

12 March 2008

REVISED

Statement to the West of England Waste Management and Planning Partnership  
Member Project Board Meeting 12/3/08 on behalf of Bristol Friends of the Earth

Reservations about the plans to use PFI to bring incineration back to the West of England have been expressed at:

- The West of England Joint Overview and Scrutiny Reference Group;
- Bristol City Council's Physical Environment Scrutiny Commission; and at
- Bristol City Council's Climate Change Select Committee

B&NES Council has expressed similar reservations about the plans, and has withdrawn from Phase 3 of the Joint Residual Waste Strategy.

How many other pointers that incineration is 'a very bad idea' do the other Councils need?

We have already put the case against incineration in our previous statement to the Project Board, but to summarise, incineration...

**1. Encourages more waste** Incinerators need fixed quantities of rubbish. Authorities that have chosen incineration, have correspondingly low recycling rates. Contracts also tend to be very long (25 years), meaning that we will have no way to adapt positively to changes in the waste make-up and volume.

**2. Generates energy inefficiently** Incinerators that generate electricity produce more greenhouse gases than gas fired power stations. We are very unlikely to get a CHP incinerator which would operate at 50–70% efficiency. The market is more likely to want to build an electricity-only incinerator, which will operate at around 27% efficiency. Incineration does not generate renewable energy – burning plastic just substitutes one fossil fuel for another.

**3. Wastes energy** Recycling saves far more energy than is generated by burning waste because it means making fewer new things from raw materials.

**4. Causes pollution** Smoke, gases and ash from incinerators can contain harmful dioxins which are a cause of cancer. There are also a lot of heavy metals left in the ash.

**5. Does not make waste go away** Incineration reduces waste to around 40% by weight, 25% by volume. Much of the ash needs to be disposed of to hazardous landfill.

The Joint Residual Waste Strategy has not been revised fully to take account of recent changes:

- If the West of England is really concerned about minimising the amount of waste to be incinerated, why hasn't the proposed capacity of the incinerator been scaled-down to remove B&NES' 32,000 tonne contribution?
- Similarly, if Ethos are going to be ready to handle MSW in August, why hasn't the proposed capacity been scaled-down to take account of Bristol's 30,000 tonne pyrolysis contract?
- If, as is asserted in Bristol City Council's recent 'Our city' newsletter: "Around 73% of household waste can easily be recycled in Bristol", then why don't we have ambitious recycling targets in place?
- If South Gloucestershire adopt the target of 50% minimum recycling in 2010 from their Draft Waste Strategy, why is the Partnership still sticking to an unambitious target of 50% by 2020?

- The cost of incineration has risen substantially recently, meaning that the projected costs in the Strategy should be revised.
- All four West of England councils are signatories to the Nottingham Declaration on Climate Change. How can this be reconciled with choosing to adopt the worst waste solution (after landfill) in terms of climate change impacts?
- HM Revenue figures showed a drop of 5% in the amount of active material being landfilled in the last quarter of 2007, compared to the same period in 2006. Nationwide, this would be the equivalent volume of waste that would be handled by 7 x 250,000-tonne incinerators. Why haven't the WoE waste volume projections been revised downwards accordingly?
- Speaking at Bristol City Council's recent PESC meeting, Jacobs' consultant admitted, "The exercise of predicting future waste arisings is fraught with uncertainty", so why are we considering a solution that offers us the least flexibility for dealing with changes in waste volume and composition?

Since submitting this statement, I've seen that the Phase 3 capacity has been scaled down from 200,000 to 160,000 tonnes. However, the West of England are still considering delivering a facility up to 260,000 tonne capacity if that is what the waste industry wants to deliver. Excess capacity would be used to handle commercial waste. In such a scenario, we would be using public money to build a facility that then subsidises industry to burn waste rather than recycle. So while the public drives up recycling, their environmental efforts are negated by industry take-up of subsidised incinerator capacity.

The most disappointing aspect of the Joint Residual Waste Strategy, is that it starts well with Phase 1, and may well deliver a good environmental solution throughout Phase 2, but has as its ultimate goal the worst possible environmental option for Phase 3. Officers keep asserting that MBT was discounted as too risky to use for Phase 3, yet it is now seen as perfectly sound for Phase 2. We believe that incineration's lack of flexibility to deal with changes in the waste stream was not taken into account in the risk assessments of the waste technology options. Nor has MBT been reassessed in the light of the past 2 years' operating experience.

We object to the proposed consultation period for the Joint Core Waste Strategy. Using the run-up period to Christmas, or other peak holiday periods, has become standard practice for burying consultations where Councils want to minimise the number of objections. We request that the consultation period be extended to 10 weeks, running earlier, or into January (legislation requires a 6-week consultation period, but does not demand that consultation ONLY lasts for 6 weeks).

We urge Bristol, North Somerset and South Gloucestershire Councils to follow the lead of B&NES, and reject Phase 3 of the Joint Residual Waste Strategy. We think that MBT can deliver the best solution for dealing with residual waste in the West of England. It offers the best solution in terms of climate change impacts; it can be funded by PFI; it is bankable; and there are other authorities that have already chosen to go down this route.

**Jane Stevenson**

Bristol Friends of the Earth

Also attached to this statement is our briefing:

**MBT case studies**

MBT is the preferred waste disposal technology of National Friends of the Earth. The attached briefing lists MBT plants operating in the UK, and those in the pipeline. We include these case studies to illustrate where other authorities have opted for MBT, and to present MBT as a viable alternative to incineration-based EfW.

30 January 2008

## MBT case studies

National Friends of the Earth recommend MBT with the stabilised output sent to landfill, as the best way of dealing with municipal residual waste. MBT performs well against other waste disposal processes in terms of its relative climate change impacts. MBT plants are flexible and modular so can be scaled up and down, allowing capacity to be adjusted to meet demand. MBT can also be used to generate energy from waste, if the biogas generated by the process is used to generate electricity. (Friends of the Earth do not support the production of solid recovered fuel at the end of the MBT process. Referred to elsewhere as SRF or RDF.)

This briefing reviews MBT plants already in operation in the UK, and those in the pipeline.

### **Lancashire – Global Renewables**

<http://www.globalrenewables.com.au/>

- Lancashire Waste Partnership has signed 25-year, £25 million contract with Global Renewables
- GR will deal with 600,000 tonnes of waste per year
- Aiming for 58% recycling and composting by 2015
- 2 plants in Leyland and Thornton will each have a 170,000 capacity MBT plant

The process treats residual household rubbish by separating the organic material and producing a combination of bio-gas and an organic growing medium (OGM). The organic waste is stabilised to levels that allow landfilling of residues in compliance with the Landfill Directive and the Waste Emissions Trading Act 2003. The process also involves intensive recovery of paper, plastic and metals for recycling.

Global Renewables' process will save a minimum of 54% of residual rubbish from landfill and 82% of its biodegradable content (BMW). It is this biodegradable municipal waste (BMW) against which the Landfill Allowance Trading Scheme (LATS) allowances is measured. Global Renewables' proposal will also divert 95% of separately collected recycle and 93% of separately collected kitchen and garden waste from landfill.

Reference: ENDS Report 386, March 2007, p 16 'Lancashire plumps for compost-producing MBT'

### **Poole, Dorset – New Earth Solutions**

<http://www.newearthsolutions.co.uk/>

- Has signed a 5-year waste disposal contract with Bournemouth
- Dealt initially with 10,000 tonnes of waste per year, to be scaled up to 70,000 in line with LATS targets
- Organic output likely to be used in land restoration, although could be landfilled

It does not produce RDF and the residue counts towards LATS targets.

In-vessel technology is used to compost organic waste from Bristol city council, Surrey county council, Eastleigh borough council and supermarket giant Asda.

The facility also acts as a mechanical biological treatment (MBT) plant to treat residual waste from Bournemouth borough council, by using the same kind of enclosed vessels to break down the waste after recyclables have been extracted.

References: ENDS Report 381, October 2006, pp 17–18 'First MBT diversion rates revealed'  
[http://www.letsrecycle.com/do/ecco.py/view\\_item?listid=37&listcatid=217&listitemid=9605](http://www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=217&listitemid=9605)

See also

[http://www.letsrecycle.com/info/waste\\_management/news.jsp?story=5898](http://www.letsrecycle.com/info/waste_management/news.jsp?story=5898) and  
[http://www.letsrecycle.com/do/ecco.py/view\\_item?listid=37&listcatid=315&listitemid=9216](http://www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=315&listitemid=9216)  
'MBT technology can divert over 80% of the biodegradable content of mixed waste from landfill'

### **Waterbeach, Cambridgeshire – Donarbon**

Planners in Cambridgeshire have given the green light to a mechanical biological treatment (MBT) facility to process up to 188,000 tonnes of waste a year.

The new plant will sort out materials such as metals and plastics for recycling and compost the remaining fraction to reduce its biodegradability over six weeks to produce grey compost. This could be used as a low-grade compost or deposited to landfill.

Mark Shelton, waste policy manager for Cambridgeshire county council, stated that Cambridgeshire considered the production of a compost material more environmentally friendly than the solid recovered fuel produced by some MBT processes.

Reference: Letsrecycle: MBT facility approved for Cambridgeshire 28-03-2007  
[http://www.letsrecycle.com/do/ecco.py/view\\_item?listid=37&listcatid=226&listitemid=8585](http://www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=226&listitemid=8585)

### **Essex MBT plant (Stanway Hall Quarry) – Cory Environmental**

<http://www.coryenvironmental.co.uk/page/news.htm&action=10>

Permission for the Mechanical and Biological Treatment (MBT) and Anaerobic Digestion (AD) plants was granted by Essex County Council to Cory Environmental on 28 September.

- AD plant will process up to 50,000 tonnes a year of green waste and organic kitchen waste and will generate electricity for the local area.
- MBT plant will process up to 250,000 tonnes a year of other household waste, after dry recyclables such as paper and glass have been removed from the waste.
- The plants will be in wholly enclosed buildings and will have a lifespan of some 25 years. The residue from the plants will be used to restore the 7.3 million cubic metre quarry for recreational purposes.

### **Merseyside MBT plant – Cory Environmental**

<http://www.coryenvironmental.co.uk/page/news.htm&action=2>

The Bedminster technology is a Mechanical Biological Treatment (MBT) system which uses a large rotating steel drum to convert biodegradable waste to bio-fuel or raw compost. While it will be the first Bedminster facility in the UK, the waste treatment technology is already processing waste in 12 plants across the world including North America, Australia and Japan.

- Initial capacity of 120,000 tonnes a year.
- Construction of the UK plant is planned to begin before the end of 2007, with the plant operational by the end of 2008.

Reference: 'Bedminster signs agreement for major UK waste treatment facility Date: 06-02-2007'

### **Costessey, Norfolk – Sustainable Resource Management**

(subsidiary of Norfolk Environmental Waste Services Ltd (NEWS))

[http://www.srm-norfolk.co.uk/press\\_release26.10.07.html](http://www.srm-norfolk.co.uk/press_release26.10.07.html)

- Designed to process 150,000 tonnes per year for 25 years
- Construction to begin in Spring 2008, to be completed within 3 years

The MBT plant will use the latest mechanical technology to maximise the recycling and reuse of materials and the production of 'green' electricity by composting. The process complements existing recycling activities, such as dry recyclable waste collections from households and composting of green waste. With MBT and recycling combined, nearly 72% of all household waste generated in Norfolk could be recovered or recycled.

All products produced by MBT will have a use:

- Recyclable material – this is sent to processing plants throughout the UK and Europe.
- Biogas – used to generate green, renewable energy.
- Stabilised soil-like material – for a range of uses including quarry restoration and landscaping.

The MBT process produces biogas as a natural by-product. This gas can be used as a green source of renewable energy. SRM plan to generate about four megawatts of electricity – enough to power 4000 homes.

Reference: Press Release 26.10.07 'MBT plant given go ahead after clearing final planning hurdle'.

### **Shanks 'Intelligent Transfer Stations' – various UK sites**

From [http://www.shanks.co.uk/shanks/uploads/services/inteltrans/ITS\\_brochure.pdf](http://www.shanks.co.uk/shanks/uploads/services/inteltrans/ITS_brochure.pdf):

- East London Waste Authority, Rainham 180,000 tpa MSW Operating August 2006 (cost £45m)
- East London Waste Authority, Newham 180,000 tpa MSW Operating March 2007
- Dumfries & Galloway Council, Dumfries 60,000 tpa MSW Operating September 2006
- Cumbria County Council 2 x 70,000 tpa MSW Preferred Bidder 2010/2011

The key output from the process, Solid Recovered Fuel (SRF) can be converted into heat or electrical power using conventional thermal or advanced conversion technology techniques.

Shanks has a 25 year waste disposal contract with the ELWA.

### **Oldham (Greater Manchester) – Viridor / Laing**

<http://www.viridor-waste.co.uk/index.php?menu=news&category&id=232>

In January 2007, the Greater Manchester Waste Disposal Authority (GMWDA) selected a consortium of Viridor Waste Management Ltd and John Laing Infrastructure Ltd as the preferred bidder for the Authority's long-term waste management contract (25 years). (NB Contract still not yet awarded as at 23 November 2007 according to gmwda press release)

A new TLS will be developed to enable dry recyclables to be processed and 'bulked up' for onward delivery to recycling facilities. In addition, a state-of-the-art Mechanical and Biological Treatment (MBT) facility including an Anaerobic Digestion (AD) plant will be developed within the current site boundaries. These facilities are important to help Greater Manchester achieve its recycling and recovery targets. The new MBT facility will be capable of processing 100,000 tonnes of waste a year and will be totally enclosed.