Government policy. To prevent similar proposals in the future Scotland needs to reduce the level of overall waste through waste reduction targets and prevent incineration through selective product incineration bans and a moratorium on large scale incinerators.

For further information contact: Francis Stuart, fstuart@foe-scotland.org.uk, 0131 243 2700 or Juliet Swann, jswann@foe-scotland.org.uk, 0131 243 2722

i http://www.sepa.org.uk/about_us/news/2009/waste_offences_cost_ayrshire_w.aspx

ii Overall waste is growing by 1% per year, Waste Aware Scotland, Waste Figures 2006-2007: http://www.wasteawarescotland.org.uk/html/aboutwaste_figures.asp

iii Some of these levers are contained within the Climate Change (Scotland) Act and should be explored further