

NORTH LONDON WASTE AUTHORITY

REPORT TITLE

LONDONWASTE LTD – WASTE INCINERATION DIRECTIVE

REPORT OF

FINANCIAL ADVISER

FOR SUBMISSION TO

DATE

AUTHORITY MEETING

28 APRIL 2004

1. SUMMARY OF REPORT

This report provides details of the progress being made by LondonWaste Ltd to meet the requirements of the Waste Incineration Directive. On the basis of current information the refurbishment project is expected to complete on time albeit at a higher cost.

2. RECOMMENDATIONS

The Authority is requested to:-

- (i) Note the contents of this report.

Signed by the Financial Adviser:

Date:

3. **BACKGROUND**

- 3.1 During the period September 2002 to July 2003 Members received a number of reports (some being exempt from publication) outlining and reviewing the refurbishment and new boiler options under consideration by LondonWaste Ltd (LWL) to comply with the EU Waste Incineration Directive (WID) at the Edmonton energy-from-waste facility. Failure to further improve the emissions from the facility – LWL had already undertaken works to meet the requirements of the Emissions Control Regulations in 1996 – would mean that LWL could no longer use the current boilers after 28 December 2005.
- 3.2 On 9 July 2003, the Authority (in its capacity as a shareholder of LWL) agreed to give its consent to the Company to proceed with the refurbishment project and to incur such costs as are necessary to deliver the project.
- 3.3 The refurbishment option aims to ensure delivery of the NLWA/LWL main waste disposal contract until it expires in December 2014, and thereby reduces the uncertainty of future waste disposal costs over this time to the Authority and its constituent councils.
- 3.4 The Authority is not required to make any contribution towards the costs of the refurbishment other than by foregoing any dividend payments that may become payable by the Company to the Authority before 2014 (as provided for in the Joint Venture Agreement with Sita UK).
- 3.5 LWL is currently in discussions with a number of banks to secure new borrowing facilities and is the subject of a separate report on this agenda. This report, however, focuses on the progress made to date by LWL to implement the modifications to the Edmonton energy-from-waste facility.

4. **SCOPE OF WORKS**

- 4.1 The project provides for the refurbishment of the 5 existing boilers to ensure that all WID emission limits are met, but by means other than the 2-second residence time in the combustion chamber. The Environment Agency (EA) has confirmed that it will grant an exemption in respect of the 2-second residence time provided the refurbishment meets all other requirements of the Directive, including all emission limits.
- 4.2 The modification works will include:
- (i) Improvements to the combustion process in order to reduce the carbon in ash content and to reduce the carbon monoxide emissions to a new lower level.
 - (ii) Installation of denox equipment in order to reduce the NO_x emissions to a new lower level.

(iii) Installation of 3 gas burners in each of the 5 boilers for start-up, shutdown and occasional heat maintenance duty as required by the Directive.

4.3 In a recent progress report to the Authority LWL has indicated that the success of the project must be judged against three criteria:

- (i) The modified facility must be technically capable of meeting the WID Directive requirements.
- (ii) The cost must be the minimum cost capable of delivering the said technical capability.
- (iii) The project must be completed by 28 December 2005.

Of equal importance to the Authority is the ability of the facility to continue to process waste at pre-WID levels.

5. **PROGRESS TO DATE**

5.1 LWL advises that the project is now well underway. LWL tendered and selected a contractor to carry out the combustion improvements and, following an intensive period of technical evaluation and engineering design work, modification work commenced on one of the Company's five boilers on 29th March 2004. During this phase of the work, which is scheduled to take 4 months to complete, the following works will be carried out:

- Install new feed chutes with blockage detection devices
- Replace 5 grate rollers with new and refurbished rollers
- Refurbish 2 grate rollers in-situ
- Replace combustion and secondary air systems
- Modify combustion chamber shape to improve combustion conditions
- Replace undergrate ash removal systems
- Renew and update combustion controls using the latest micro-processor Techniques
- Install denox and gas burner systems

5.2 Although the physical works have only just begun, LWL advise that the initial phases have gone well and that there is no reason to doubt that the modifications will deliver the technical capability that is being sought in order to meet the WID Directive.

5.3 With regard to the separate engineering phase of installing denox equipment, LWL has carried out a tender process and has now selected a preferred contractor. The Company is now finalising the contractual and technical arrangements with the preferred contractor for this work and expects that the installation of the equipment will commence later this year.

5.4 The LWL Technical Report that was prepared in June 2003, and which recommended the refurbishment option, stated that although performance guarantees were unlikely to be available the envisaged modifications would meet the WID requirements. Contrary to this view LWL has been able to secure from its contractor, time-limited Performance Guarantees of up to 10% of the value of each line and full Mechanical Guarantees. However, in view of recent changes to the management of the project (see para 6.3 below) the Performance Guarantees will apply to the first line only whereas the Mechanical Guarantees apply to the entire project.

6. COSTS OF THE PROJECT

6.1 Prior to the detailed design and engineering work, the Technical Report gave indicative costs of the options available to LWL. During the detailed engineering design work, the scope of works were defined and costed. Because of the absolute requirement to achieve technical capability to meet the WID Directive standard, the LWL engineering team has had to assess which of the technical options will provide the optimum improvements to the existing boilers. Having established the scope for the first boiler, the engineering team's costings indicate that the cost of the combustion works for this boiler is higher than was originally envisaged. Until the modifications that are being carried out on the first boiler are trialled in July and August, LWL advise that it will not know whether the optimum mix of engineering options has been achieved and whether it will become necessary to add to, or reduce, the scope of works in the subsequent modifications to other boilers.

6.2 LWL has also advised that as the project is for modification work and not new-build, it was not possible to secure a fixed price contract against a defined scope of work. The contractor selected by LWL, is one of the few companies with the expertise to carry out the necessary modifications to the grates and combustion chambers. As a consequence LWL has advised that the process of establishing the necessary engineering scope of works and the proper cost for such works has been more difficult than expected. There has been a necessary tension between the Company's need to seek the minimum level of engineering work in order to minimise costs and the need to make sufficient improvement to the combustion process in order to be confident that the WID requirements can be met. As a result LWL advise that there has been a high level of focus, scrutiny and debate over the proposed scope of works and their contractor's charges for carrying out such works.

6.3 LWL has advised that if the scope of works to the first boiler were repeated in subsequent boilers the overall cost of the project would be higher than was originally anticipated. Although the LondonWaste Board has approved the commencement of the works on the first boiler it has also asked the engineering team to carry out an in-depth review of the technical options available to establish whether any savings can be achieved in the remaining works without prejudicing

the essential success of the whole project. As a consequence LWL has agreed with its main contractor that LondonWaste would carry out more of the project management work, particularly in respect of procurement. This revision to the project set-up and a review of the scope of works is expected to limit the increase in costs. Further potential areas of cost saving are under review by LWL and its engineering team but it is unlikely that a clearer picture will emerge before the first boiler has been modified and an assessment made of its capability.

- 6.4 The LWL Technical Report also indicated that it was unlikely that the WID works would be fully complete by 28 December 2005. Although LWL would be able to operate boilers modified to the new standard the unavailability of the facility's full capacity would add to the Company's operational costs because of the increase in waste that will have to be diverted to landfill and a reduction in electricity income. As a consequence LWL has advised that the engineering team in conjunction with the main contractor have identified ways of reducing the overall length of the project. LWL is of the view that this should enable all of the modification works to be completed by the end of 2005 and result in a significant reduction in the transitional costs of implementing the project. Whilst this has the potential to benefit the Authority through a reduction in landfill tax payments the Authority will wish to ensure that it is not disadvantaged by an increase in the direct project costs of the refurbishment.

7. FINANCIAL IMPACT ON THE AUTHORITY

- 7.1 Members will be aware that the WID project is to be paid for by LWL and funded from bank borrowings. The Authority is not required to make any direct contribution towards the capital costs of the project except by way of deduction from any dividend that might be paid by the Company to the Authority in the future. The Company has agreed that it will provide details of the engineering works and their costs to NLWA officers in order that the Authority can satisfy itself that all costs are being incurred to meet WID requirements.
- 7.2 Since the Authority is separately required to reimburse the Company for certain landfill tax costs incurred on Authority wastes, the Authority may benefit by any time saving that can be achieved on the project if it reduces the relevant waste that is sent to landfill. Notwithstanding the potential benefit of the latter the Authority will also wish to ensure that any such benefit is not outweighed by an increase in the direct project costs of the refurbishment. This matter will be examined as part of the review referred to in paragraph 7.1. AEA Technology who is retained by the Authority to advise on ad hoc technical issues will assist the Authority in this review.
- 7.3 In addition to ensuring that the Authority only makes a contribution towards the WID project in accordance with the Joint Venture Agreement, and continues to receive an effective service until the end of the current contract in December 2014, the Authority - as a shareholder - also has an interest in the effect of LWL's

expenditure on the inherent value of the Company. To this extent, the Authority has the same general interest in the project as LWL, in that it wants to see the WID project deliver the required technical capability for the minimum cost with the required timescale. This includes maintenance of the current throughput capacity of the facility.

8. CONCLUSION

- 8.1 On the basis of current information the WID project appears to be proceeding well albeit at a higher than anticipated cost. Although LWL has taken action to contain the increase in costs, the Company remains confident that the key requirement to make the Edmonton energy-from-waste facility WID compliant by 28 December 2005 is achievable.

9. COMMENTS OF THE LEGAL ADVISER

- 9.1 The Legal Adviser's comments are incorporated in the report.

Local Government Act 1972 - Section 100 as amended

No documents that are required to be listed have been used in the preparation of this report: -

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