

ABERDEEN CITY COUNCIL

COMMITTEE	Zero Waste Sub-Committee
DATE	1 December 2015
DIRECTOR	Pete Leonard
TITLE OF REPORT	Review of Energy from Waste Business Case
REPORT NUMBER	ZWSC/7602
CHECKLIST COMPLETED	Yes

1. PURPOSE OF REPORT

The purpose of this report is to update members on the progress of the Zero Waste Project.

2. RECOMMENDATIONS

- Agree the outcome of the review of the EfW business case (that joint EfW plant is best way forward)

3. FINANCIAL IMPLICATIONS

The Zero Waste Project will contribute to a reduction in cost pressures associated with the increasing costs of landfilling the city's waste whilst at the same time substantially improving recycling services and meeting national regulations and targets.

4. OTHER IMPLICATIONS

Legal. Specialist legal support is being provided to ensure the implementation of the Zero Waste Project is undertaken in accordance with best practice and minimizes risk to the Council.

Resource. Management of the development of a Joint EfW solution will be undertaken by internal staff as part of their substantive duties, specialist support will be provided (from within allocated budgets) for legal, financial and technical matters.

Personnel. As above.

Sustainability and environmental. The Zero Waste Project will deliver substantial advances in sustainability and environmental performance.

5. BACKGROUND/MAIN ISSUES

5.1 Review of Energy from Waste Business Case

A report entitled Energy from Waste Business Case (ZWM/13/006) was considered by the Zero Waste Management Sub-committee on 4 December 2013. The Business Case concluded that the Best Value Option for the management of residual waste collected in the city was to seek to find partners to develop an Energy from Waste (EfW) facility in Aberdeen.

Recommendation 3, adopted by the Sub-committee stated:

‘That the sub-committee instructs officers to seek partners for the future development of an Energy from Waste facility in order to obtain better value for money for the Council.’

Recommendation 5, adopted by the Sub-committee stated:

‘That the Sub-committee instructs officers to report back in March 2015 with a review of the Business Case.’

This report addresses those recommendations.

5.2 Progress on Joint Working and Definition of Facility Capacity

Since December 2013, extensive discussions have been held with potential partners and Zero Waste Project Updates have informed members of progress. In early 2015, it was agreed that the Council should seek to develop a joint solution with Aberdeenshire Council and the Moray Council. The three authorities also concluded that the best value funding model for the project would be that the three authorities would directly finance the project.

5.3 Review of Energy from Waste Business Case

Upon confirmation of the partners for the joint project, an outline capacity for the EfW facility has been set at 150,000 tonnes per annum.

The Original Business Case Considered the following options:

Option One (Small EfW, Council financed):

To develop a facility on a site identified within the Council’s boundary with the purpose of treating Aberdeen’s residual waste arisings. The capital investment to provide this facility would be funded directly by the Council, and a partner waste contractor engaged to manage the facility’s operational activities on the Council’s behalf. It offers the potential benefit of renewable energy generation within the City.

Option Two (Small EfW, PPP financed):

As above but with finance provided by the contractor. The decision to self-finance the project means that this option has not been remodelled.

Option Three (Large EfW, Council financed):

As option 1, with a larger EfW facility that is sized to take other residual waste. This other waste is assumed to be Aberdeenshire Council (70 ktpa) and Moray Council (20 ktpa), but could also include some commercial and industrial wastes. The capital investment to provide this facility would be funded directly by the Council and a partner waste contractor engaged to manage operations;

Option Four (Large EfW, PPP financed):

As above but with finance provided by the contractor. The decision to self-finance the project means that this option has not been remodelled.

Option Five (Refuse Derived Fuel offtake):

The Council has been progressing an interim treatment solution comprising the preparation of waste as Refuse Derived Fuel (RDF) prior to export to European EfW facilities. The business case considers this waste treatment option also as a long term solution, assessing whether the cost of this waste management practice would provide better value for money.

The Council appointed AMEC Foster Wheeler and Enrst and Young to undertake the review of the Business Case (included as Appendix 1).

5.4 Outcome of the Review

The following table summarises the outcome of the review of the Business Case:

Table 1 Results of Business Case Review

Item	Option 1 - 60 ktpa EfW	Option 3 - 150 ktpa EfW	Option 5 - MT & RDF
	£000	£000	£000
Total Nominal Price	290,710	247,967	283,880
Total Net Present Value	98,818	84,793	84,411
	£	£	£
Gate fee per tonne (year 1 operations)	187	161	143

The financial measures outlined above provide different perspectives on the cost of the project with Net Present Value (NPV) considered the

best measures to assess the overall cost or benefit from a project over its full lifetime.

The key conclusion from the report is that the financial assessment of options reconfirms the previous conclusion that a larger EfW delivers the best value for money solution in the long term.

The review of the Business Case has focused primarily on financial aspects, the original review also considered other factors such as risk. There have been no significant changes in the risk profile of the options considered. In summary, main risks associated with each option are shown on the following table:

Table 2. Risk Management

	Risk	Significance	Mitigation
Option 1 (Small EfW)			
	Planning Permission	High, prior to development	Site in LDP, determine application before procurement, widespread stakeholder engagement, ensure delivery of district heating
	Operational Performance	High but manageable	Selection of reliable technology and high quality operator
Option 3 (Larger EfW)			
	Planning Permission	High, prior to development	Site in LDP, determine application before procurement, widespread stakeholder engagement, ensure delivery of district heating, emphasise lower cost and additional heat benefits
	Operational Performance	High but manageable	Selection of reliable technology and high quality operator
Option 5 (RDF Export)			
	Long term cost	High and continuing	Seek to secure long term price guarantees, however, not available at present for full duration of project
	Long term outlets	High, continuing and critical	Seek to secure long term capacity guarantees, however, not available at present for full duration of project

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Considering financial and risk issues together, it is evident that the EfW options face risks that can either be mitigated and come to fruition very early in the project, ensuring that the long-term security of residual waste management can be achieved. By contrast, RDF presents high risk throughout the project, increasingly so beyond 2020 when capacity for outlets is unknown and the viability of this solution being outwith the Council's power to manage.

A further consideration is the opportunity that EfW in Aberdeen presents; heat from the facility can be used for the benefits of Aberdonians and in particular for those in fuel poverty. RDF exports those benefits to communities elsewhere and delivers no positive outcomes for the city.

5.5 Conclusion

Little has fundamentally changed in the relative merits of the options considered in the Business Case. Larger EfW, developed in partnership with other public authorities offers the best financial, lower risk and highest benefit option for the city.

6. MANAGEMENT OF RISK

Risk 1	Category (hazard, control or opportunity)	Cause (What could trigger a risk event?)	Impact (What would be the consequences if a risk event occurred?)
TBC			
Controls (What do we already have in place which could reduce the likelihood and or consequences of a risk event?)	Risk Class (see guidance)	Further planned mitigating actions (What else could we implement in order to reduce the likelihood or consequences of a risk event?)	

7. BACKGROUND PAPERS

Appendix 1. 2015 Addendum to Energy from Waste Business Case

8. REPORT AUTHOR DETAILS

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