
Report of the Director of Environment and Neighbourhoods

Report to Executive Board

Date: 2nd November 2011

Subject: Residual Waste Treatment PFI Project – Response to Leeds Friends of the Earth Deputation

Are specific electoral Wards affected? If relevant, name(s) of Ward(s): ALL	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are there implications for equality and diversity and cohesion and integration?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the decision eligible for Call-In?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the report contain confidential or exempt information? If relevant, Access to Information Procedure Rule number:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Summary of main issues

A deputation from Leeds Friends of the Earth attended Full Council on 14th September 2011 to deliver a speech and submit a document setting out their views and issues in relation to the Council's Residual Waste Treatment PFI proposals. This paper provides the Council's response to the issues raised by Leeds Friends of the Earth.

Recommendations

The report recommends that Executive Board:

- Note the contents of this report.

1. Purpose of this report

1.1. The purpose of this report is to:

- (a) To provide a response to the issues raised by Leeds Friends of the Earth (FoE) further to the deputation that attended Full Council on 14th September 2011 entitled, “Why Leeds should not be chained to Waste Incineration”.

2. Background Information

- 2.1. The Council has recently concluded the evaluation of the Final Tenders for the Residual Waste Treatment PFI project which will involve the construction and operation of a treatment facility for the municipal waste that is not separated for recycling by householders and currently goes to landfill. Although the appointment of Preferred Bidder is subject to DEFRA and Executive Board approval, Veolia has been identified as having scored highest in the evaluation. Their technical solution consists of mechanical pre-treatment to remove recyclate remaining in the residual waste, with the remainder incinerated under tightly controlled conditions to generate energy.
- 2.2. Regular quarterly meetings are held between the Waste Strategy team and Leeds FoE, who have previously expressed their concerns regarding incineration at these meetings.
- 2.3. These issues were formally presented at Full Council on 14th September 2011, and this was accompanied by a supporting written document entitled, “Why Leeds should not be chained to waste incineration”. This is attached at Appendix A for information. A verbatim copy of the speech is attached at Appendix B.
- 2.4. This paper provides a response to each of the issues raised by Leeds FoE, with the section headings and numbering below cross-referencing the issues within the Leeds FoE paper at Appendix A.

3. Main issues

3.1. ‘There is an alternative....’

- 3.1.1. This section of the Leeds FoE paper focuses primarily on the measures that the Council should be taking to increase re-use and recycling as an alternative to residual waste treatment or incineration.
- 3.1.2. In 2006, the Council adopted its Integrated Waste Strategy for Leeds. This document sets the Council’s objectives for waste prevention, and describes how Government targets for recycling and reducing waste sent to landfill will be met. The Council has set itself a target of recycling over 50% of household waste, and remains committed to its vision of, “a zero waste city, where we reduce, re-use, recycle and recover value from all waste”.
- 3.1.3. Since the strategy was adopted, significant improvements to recycling performance have been achieved, with current performance exceeding

40%. The following represent some of the main service improvements responsible for this increase in performance:

- 3.1.3.1. Introduction of fortnightly garden waste collections to over 190,000 properties;
 - 3.1.3.2. Introduction of food waste collections to 8,400 properties in the Rothwell area, together with a fortnightly SORT (commingled dry recyclables) collection, a fortnightly garden waste collection and a fortnightly residual waste collection.
 - 3.1.3.3. Further progress in closing out remaining gaps in the city-wide provision of kerbside recycling services, with 96% of households now having access to kerbside collection of recyclables.
 - 3.1.3.4. Redevelopment of eight of the Council's nine household waste sorting sites (HWSS) into model recycling centres;
 - 3.1.3.5. Delivery of an ongoing programme of communications activity to promote waste prevention and recycling.
- 3.1.4. In addition to this, the Council continues to implement a programme of initiatives to promote waste minimisation and re-use, including;
- 3.1.4.1. Support of furniture re-use networks and initiatives, and the opening of a re-use shop at East Leeds Household Waste Sorting Site in September 2011;
 - 3.1.4.2. Production of a Leeds Business Waste Handbook to provide advice on how businesses should deal with their waste;
 - 3.1.4.3. Promotion of the Real Nappies Scheme and 'Love Food Hate Waste' campaign;
 - 3.1.4.4. Development of the Leeds Sustainable Schools Framework to encourage sustainable behaviour in both staff and pupils;
 - 3.1.4.5. Continued distribution of home composting bins under the subsidised scheme, with over 15,000 bins now distributed.
- 3.1.5. The Council remains on course to achieve its target of recycling over 50% of household waste, and is currently undertaking options appraisal work to determine the next phase of implementation of the recycling strategy. This will include consideration of collection frequencies and the potential to further increase the range of materials collected.

- 3.1.6. The strategy will include the extension of the provision of food waste collections, and the Council is actively pursuing the opportunity to bring forward an anaerobic digestion solution for processing this waste, together with the associated potential opportunities for renewable energy generation and sustainable fuels.

3.2. Flexibility (1)

- 3.2.1. Veolia are proposing to build a state of the art, modern facility at the former wholesale market site on the Cross Green Industrial Estate. Their facility comprises two main treatments: a flexible Mechanical Pre-Treatment facility to remove a range of recyclable materials left in the residual waste (at least 10% of the residual waste stream); the waste left over will then be burnt under controlled and safe conditions using proven Energy Recovery technology to supply the National Grid with enough electricity to power over 20,000 households.
- 3.2.2. The plant is designed primarily to take Leeds' black bin waste. The first step of the process, mechanical pre-treatment, has a capacity of 183,000 tonnes per annum. The Energy Recovery facility has a capacity of 164,000 tonnes per year, and this reduced capacity is due to the recyclable materials already being extracted by the first process.
- 3.2.3. Veolia have designed the facility based on forecasts for the Council's residual waste that assume that the Council's recycling strategy has been fully implemented and recycling targets exceeded.
- 3.2.4. There is flexibility designed into the facility and contract to accommodate any variations in the Council's forecasts. The minimum tonnage required within the contract is set at level some way below that forecast. Should tonnages fall significantly below forecasts, the Council has access to other residual waste streams (e.g. HWSS residual waste) that is not assumed within the projected waste to be sent to the facility. Beyond this, Veolia will be required to source commercial and industrial waste of a similar nature to household black bin waste from within Leeds to fill any shortfall in plant capacity. The Natural Resources & Waste Development Plan Document (NRWDPD) projects that there are between 350,000 and 500,000 tonnes of waste per year of a similar composition to household waste requiring treatment or disposal within Leeds.
- 3.2.5. Although Veolia's proposed facility is only sized for the City's domestic waste, the Council has also set a contractual restriction on the quantity of waste that can be imported from outside Leeds for treatment at the facility so that it remains a facility for waste produced in Leeds.

3.3. Suppression of recycling and reuse (2)

- 3.3.1. The Council will remain committed to promoting reduction, reuse and recycling initiatives in priority to residual waste treatment in accordance with the waste hierarchy. However, the need for a solution to divert the remaining residual waste from landfill remains a clear priority.

- 3.3.2. The Council is confident that the Veolia solution is a sound environmental option that will contribute significantly to the city's recycling and landfill diversion targets, will provide substantial recovery of value from residual waste in the form of energy, and will secure significant reductions in carbon emissions from the management of residual waste.
- 3.3.3. The table below shows Leeds's NI192 recycling performance compared to the other Core Cities for 2010/11.

RANK	City	NI192 Recycling performance for 2010/11
1	Bristol	37.4%
2	Nottingham	35.6%
3	Leeds	34.7%
4	Newcastle	33.4%
5	Birmingham	31.2%
6	Sheffield	29.3%
7	Liverpool	26.8%
8	Manchester	25.8%

- 3.3.4. The City Council has a target of 41% for 2011/12 and the current year's (2011/2012) performance to date has been in excess of 40%. The City Council is on course to reach its target of recycling over 50% of household waste.
- 3.3.5. To improve our recycling performance based on our current service, we are continually reviewing the performance, efficiency and range of recyclable materials that can be processed by our current contractors.
- 3.3.6. Moving forward, the Council is undertaking option appraisal work to consider the costs and benefits of collecting additional waste streams (e.g. glass and food waste), and reviewing the frequency of kerbside collections. This will also consider the availability of appropriate treatment facilities (e.g. anaerobic digestion). The Council is also proposing to undertake research (with DEFRA WRAP support) to identify the best way of capturing textiles for re-use and recycling (e.g. by working with charities).
- 3.3.7. This work will help to determine the next phase of the implementation of the kerbside recycling strategy, as required in order to meet the 50% recycling target. The initial outcome of this work is expected to be presented to Executive Board in December 2011.
- 3.3.8. Any new service introduced will be supported by a comprehensive communications programme to ensure that householders are able to participate effectively.

3.4. Incineration and climate change (3)

- 3.4.1. The facility will have a large positive benefit towards the climate change agenda by avoided landfill emissions, extraction of recycled materials during pre-treatment, energy generation and recycling from the remaining ash.
- 3.4.2. The facility shows substantial environmental benefits when compared to landfill disposal using the Environment Agency's life-cycle assessment tool, which formed a key element of the evaluation of bidders' proposals. Veolia's proposal demonstrates a potential saving of over 60,000 tonnes CO₂ eq when compared to landfill, and will provide a significant contribution to the Council's climate change targets. This level of carbon reduction equates to the removal of around 29,000 vehicles per annum from the roads.
- 3.4.3. In response to the Council's requirements in relation to the climate change agenda, Veolia have also developed a detailed carbon management plan for the life of the facility, from construction to decommissioning, in order to reduce its carbon impact. This plan sets out targets to continually reduce the carbon impact of the facility year on year.

3.5. The continued need for landfill (4)

- 3.5.1. The two outputs referred to by Friends of the Earth are Incinerator Bottom Ash (IBA) and Air Pollution Control Residues (APC Residues).
- 3.5.2. **IBA** - At the end of the process, there remains approximately 20% of the waste input in the form of a 'clinker' (a black, ashy deposit), and this is called Incineration Bottom Ash. This material is non-hazardous. Veolia will store this in an enclosed bunker at the site for no longer than ten days, before transporting it via the primary road network to a re-processing facility in Sheffield. The material will be further processed to remove any remaining metals which can then be recycled. It is then graded and will be recycled as an aggregate within the construction industry. Veolia will be sub-contracting with an organisation that has a proven track record of securing markets for this material within the construction industry.
- 3.5.3. **APC Residues** - These residues are produced as a result of treating the flue gas with reagents to remove hazardous pollutants. The residues are safely stored on site within a sealed container prior to being removed from site in sealed tankers to a fully permitted disposal facility. This material is classed as hazardous primarily because it consists predominantly of the reagents (e.g. lime) used to clean and neutralise the gases. Whilst the initial intention is to send the material to a hazardous waste storage/disposal facility, options are emerging to treat and recycle this material.
- 3.5.4. **Landfill** – Other than the APC residues, the only elements of residual waste going to landfill will be those that are unsuitable for treatment at the facility, for example due to size or composition.

3.6. Health Impacts (5).

3.6.1. A comprehensive review of the available research into the health and environmental effects of waste management commissioned by Department for Environment, Food and Rural Affairs in 2004 did not establish any link between the current generation of municipal waste incinerators and health effects. The report states the following:

3.6.1.1. ***“We considered cancers, respiratory diseases and birth defects, but found no evidence for a link between the incidence of disease and the current generation of incinerators.”***

3.6.2. In September 2009, the Health Protection Agency also reviewed research undertaken to examine the suggested links between emissions from municipal waste incinerators and effects on health and concluded that:

3.6.2.1. ***“Since any possible health effects are likely to be very small, if detectable, studies of public health around modern, well managed municipal waste incinerators are not recommended.”***

3.6.3. These reports are all available at www.leeds.gov.uk/leedswaste

3.6.4. The technology proposal has a strong, proven track record. Set out below is further information as to how the environmental performance of the facility will be addressed and managed, and how clear assurances can be provided in terms of any concerns about health impacts.

3.6.4.1. *Environmental Statement / Environmental Impact Assessment (EIA)* – An Environmental Statement containing an EIA will be submitted as part of the planning application. The scope of the EIA has been agreed with the Local Planning Authority and is a statutory process. This will have to include: proposals for design, landscaping and screening to minimise visual and noise impacts; assessment of impact of vehicle movements; monitoring of existing background environmental conditions (e.g. air quality); detailed modelling of the dispersion of emissions based on the facility’s specific design and the surrounding topography; a Human Health Impact Assessment. This information will be submitted to the Planning Authority, who will in turn submit it to statutory bodies like the Environment Agency (EA) for comment.

3.6.4.2. *Environmental Permit* - The contractor will then also have to apply separately to the EA for an Environmental Permit which will require stringent environmental conditions to be met.

3.6.4.3. *Environment Agency regulation* - In addition to the above, the EA will monitor and regulate the plant throughout its operational life to ensure compliance with the Permit, including regular

inspections and spot checks, and requirements for the operator to continuously monitor emissions and report to the EA.

- 3.6.4.4. *Technological advances* - Air pollution control technology on Energy from Waste incinerators has also advanced since many of the studies that informed the reviews referred to above were completed, thus delivering further significant reductions in emissions levels.
- 3.6.4.5. *Environmental legislation* - The legislative requirements relating to the EC Waste Incineration Directive, which set specific limits and measurement regimes for individual pollutants, have been tightened in recent years making waste incineration amongst the most tightly regulated of industries.
- 3.6.4.6. *ISO 14001* – The Council is contractually requiring bidders to secure and maintain accreditation to the ISO (International Standards Organisation) 14001 standard throughout the life of the contract. This involves developing and operating a comprehensive system for managing environmental performance, and systematically identifying, assessing and managing environmental risks. This system will be regularly assessed and verified by independent auditors to ensure compliance and continuous improvement in relation to environmental issues.

3.7. Maintenance (6)

- 3.7.1. The proposed technology solution is well proven over decades and Veolia has extensive experience in the operation of such facilities. They have already developed an outline maintenance plan for the facility, which will be further developed prior to operations commencing. The plan demonstrates a proactive approach to maintenance, it will be effective from day one of operations, and includes both planned, preventative and reactive maintenance regimes. This includes annual planned shutdown periods, where essential preventative maintenance work will be undertaken.
- 3.7.2. The EA will ensure that Veolia operates the Energy Recovery Facility in line with the conditions of the Environmental Permit, which are more stringent than for other UK industries. The EA will inspect the facility, review Veolia's monitoring data and carry out their own monitoring to check Veolia's records. If there is any breach of the condition, Veolia must notify the EA and the Council. The Environment Agency can take enforcement action against any operator who fails to prevent harm to the environment or public health.
- 3.7.3. If the Council is concerned that the maintenance obligations are not being complied with by Veolia, the Council may undertake a survey of the facility every two years. If such a survey concludes that there has been a breach of the maintenance obligations, then the Council can oblige Veolia to

rectify this and if they fail to do so then the Council can procure appropriate maintenance work itself. Veolia will be liable for any associated costs.

3.8. Traffic Movements (7)

- 3.8.1. The proposed site is accessed directly off the East Leeds Link Road (ELLR). The ELLR connects to the A1/M1 Link Road, the M621 and the Inner Ring Road at both ends, and therefore provides access to the facility from all major routes into the City. There are existing restrictions that prohibit HGVs, including refuse collection vehicles, accessing the ELLR from the A64 through the closest residential areas of East End Park, Osmondthorpe and Halton Moor.
- 3.8.2. The refuse collection vehicles that will deliver to the facility will not represent new traffic movements as the ELLR is already used by most of the Council's refuse and recycling collection fleet to access the depot in Cross Green Industrial Estate and an existing tipping point at Skelton Grange Landfill site.
- 3.8.3. The ELLR has been designed with the expectation of new development in the area, and therefore there is plenty of spare capacity on this part of the highway network. The planning application will need to include transportation assessments to demonstrate this.

3.9. Employment opportunities (8)

- 3.9.1. The residual waste treatment facility is not an alternative to re-use and recycling initiatives, and these will continue and develop as outlined above. Within the Residual Waste Treatment contract, there will be specific targets in relation to local job creation, apprenticeships and training opportunities, including for long-term unemployed throughout the life of the project, both in construction and operation. It is estimated that there will be approximately 300 skilled and unskilled job opportunities during construction and around 45 during the operation phase of the project. Veolia will work with the Council and local employment support agencies to fill these job opportunities (skilled and unskilled) preferably from the local workforce. They will also work with local colleges to provide work placements, apprenticeships and training opportunities.
- 3.9.2. Veolia are contractually committed to using local suppliers wherever possible for materials, goods and services required for the construction of the facility and during operations.

3.10. Energy production and efficiency (9)

- 3.10.1. Using waste as a fuel is not intended to compete in terms of energy efficiency with fossil fuels. However, as an alternative to landfill where resources are buried in the ground and little or no value is recovered from them it compares very favourably.

- 3.10.2. A significant amount of electricity will be generated by the facility, enough to power around 20,000 properties. This will be supplied directly to the national grid. This provides huge benefits to Leeds and ultimately the residents as the revenues generated from the sale of electricity and recycle offset costs and reduce the charge to the Council for treatment of the waste.
- 3.10.3. In addition to this, the contract has an income sharing mechanism whereby the Council gets a share of any extra income generated by the contractor.
- 3.10.4. The facility will also be designed to generate heat, in the form of hot water or steam, as well as electricity (commonly known as 'Combined Heat and Power' or CHP). This could be supplied to local businesses or new housing in the area. CHP facilities have the potential to be more energy efficient, more environmentally beneficial, and to attract more energy income than 'electricity only' facilities. Veolia are committed to working with the Council to develop a heating scheme in order to secure these benefits.

3.11. Financial standing and other vetting (10)

- 3.11.1. An important consideration for the Council is the financial standing of Veolia and its parent company (Veolia Environmental Services UK PLC). This financial standing was tested at various times prior to and during the bidding process to ensure that Veolia is capable of providing sufficient funds to build and operate the facility. Veolia provided strong evidence, including in the form of corporate accounts, that it is financially robust and capable of delivering a strong financial performance in the coming years, demonstrating that it is therefore able to fund the project. Also the Council has a number of contractual protections (with limited financial exposure) to ensure the successful progress of the project in the unlikely event of Veolia suffering financial difficulties at any time.
- 3.11.2. With regards environmental and health and safety aspects, this information is reviewed by the appropriate officers within the Council in the context of appropriate guidance. In undertaking this review, the Council is seeking to ensure that potential contractors understand their responsibilities in these areas and have suitable and sufficient systems and procedures in place as well as an embedded culture.
- 3.11.3. There is a wide range of environmental and health and safety legislation. The EA and Health & Safety Executive (HSE) are responsible respectively for approvals in relation to these areas, including monitoring and enforcement action.
- 3.11.4. The City Council is not seeking to take on or duplicate the role of the HSE or EA (which have the expertise and statutory powers to carry out these functions), and this would be neither appropriate nor effective.

- 3.11.5. However, the City Council does endeavour to ensure through both the Pre-Qualification Questionnaire and its wider procurement processes that potential contractors:
- 3.11.5.1. take their responsibilities with regards to health & safety & environmental management seriously;
 - 3.11.5.2. operate well managed systems to maintain, review and audit health and safety and environmental procedures;
 - 3.11.5.3. follow the law and good industry standards/guidance; and
 - 3.11.5.4. take advantage of any independent schemes available to help them to do this, for example accreditation to CHAS (the Contractors Health & Safety Assessment Scheme) or OHSAS 18001 (this is an *Occupational Health and Safety Assessment Series* for health and safety management systems or ISO 14001 Environmental Management Standard).
- 3.11.6. It should be noted that companies that have prosecutions for health and safety and environmental breaches are not automatically ruled out of contracting with the City Council. Consideration is given to the circumstances of the enforcement action, lessons learned and improvements made as a result.

3.12. Can Leeds Council pull out of the procurement process?

- 3.12.1. The drivers for the delivery of this project remain unchanged. The need for a solution to divert the remaining residual waste from landfill remains a clear environmental priority and is necessary for Leeds to be able to avoid the associated financial implications. Therefore the Council remains committed to the delivery of this project.
- 3.12.2. The Council has undertaken a lengthy, transparent and robust procurement exercise for which it was neutral on technology. The market responded offering various technical solutions and the one to have best met the requirements of the evaluation criteria is that proposed by Veolia. The Council remains confident that the solution proposed by Veolia is an excellent solution for residual waste treatment in Leeds, both from an environmental perspective and from a financial perspective with savings of around £200 million over the life of the contract when compared to the estimated costs of landfill.

4. Corporate Considerations

4.1. Consultation and Engagement

- 4.1.1. Community and stakeholder engagement has been an integral part of the City Council's Residual Waste Treatment Project. The communications programme has been targeted primarily at local Ward Members, local MPs, local businesses and residents within one mile of the proposed RWT sites (approximately 12000). However, there have also been opportunities

for residents city wide to become involved. The programme has been delivered through various means at different times, and included press releases, briefing sessions, drop-in sessions, distribution of information leaflets, regular attendance at community meetings and the City Council's website. The programme has been an iterative process, where new information has been provided to address issues raised previously.

- 4.1.2. Following the notification of the Preferred Bidder and prior to Veolia initiating their own pre-planning consultations, the City Council's waste and recycling education team and Veolia are setting up a Communications Working Group to discuss and resolve items such as knowledge sharing, exhibition venues, protocols for finalising consultation materials and the role of City Council officers.
- 4.1.3. Veolia will undertake their own consultation activities to ensure that Local Ward Members, the general public and other relevant stakeholders are able to be involved in the planning process, and are able to examine and influence the detailed proposals. Information will be provided to local communities on the detailed proposals by mail shots, a dedicated web page, public exhibitions and/or question and answer sessions at locations convenient for the communities and businesses closest to the proposed Facility. Veolia's consultation activities will happen between November and the end of February, with the planning application submitted in Spring 2012.
- 4.1.4. In addition, Veolia will set up a Community Liaison Panel comprising representatives from a broad spectrum of community interests. Its members may be drawn from the database of over 200 residents who have previously expressed an interest in the project. The members of the Panel will provide independent points of contact for community members to discuss issues and pass on their comments to Veolia. The Panel will meet at regular intervals throughout the lifetime of the project, including during the construction and operational phases.

4.2. Equality and Diversity / Cohesion and Integration

- 4.2.1. An Equality Impact Assessment has been carried out on the Project and the successful tender meets the requirements identified in the assessment process.

4.3. Council Policies and City Priorities

- 4.3.1. Integrated Waste Strategy for Leeds 2005-2035.
- 4.3.2. Leeds City Council Climate Change Strategy

4.4. Resources and Value for Money

4.4.1. There are no financial or resource issues arising directly from this report, and these are covered within the separate Preferred Bidder report on the Residual Waste Treatment PFI project.

4.5. Legal Implications, Access to Information and Call In

4.5.1. There are no legal implications directly related to this report. Legal implications are being addressed through the Residual Waste Treatment project itself.

4.6. Risk Management

4.6.1. There are no risk management implications arising from this report other than those being addressed through the Residual Waste Treatment project itself.

5. Conclusions

5.1.1. The issues raised by the Leeds Friends of the Earth deputation are detailed in Appendix A to this report. Whilst recognising the concerns of Leeds Friends of the Earth, these responses seek to address these issues and to reconfirm the soundness and environmental benefits of the Residual Waste Treatment PFI proposals and the extent to which it complements other aspects of the Council's Integrated Waste Strategy.

6. Recommendations

Members of the Executive Board are recommended to:

6.1.1. Note the contents of this report, including its appendices.

7. Background documents

7.1.1. Deputation to Council by Friends of the Earth, 14th September 2011 (Appendix A).