

**WILTSHIRE COUNCIL  
CABINET**

**23 MARCH 2010**

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**Subject: MUNICIPAL WASTE DISPOSAL (LANDFILL DIVERSION CONTRACT) – PART I**

**Cabinet member Councillor Toby Sturgis - Waste, Property and Environment**

**Executive Summary**

Since autumn 2004 Wiltshire Council has been working to secure arrangements for the diversion from landfill of 100,000 tonnes of municipal solid waste each year. A significant step towards achievement of this was taken in March 2007 with the signing of the contract with Hills Minerals and Waste Limited (now Hills Waste Solutions Limited) for the delivery of 50,000 tonnes of waste each year to the Lakeside Energy from Waste plant at Colnbrook. Construction of this plant was certified complete in January 2010 and regular deliveries of the Council's waste to the plant have now commenced.

During this period negotiations have continued with Hills on the proposed contract for the construction of a mechanical biological treatment plant at Westbury to produce at least 20,000 tonnes of solid recovered fuel from 60,000 tonnes of the Council's waste each year. Hills have purchased a site and obtained planning permission and an environmental permit for the plant.

This report seeks approval for the award of this contract, subject to important caveats, for an operational period of 25 years. This contract would make a considerable contribution to the achievement of the Council's key outcome of, by 2014, reducing the amount of waste sent to landfill to 25% of its municipal solid waste.

**Proposal**

That the Cabinet:

- (i) Authorises the Service Director Waste Management to conclude negotiation of the proposed contract with Hills Waste Solutions Limited on terms to be approved by the Leader of the Cabinet in consultation with the Cabinet Member for Waste, Property and Environment and the Cabinet Member for Finance, Performance and Risk after receiving advice from the Solicitor to the Council, the Chief Finance Officer and the Director of Neighbourhood and Planning; and
- (ii) Authorises the Chief Executive to complete the certification requirements of the Local Government (Contracts) Act 1997 in respect of the proposed contract (including the direct agreement with the funders) subject to its award in accordance with its proposal set out in paragraph (i) above.

**Reason for Proposal**

The Council could incur substantial additional costs if the targets for diversion of waste from landfill are not achieved. Proposing the signing of the contract with Hills for the delivery of 60,000 tonnes each year of MSW to the proposed MBT plant at Westbury and the subsequent delivery of at least 20,000 tonnes each year of SRF to an energy recovery plant reduces this risk.

**Mark Boden**  
**Economic Development, Planning and Housing**

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CONTRACT) – PART I**

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**Purpose of Report**

1. To:
  - (i) Update Cabinet on progress with negotiations with the preferred tenderer;
  - (ii) Recommend award of a contract to the preferred tenderer subject to completion of any outstanding detail of the contract documentation to the satisfaction of the Council;
  - (iii) Recommend authorisation of the Chief Executive to complete the certification requirements of the Local Government (Contracts) Act 1997 in respect of the above contract.

**Background**

2. At its meeting on 19 November 2004 Wiltshire County Council Cabinet resolved to seek tenders for the diversion from landfill of 100,000 tonnes of residual Municipal Solid Waste (MSW) and approved the evaluation model for the tender process.
3. Following a competitive tendering exercise, in July 2005, Wiltshire County Council Cabinet appointed the contractors who submitted Tender B (Hills/Entsorga) and Tender C (Hills/Lakeside) as preferred bidders, authorising officers to continue to negotiate with those tenderers.
4. At its meeting on 12 July 2005, Wiltshire County Council considered a presentation and report and resolved:

*To confirm that, subject to the whole life cost of the contract not exceeding the projected cost of landfilling the same amount of waste to be treated under the contract over the duration of the proposed contract period, as set out in Appendix 1 to the report, the financial implications arising from the award of this contract would be consistent with Budget and Policy Framework of the Council.*

5. At the reconvened meeting held on 23 November 2005 Wiltshire County Council Cabinet resolved:

- (i) To confirm that, subject to final confirmation of price and completion of contracts to the satisfaction of the County Council, it is minded to award two contracts based upon the Hills/Lakeside tender (50,000 tonnes annually) and Hills/Entsorga tender (60,000 tonnes annually) for a 25 year term;*
  - (ii) To authorise the Leader of the County Council and Cabinet Member for Planning and Waste to approve the signing of contracts, after advice from the County Solicitor, County Treasurer and Director of Environmental Services, subject to no significant change in costs and risks to the County Council.*
6. Negotiations continued with the tenderers who in turn progressed negotiations with their proposed sub-contractors, suppliers and funders. The contract with Hills for the delivery of 50,000 tonnes of waste annually to the Lakeside Energy from Waste plant at Colnbrook was signed on 29 March 2007. Construction and testing of this plant was certified complete by an Independent Certifier on 14 January 2010 and regular deliveries to the plant of the Council's MSW have now commenced.
7. In the intervening period negotiations have continued with Hills on the proposed contract for the construction of a mechanical biological treatment plant (MBT plant) at Westbury to produce a solid recovered fuel (SRF) from the Council's MSW. Planning permission for the plant was granted by Wiltshire County Council's Regulatory Committee at a meeting held on 18 March 2009.

### **Main Considerations for the Council**

8. The proposed contract provides for 60,000 tonnes annually of residual MSW to be delivered, predominantly from west and north Wiltshire, to the new MBT plant to be constructed on the Northacre Industrial Park, Westbury. The plant will be built by Interserve Project Services Ltd and the process plant provider will be Entsorga Italia SRL (Entsorga). The SRF produced by the MBT plant will be delivered to an energy from waste plant in Germany or the Netherlands in accordance with a sub-contract with a contract period of 5 years, with a right to extend for another 5 years by mutual agreement. The MBT plant will be operated and maintained by Hills who will also provide landfill capacity for any outputs from the MBT plant which cannot be recycled or used as a fuel.
9. Waste which is delivered to the MBT plant will be tipped into a reception pit before being transferred by crane into a fast rotary drum. Any oversize materials such as plastic and card will be separated out and may either be added back into the process at SRF production stage or be sent for recycling. The remaining waste passes into a stock pit before being distributed by crane into windrows in a large biotreatment hall.
10. The waste will be retained in the hall for between 10 and 14 days. Air will be drawn down through the waste and blown upwards in a controlled manner. The temperature of the air and the rate of air flow will be managed to maximise drying of the waste. In conjunction with this the waste will undergo some biodegradation.

11. The treated material will then be shredded and refined using a combination of rotary screens, air separation and magnetic and eddy current separation equipment to produce three streams of:
  - (i) Ferrous metals for recycling;
  - (ii) SRF and fines (containing undersize organic material); and
  - (iii) Inert material such as glass and stones.
12. The fundamental performance objective for this contract is the achievement of the annual SRF target of at least 20,000 tonnes. The Council's technical advisors, SKM Enviro, have used the Environment Agency's Waste and Resources Assessment Tool for the Environment (WRATE) to carry out an assessment of the ability of the proposed MBT plant to produce the required quantity of SRF with a composition that meets the SRF specification set out in the proposed sub-contract.
13. The composition of the MSW that SKM Enviro used for this assessment comprises average values of the quantity of different materials within the waste (such as paper and card) calculated from a number of waste composition surveys carried out between 2005 and 2009 on waste arising in west Wiltshire. The Council has proposed these composition requirements for inclusion in the contract definitions and is awaiting Hills' response. The Council has notified Hills of the results of the composition surveys that have been carried out between 2005 and 2009 so the plant should be designed to process MSW with these characteristics.
14. The WRATE model projects that the proposed MBT plant is capable of producing in excess of 30,000 tonnes of SRF each year based on 60,000 tonnes of MSW which meet the composition requirements proposed for the contract being delivered to the plant. The annual SRF target is 20,000 tonnes and Hills are obliged to deliver any quantity of SRF produced to the energy from waste plant. There is no maximum quantity of SRF stated in the sub-contract so it is feasible that the target would be exceeded by up to 10,000 tonnes of SRF each year.
15. The proposed sub-contract contains a specification for the SRF. Provided the Council delivers MSW which meets the composition requirements set out in the proposed Principal Agreement with Hills, it is Hills' responsibility to manufacture SRF in accordance with the SRF specification. SKM Enviro concluded that the proposed SRF should meet the majority of parameters in the specification. There may be peaks in individual loads of MSW that exceed the limits of the specification but these should be effectively dispersed as the MSW is processed through the MBT plant.
16. Through the Transfrontier Shipment of Waste Regulations Hills will have to apply annually to the Environment Agency for permission to export the SRF in advance of shipments commencing. The Environment Agency in turn seeks permission from its equivalent approving body in the country to which the SRF is being exported. There is a risk that there could be a delay in permission

being granted. Hills have been asked to demonstrate that they have a robust process in place for acquiring the necessary permits. This process is currently undertaken on behalf of Hills to enable the export of the Council's wood waste to an energy recovery plant in Germany.

17. The specification for SRF does not set limits in respect of moisture content, ash content or particle size which are of particular concern to the cement manufacturing industry, a possible alternative market for the SRF. However the projected SRF modelled by WRATE does indicate that the SRF would meet the required moisture and ash content for a cement kiln specification. It may be necessary to replace or adjust the proposed shredder to produce a smaller particle size SRF in order to meet the cement kiln specification, should this alternative market be pursued.
18. A cement kiln specification would have a higher calorific value limit for the SRF than that in the currently proposed specification, which is relatively wide. As a consequence it is likely that a lower quantity of SRF would be produced for the cement manufacturing market. However the annual SRF target would remain at 20,000 tonnes.
19. The proposed MBT plant is capable of operating in two modes, biodrying and biostabilisation. The Westbury plant would be operated in biodrying mode for the purposes of producing SRF. The air supply conditions would maximise the drying of the waste, but consequently the extent of biodegradation is significantly less than when the plant would operate in biostabilisation mode. If there was no market for the SRF the plant could be adjusted to reduce the biodegradability of the output from the process. This is important because the Council's performance against its Landfill Allowance Trading Scheme (LATS) targets relate to the quantity of biodegradable MSW sent to landfill.
20. For the purposes of calculating the equivalent tonnes of biodegradable MSW the Environment Agency applies a default adjustment factor of 1.3 to the amount of output from an MBT plant that is sent to landfill. In order to demonstrate that performance is better than this default position Hills would need to carry out testing as agreed with the Environment Agency of the biodegradability of the outputs from the plant. Until the plant has been constructed and the outputs can be tested in this way it is not possible to be certain about what the appropriate adjustment factor should be. Data from a variety of composting and MBT technologies indicates that for a typical biodrying MBT plant some diversion of biodegradable municipal waste is achieved.

### **Environmental Impact of the Proposal**

21. Mechanical biological treatment with energy recovery was identified as a best practicable environmental option in the adopted Regional Waste Strategy and as one of the appropriate secondary recovery methods in the Wiltshire Joint Municipal Waste Management Strategy. It is not possible to quantify the environmental impact of the proposal to export the SRF to Germany. Clearly the miles that the SRF would travel increase considerably from the original proposal to deliver the SRF to the Lafarge cement works in Westbury.

However the proposal does enable the Council to divert waste from landfill and therefore reduces the production of methane, a potent greenhouse gas, which is 23 times as damaging a greenhouse gas as carbon dioxide.

22. The plant will generate electricity and heat which would also compensate for the miles travelled. The Council's objective would be to move to a more sustainable solution so the proposed sub-contract for export of SRF is for a period of 5 years. This would give the Council time to work with Hills prior to the expiry of the proposed sub-contract to provide an alternative outlet for the fuel which would reduce the distance over which the SRF would be transported. Consistent production of SRF from plants in the UK should encourage the development of plants using SRF to generate energy within the UK.

### **Equalities Impact of the Proposal**

23. No specific recommendations or implications in respect of equalities have been identified as arising from this report.

### **Risk Assessment**

24. The financial modelling which has been carried out suggests that the do nothing option is likely to be the most expensive course of action. The do nothing option takes account of the diversion that is being achieved through recycling and delivery of waste to the Lakeside EfW plant. However, failure to award the contract and deliver the MBT plant could result in additional costs being incurred by the Council because it is not possible to predict with any degree of certainty the long term costs of landfilling waste.
25. Landfill Tax is now subject to an £8 per year escalator until it reaches £72 per tonne in 2013-14. Beyond that date the Council faces the risk of further escalation if central government decides to bring the tax up to the level applied in some EU countries. The government is also continuing discussions about banning more materials from landfill.
26. Projections of waste growth and assumptions about LATS fines, Landfill Tax costs and inflation are based on current information. The situation beyond 2013-14, although unclear, may be more stringent and is likely to result in an upward rather than a downward trend in the costs of landfilling waste. The Council could also face more pressure for development of new landfill sites in Wiltshire if the amount of waste being landfilled is not further reduced.
27. Further information on risk assessment is included in the report on Part II of the agenda.

### **Financial Implications**

28. Information on the financial implications of awarding this contract is included in the report on Part II of the agenda.

## **Legal Implications**

29. Information on the legal implications of awarding this contract is included in the report on Part II of the agenda.

## **Options Considered**

30. The options open to the Council at this stage are:
- (i) To cease negotiations;
  - (ii) To conclude negotiations and, subject to satisfactory completion of the outstanding details of the contract documents, approve the signing of contracts.

## **Conclusion**

31. The Council could incur substantial additional costs if the targets for diversion of waste from landfill are not achieved. Proposing the signing of the contract with Hills for the delivery of 60,000 tonnes each year of MSW to the proposed MBT plant at Westbury and the subsequent delivery of at least 20,000 tonnes each year of SRF to an energy recovery plant reduces this risk.

## **Proposal**

32. That the Cabinet:
- (i) Authorises the Service Director Waste Management to conclude negotiation of the proposed contract with Hills Waste Solutions Limited on terms to be approved by the Leader of the Cabinet in consultation with the Cabinet Member for Waste, Property and Environment and the Cabinet Member for Finance, Performance and Risk after receiving advice from the Solicitor to the Council, the Chief Finance Officer and the Director of Neighbourhood and Planning; and
  - (ii) Authorises the Chief Executive to complete the certification requirements of the Local Government (Contracts) Act 1997 in respect of the proposed contract (including the direct agreement with the funders) subject to its award in accordance with its proposal set out in paragraph (ii) above.

## **Mark Boden Economic Development, Planning and Housing**

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## **The following unpublished documents have been relied on in the preparation of this Report:**

None