



REPORT BACK ON CONFERENCE/SEMINAR

REPORT TO: Scrutiny Board 3 (City Development, City Services, Climate Change, Housing & Sustainability. 20th October 2008

REPORT OF: Cllr Cliff Ridge (Chair of SB3)

TITLE: Visit to Forus Waste to Energy Plant, Stavanger, Norway.

DATE: 24/25th September 2008.

1. Recommendation

The Scrutiny Board is requested to note this report back and to consider the evidence gathered in consideration of the development of the City's Municipal Waste Strategy and scrutiny of proposals for a replacement residual waste disposal facility.

2. Background

2.1 The Board will be well aware of the current consultation exercise currently underway regarding the development of a Municipal Waste Strategy for the City. The Board has also been briefed on the 'Project Transform' partnership with Solihull Borough Council and Warwickshire County Council and will be aware that current advice from officers is that a replacement residual waste treatment facility will need to be procured within the next ten years or so.

2.2 The Council has since 1974 relied on incineration at the Waste to Energy plant to dispose of the City's municipal waste. The Board has resolved to undertake a series of site visits to gain a greater understanding of the different opportunities available for replacements of this facility and for alternative methods of producing energy from waste that could be adopted locally.

2.3 The Board took advice from Waste Services officers and chose to visit sites that met three important criteria. The technologies must be able to treat unsorted domestic 'black-bag' waste, the technology had to have the capacity to produce both heat and power, and it further had to be able to be scaled up to the sort of capacity identified as being necessary to satisfy the objectives of 'Project Transform' (c 300,000 tonnes/pa).

2.4 The visit was attended by Cllr Hazel Noonan (Cabinet Member City Services) Cllrs Cliff Ridge and Keiron Mulhall (Scrutiny Board 3), Andrew Walster (Waste Services Manager) and Peter Barnett (Scrutiny Co-ordinator).

3. Cost of attending

3.1 The total cost for the party of five including flights and accommodation was £2,903.90.

4. Benefits

4.1 More details of the visit will be included in a presentation to be made to the Board at the meeting. In summary however the site visit proved very valuable indeed. Whilst the site does process 'untreated' municipal waste from the local authority partners who have an interest in the plant, this waste is noticeably different from the waste processed at the Coventry plant. This is due to the very high levels of re-cycling achieved by the Norwegian local authorities, (already above the City's 2020 target of 50%). This has evolved over the plant's life however, and the technology providers assured us that the plant would process a more mixed waste stream such as currently produced in Coventry. This flexibility is an asset therefore, in that the plant would not need re-configuration should the waste stream change significantly.

4.2 The system of recycling adopted by the Stavanger region was also of interest. They use a four bin system:

- Paper and card
- Organic material
- Hazardous waste (paint batteries etc)
- Residual waste bin

This operates over a fortnightly collection, and is significantly affected by deposit schemes operated by shops and supermarkets for plastic and glass bottles. Other recyclates are taken to 'bring sites'. Adjacent to the waste to energy plant was a local civic amenity site, which one of the slides will demonstrate was provided at a charge to residents. The region currently recycle 55% of their municipal waste, with 32% being processed by the waste to energy plant and around 11% going to landfill.

4.3 The site was evidently the centre of an exciting business park, and had been used positively by local authorities as a fulcrum for economic development. The plant provides green energy and heating for the businesses on the site and a large area of residential housing stretching up to 4.5km from the plant. The plant would be considered presentable on any business park, and was not particularly noisy or creating any nuisance with odours. The stack at 19m is modest with comparison to 'mass-burn' incinerators visited, and emissions to atmosphere are low.

4.4 The process is a modular one and is relatively straightforward, enabling it to be contained on a fairly limited site. The waste is simply shredded and loaded onto a conveyor, metals are removed by a simple magnet process before processing and dropped into a transport container, the remainder of the material presented is gasified in a two-stage process which results in significant improvements in the amount of heat and energy generated and reduced emissions compared to conventional 'mass burn' incineration. The 'bottom ash' generated by the process is another visual illustration of the effectiveness of the process as it is of a very fine consistency with little evidence of what was originally inputted to the process. The technology suppliers also claim that the bottom ash is only 1% carbon, illustrating the efficiency of the gasification process.

4.5 The plant has been in operation for around 6 years. It was commissioned to manage 38,000 tonnes p.a., however with refinements to its operation it is currently handling around 43,000 tonnes. Apart from a composting facility it is the only waste treatment facility apart from landfill available to the region. The plant was commissioned at the size it was in part to stimulate recycling activity and the local authorities have introduced the recycling package in

stages along with publicity and communication strategies. There is the option in Norwegian law to prosecute non-compliance with recycling regimes.

4.6 Visiting the plant and witnessing at first hand the links between the local authority infrastructure, commercial waste disposal and the interface with the power network was invaluable. The evolution of the plant demonstrates that a gasification/incineration plant can form part of a waste strategy with an emphasis on recycling, if it is developed sympathetically and in partnership with other waste minimisation initiatives. A second line will be brought on stream to deal with waste anticipated from continued economic growth in the area, and will result in further diversion from landfill.

List of background papers

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Further information can be obtained from: Peter Barnett, Performance & Scrutiny Team, Chief Executive's Directorate (tel: 02476 831172)

(Any enquiries should be directed to the above)

Papers open to public inspection

None

Approved by Cabinet on: 23 September 2008