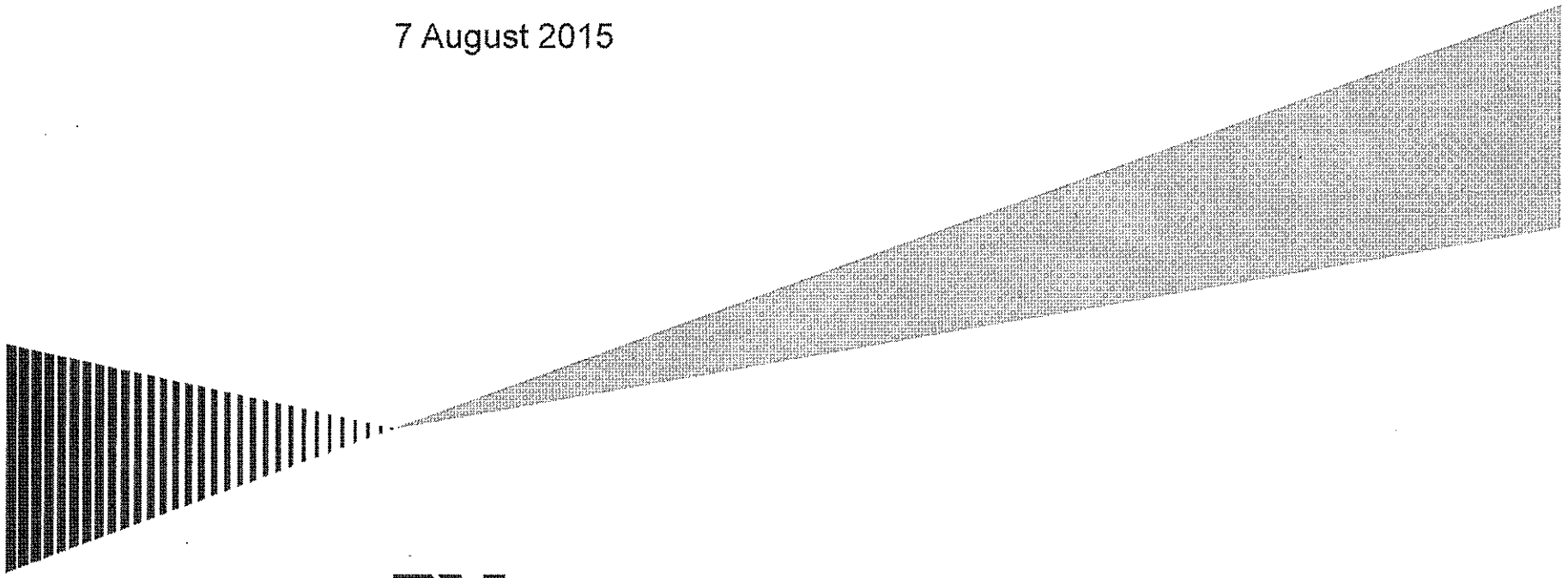
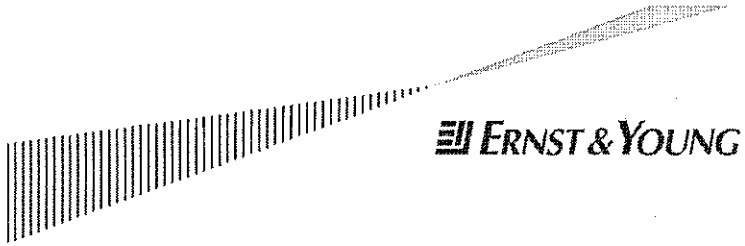
Aberdeen Waste Project VFM

Business Case update

7 August 2015



Building a better working world



Ernst & Young LLP
1 More London Place
London SE1 2AF

Tel: 020 7951 2000
Fax: 020 7951 1345
www.ey.com/uk

Aberdeen City Council
Attention: Craig Innes
Woodhill House
Westburn Road
Aberdeen
AB16 5GB

7 August 2015

Direct line: 0131 777 2130
[redacted]

Dear Craig

Waste Project VFM Model Update

In accordance with our engagement letter dated 17 July 2015, we ("Ernst & Young LLP" or "EY") enclose the results from the work performed on the VFM Model Update for the Waste Project ("the Project") for Aberdeen City Council ("the Council" or "ACC").

Purpose of our presentation and restrictions on its use

This report was prepared on your instructions solely to assist the Council in updating the VFM within the business case. Because others may seek to use it for different purposes, this report should not be quoted, referred to or shown to any other parties unless so required by court order or a regulatory authority, without our prior consent in writing. In carrying out our work and preparing our report, we have worked solely on the instructions of the Council.

Our report may not have considered issues relevant to any third parties. Any use such third parties may choose to make of our report is entirely at their own risk and we shall have no responsibility whatsoever in relation to any such use. This report should not be provided to any third parties without our prior approval and without them recognising in writing that we assume no responsibility or liability whatsoever to them in respect of the contents of our deliverables.

We only accept responsibility or liability to our client in respect of this report on the basis set out in the engagement letter. We accept no responsibility or liability to any other person in respect of this report, and accordingly if such other persons choose to rely upon any of its contents they do so at their own risk.

Scope of our work

Our work in connection with this assignment is of a different nature to that of an audit. Our report to you is based on our review of the information provided by you in relation to the Project and the Council. We have not sought to verify the accuracy of the data or the information and explanations provided by management.

Yours faithfully,

[redacted]

Neil Thomson
Executive Director

Introduction & Background

- EY has been engaged by Aberdeen City Council (ACC) to perform an update to the Energy from Waste Business Case to assess the following 3 options:
  - Option 1 - EfW sized for Aberdeen City Council only
  - Option 3 - A joint Authority EfW for Aberdeen City Council, Aberdeenshire Council and Moray Council
  - Option 5 - The continued use of RDF export for Aberdeen City Council through use of the Altens RDF Facility post SITA contact
- In addition, the following sensitivities were performed for each option noted:
  - Capex -10% and +30%
  - Opex -10% and +10%
  - RDF offtake +50%
- AMEC have provided the technical information to allow EY to model the outputs contained within this pack.

Results – Base Case

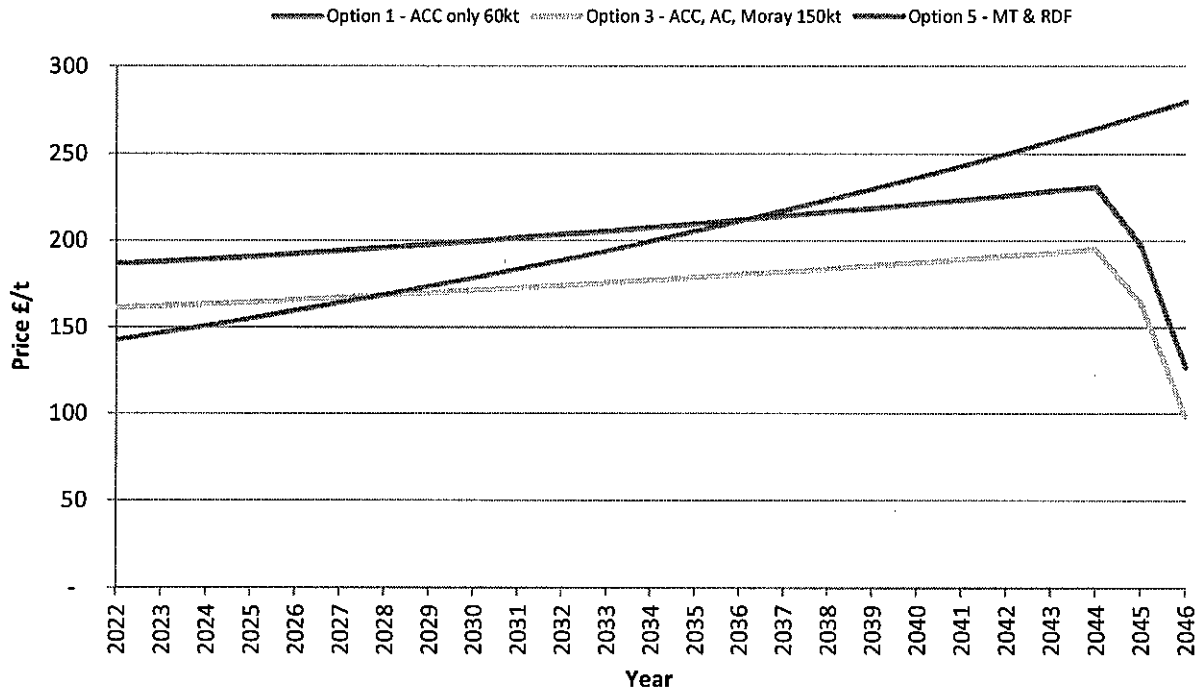
	Option 1 – 60kt EfW	Option 3 – 150kt EfW	Option 5 – MT & RDF
	£000	£000	£000
Total Nominal Price	290,710	247,967	283,880
Total NPV	**98,818**	**84,793**	**87,411**
	£	£	£
Gate fee/tonne Year 1 operations	187	161	143

- The results have been normalised for the Total Nominal Price and Total NPV using ACC tonnage to allow the comparability of each option.
- The results of the base case options show that Option 3 (150kt EfW) delivers the lowest NPV cost to the ACC and therefore shows best value for money.
- We note that Option 5 carries the most long term risk as the RDF gate fee will be set by the market over the life of the contract. Option 1 and 3 will allow a stable gate fee price over the length of the contract following the construction phase.

EY

Base Case – Gate fees

- The graph below shows the gate fee for the three base case options over the contract length.
- There is drop off in gate fee for Options 1 & 3 in the later years due to the pay back of debt.
- Option 5 increased at a steeper rate due to all the costs being subject to indexation, whereas Options 1 & 3 have funding elements which are not subject to indexation.



Sensitivities – Option 1 60kt EfW

	Option 1 – 60kt EfW		
Capex Sensitivity	**-10%**	**Base**	**+30%**
	£000	£000	£000
Capex Amount	53,036	58,929	76,608
Total Nominal Price	273,838	290,710	341,327
Total NPV	**92,746**	**98,818**	**117,032**
	£	£	£
Gate fee/tonne Year 1 operations	174	187	223

- These sensitivities show the impact on the Option 1 base case by adjusting Capex by -10% / +30% per the scope.

Sensitivities – Option 1 60kt EfW

	Option 1 – 60kt EfW		
Opex	**-10%**	**Base**	**+10%**
	£000	£000	£000
Opex Amount	52,746	58,606	64,467
Total Nominal Price	280,715	290,710	300,705
Total NPV	**95,707**	**98,818**	**101,928**
	£	£	£
Gate fee/tonne Year 1 operations	181	187	192

- These sensitivities show the impact on the Option 1 base case by adjusting Opex by -10% / +10% per the scope.

Sensitivities – Option 3 150kt EfW

	Option 3 – 150kt EfW		
Capex	**-10%**	**Base**	**+30%**
	£000	£000	£000
Capex Amount	127,856	142,062	184,681
Total Nominal Price	232,422	247,967	294,602
Total NPV	**79,202**	**84,793**	**101,566**
	£	£	£
Gate fee/tonne Year 1 operations	150	161	194

- These sensitivities show the impact on the Option 3 base case by adjusting Capex by -10% / +30% per the scope.

Sensitivities – Option 3 150kt EfW

	Option 3 – 150kt EfW		
Opex	**-10%**	**Base**	**+10%**
	£000	£000	£000
Opex Amount	96,005	106,672	117,339
Total Nominal Price	241,012	247,967	254,923
Total NPV	**82,629**	**84,793**	**86,957**
	£	£	£
Gate fee/tonne Year 1 operations	157	161	165

- These sensitivities show the impact on the Option 3 base case by adjusting Opex by -10% / +10% per the scope.

Sensitivities – Option 5 MT & RDF

	Option 5 – MT&RDF	
RDF Offtake	**Base**	**+50%**
	£000	£000
Offtake Price	£92	£138
Total Nominal Price	283,880	384,448
Total NPV	**87,411**	**118,243**
	£	£
Gate fee/tonne Year 1 operations	143	192

- These sensitivities show the impact on the Option 5 base case by adjusting the RDF offtake price by +50% per the scope.

Assumptions

Assumption	Value	Comments
Base date	2015	EY
Operational length	25 years	AMEC
No tax modelled	0	EY
Discount Factor	3.50% Real 6.087% Nominal	EY
Funding Cost: PWLB	5.00%	Verified by ACC.
Indexation: RPI Power Indexation Third Party Waste Capex RDF Landfill Gatefee Landfill Tax	 2.50% 2.50% 2.50% 4.5% 3.00% 2.50% 2.50%	Per last Business Case Note: RDF indexation rate increased from 2.50% to 3.00% due to the anticipated increase in price based on the current low Euro rate and the availability in the current market driving the gate fee down.
50kt - Capex Insurance	£800,000	Per last Business Case
100kt – Capex Insurance	£1,400,000	Per last Business Case
50kt – Operational Insurance	£400,000 p.a	Per last Business Case
100kt – Operational Insurance	£800,000 p.a	Per last Business Case
MT – Operational Insurance	£53,500 p.a	AMEC
Power Generation Value	£47/tonne	AMEC – note that a more prudent approach may be taken if bank funded solution.
Third Party Waste price	£65/ tonne	EY
Landfill Gate fee	£41.40	AMEC

Assumptions (continued)

Assumption	Value	Comments
Landfill tax	£82.60	AMEC
RDF Offtake Price	£92/tonne	AMEC
Risk Adjustments: Capex Risk Opex Risk Power revenue risk TPW Risk	 25.00% 5.00% -20.00% -20.00%	Per last Business Case (verified by ACC)

EY | Assurance | Tax | Transactions | Advisory

Ernst & Young LLP

Ernst & Young LLP, 1 More London Place, London, SE1 2AF.

ey.com