



**APSE  
Aviemore**

**Zero Waste: Edinburgh and  
Midlothian**

**19 May 2016**

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Project Director**

# Zero Waste: Edinburgh and Midlothian

- Joint project:
  - The City of Edinburgh Council
  - Midlothian Council
- Set up to
  - Acquire a project site
  - Procure waste treatment solutions

# Partnership Working

- Strategic approach
- Competition and value for money
- Economies of scale in bidding
- Economies of scale in service provision
- Economies of scale in contract management

# Project Drivers

- Disposal to Landfill Unsustainable
- Increasing Landfill Costs and Tax
- EU Landfill Directive
- Climate Change and Carbon Agenda

# Project Drivers

## Zero Waste Policy- 2008

50% recycling/composting 2013

60% by 2020

70% by 2025

Max 5% to landfill 2025



Separate food collections by 2013

Food waste landfill ban 2015

Biodegradable landfill ban 2020

**No Do Nothing option**

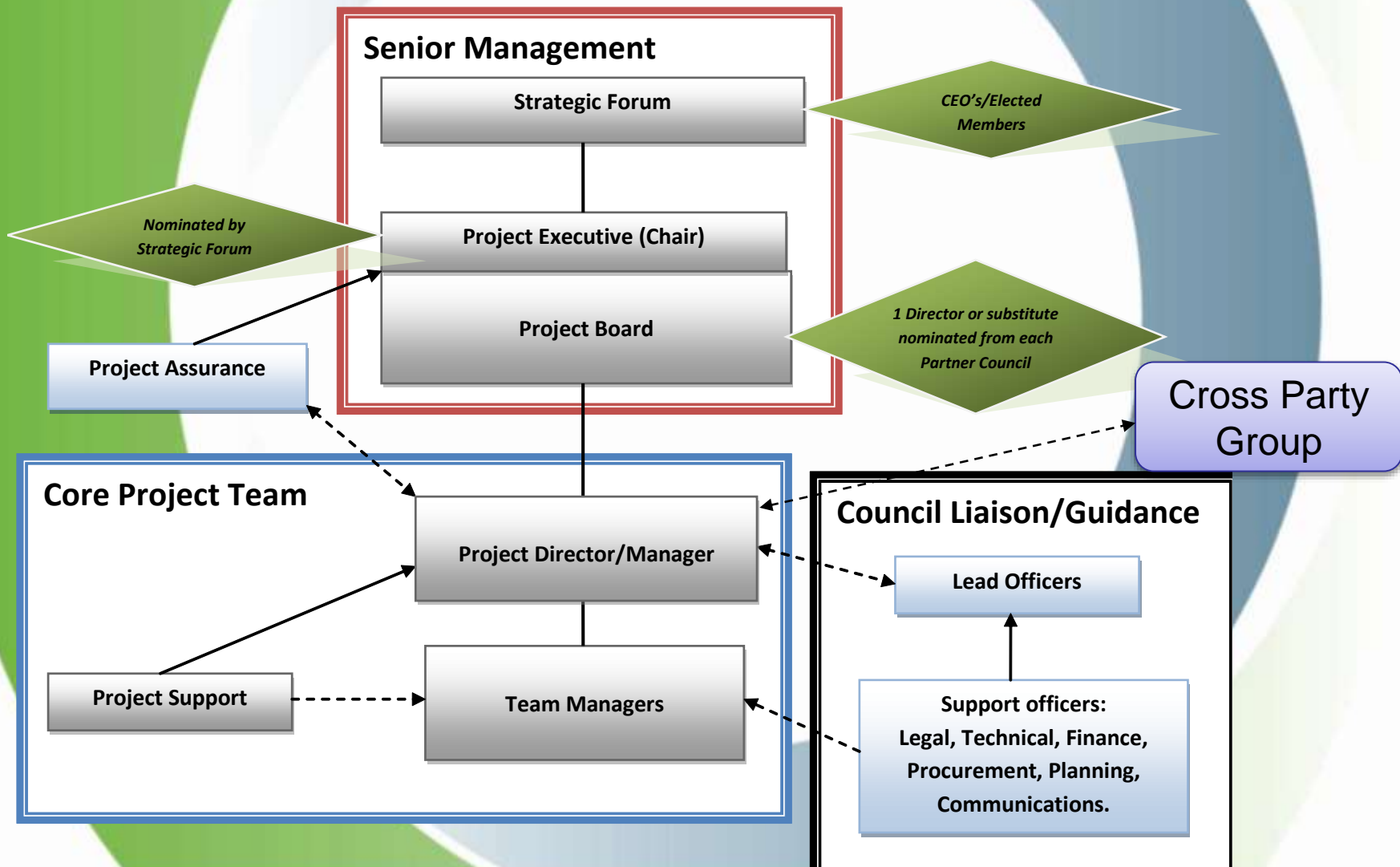
# Project Activity

- Acquisition of a project site
- Acquisition of additional land for access
- Securing wayleaves and licences
- Procuring a new bridge and access road
- Procuring ground investigations
- Procuring site utilities (Potable water, electricity, foul drainage, surface water drainage)
- Procuring various advisers/consultants
- Intensive community engagement
- Securing Planning Permission in Principle
- Securing Network Rail consents
- Procurement of food waste treatment facilities
- Procurement of residual waste treatment facilities

# Project Governance

Midlothian Council

City of Edinburgh Council



# Delegated Authority

- Councils
  - OJEU and Preferred Bidder
- Board and Project Director
  - All other decisions
- Strategic Forum and Cross Party Group
  - Briefings and dispute resolution



# Contract Monitoring

City of Edinburgh appointed  
Lead Authority  
Inter Authority Agreement and  
Payment Mechanism.

# The Millerhill Site



- Strategic Site (22ha)
- Fits with proximity principle
- Close to A1 and City Bypass
- Rail Linked



Edinburgh

East Lothian

PPP Site

Midlothian

- Road Bridge
- Borders Rail & Station
- New Road
- Proposed/Upgraded/Realigned Road
- Shawfair Town Centre
- Council Boundaries
- Employment Land Allocation
- Housing Land Allocation
- Safeguarded for Housing
- Mixed Use Allocation
- Energy from Waste Proposal
- PPP Site











# Proposal of Application Notice

- Mail drop to residents (proposed c300/actual c1500)
- Community Council, Businesses Landowners, other stakeholders (QMU/ELC)
- Briefings: MPs/MSPs/Elected Members
- Public events (proposed 3/actual 6)
- Individual Meetings
- Community Councils (MC/CEC/Musselburgh)
- Statutory Consultees
- Press adverts
- Notices/letters/Leaflets/Libraries
- Scottish Waste Aware Study (Edinburgh and Midlothian)
- Website ([Zerowastefuture.com](http://Zerowastefuture.com))

# Planning Permission in Principle 2011

**Anaerobic Digestion** - 30,000 tpa for food waste

**MBT** - 200,000 tpa to produce RDF

**EfW** - 100,000 tpa for residual waste

# Key Issues from PAC

1. Traffic
2. Noise
3. Odour
4. Visual Impact
5. Vermin



# Benefits Raised

- Development of derelict site
- Potential for heat and power
- Jobs
- Reduction in Vermin
- Safety
- Better environment
- Move from landfill
- Potential rail use
- Reduction in Bike scrambling

# Waste Aware Study

- 77% agreed that a Zero Waste Parc was either a “good” or “very good” concept
- 65% said a Zero Waste Parc at Millerhill was either “acceptable” or “very acceptable”
- 96% agreed use of heat for homes was a good idea
- 70% positive about EfW as alternative to landfill
- 87% felt Millerhill was a suitable location

# Planning and Permitting

## Current Position

- Full Planning Permission in Place for Food and Residual. (no public objection and only 1 objection from a house builder)
- Permit in place for food and residual

# Communications

- Dedicated Communications
- Market Sounding
- Consistent communications
- Activity
  - Project Website
  - Newsletters
  - Social media
  - Attitude surveys
  - Community Engagement



### Latest News

Missed Us First Time Round?  
Another Chance to Have Your Say  
on Zero Waste Plans

We're continuing our public  
consultation on plans to build a waste  
treatment facility on a derelict site near  
Millerhill in Midlothian, find out when  
and where it is all happening.  
[Read full news article »](#)

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## Just one recycled aluminium can saves enough energy to run a television set for 3 hours

► [Waste Treatment Technology](#)

### The Waste Cycle



Find out what happens to  
household waste and enter our Zero  
Waste World.

► [Where your waste goes](#)

### Zero Waste Project Site



Find out more about the project site  
near Millerhill in Midlothian.

► [More on the project site](#)

### Managing waste for the future



Learn more about what the City of  
Edinburgh and Midlothian Councils  
are doing to reduce, reuse, recycle  
and recover value from waste.

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# Procurement and Contracting Strategy

## Review and Assessment of Options 2010

### **Procurement Options (5)**

- Range of operational start dates
- Procurement of residual only or include food
- One or two procurements

### **Contract Options (4)**

- Design Build
- Design Build Operate
- Design Build Finance Operate
- Merchant

# Procurement Strategy

- 2 separate procurements
- Competitive dialogue process
- Project site offered
- Asset reversion not mandatory
- Focus on tried and tested technology
- No capacity limits
- Low GMT required
- Standard PPP risk allocation
- No outline solution stage
- Capital contribution and power purchase option for residual

# Project Approach

## **Non Prescriptive about:**

- Technology (apart from AD in food)
- Sites (preferred site at Millerhill)
- Capacity

## **Benefits:**

- ✓ Allows for flexibility and encourages innovation
- ✓ Opportunity for third party income



# Evaluation Approach

Soundings from Cross Party, Cross Council Elected Members:

“What are you willing to pay more for than bare compliance?”

- Proximity and carbon benefit
- Tried and tested technology
- Solid markets
- Flexibility
- Performance incentives
- Design features
- Visitor/education facilities
- Local combined heat and power
- Local job opportunities

# Evaluation Criteria

## Food:

- Quality (Technical) 55%
  - Pass/Fail and 9 Added Value
- Quality (Contractual) 5%
- Economic Cost 40%
  - Adjustments for income potential etc
- Other considerations
  - On site/off site

## Residual:

- Quality (Technical) 50%
  - Pass/Fail and 9 Added Value
- Quality (Contractual) 10%
- Economic Cost 40%
  - Adjustments for income potential etc
- Other considerations
  - On site/off site

- Evaluation Criteria set at the outset of each procurement and preserved:
  - Avoids challenge to procurement

# Food Waste Project

## Competitive Dialogue Procedure

- OJEU: Feb 2011
- Contract Signed: Feb 2013
- Service Commencement: 2016

First successful collaborative waste treatment project in Scotland

# Food Waste Treatment

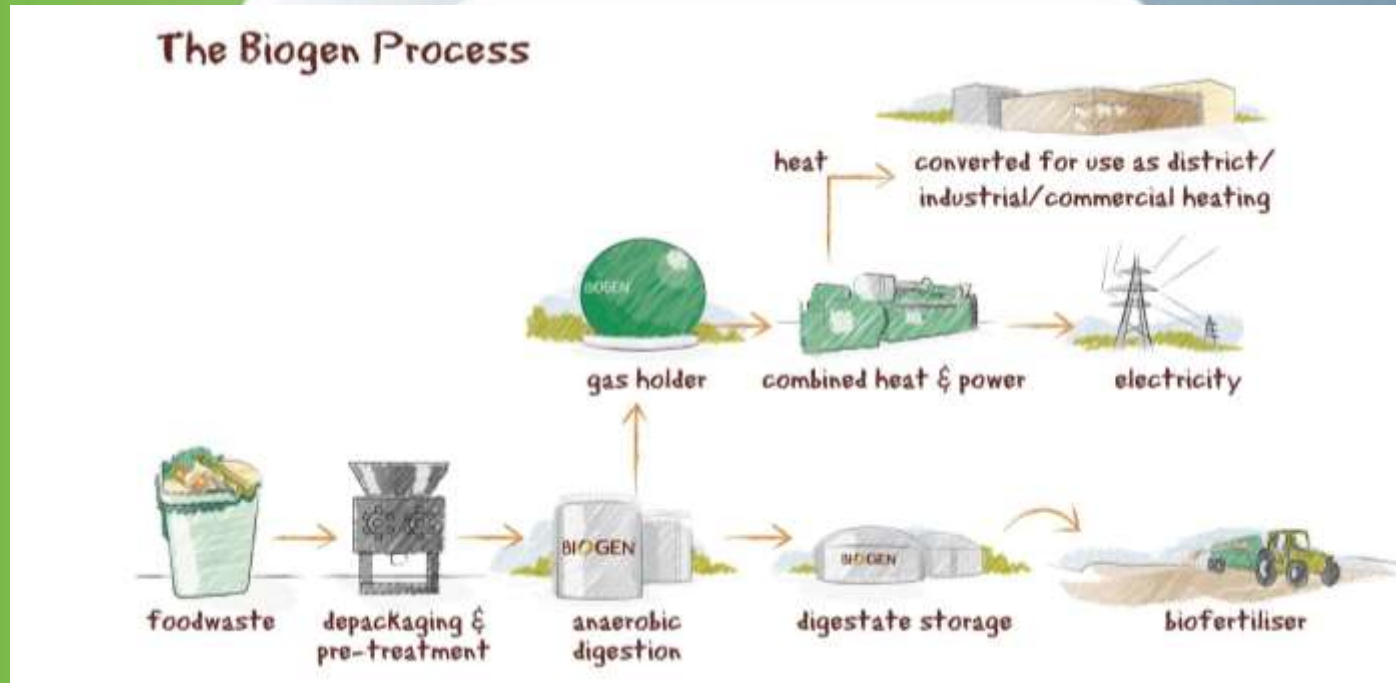
- Anaerobic Digestion (AD)
- Up to 31,000 tonnes of food waste p/a
- Fully enclosed process; proven technology
- Soil improver / fertilizer replacement produced
- Enough green electricity to power over 3,000 homes
- Detailed planning application Dec/Jan



*(Artist's impression)*



# Food Waste Treatment (cont)



Copyright Biogen 2012

- Incoming food waste is mascerated and pasteurised.
- Accelerated in-vessel composing process.
- Produces methane, used to generate renewable electricity.
- Whole digestate (not de-watered) used for agriculture.



Electricity for the grid

Fertiliser for local farms







# **Residual Waste Treatment Procurement**



## Background:

### Residual Waste Procurement

- OJEU: Dec 2011
- Shortlist 2 Bidders: Sept 2013
- Preferred Bidder: December 2014
- Contract Close: 2016
- 195,000 tonnes per year
- Service Commencement: 2018

# Residual Waste Treatment Procurement Programme

Programme Affected by

Capital Contributions  
Power Purchase  
Ground Investigations  
TTG- Pre treatment

Priority is VfM over 25 years not Procurement  
time or budget

# Technology and Outputs

- Technology (195ktpa planning)
  - Mechanical treatment
  - Moving grate EfW
- Outputs
  - Rejects
  - Metals
  - Bottom Ash
  - Fly Ash
  - Energy



Electricity for  
the grid

Hot water for heat network

# Heat Use

- Heat plan requirements
- Various potential users
- How to deliver a heat network?

Lines	Steam extraction to DSS	Gross Produced Electricity
power mode	0	13.45 MW
CHP mode	30.5 t/h (20 MW)	9.10MW

# Financial Considerations

## Value for Money & Affordability

- Gate prices / UC and trends
  - Reliance on real market intelligence over financial modelling
  - Modelling conducted to back up market data
- Comparisons & options:
  - On-site
  - Off site
  - DBFO
  - merchant
- Contract Length



# Capital Contributions

- Chance to displace some private sector debt with cheaper public sector sourced capital
- Reduces overall funding requirement, therefore drops the price per tonne
- But countered by revenue impact of borrowing
- Issues considered:
  - Timing of injection – 1 year after SC
  - Timing of borrowing Council treasury teams



# Project Finance

Total Contracts Value  
**£500m**

Procurement budget £3.8m

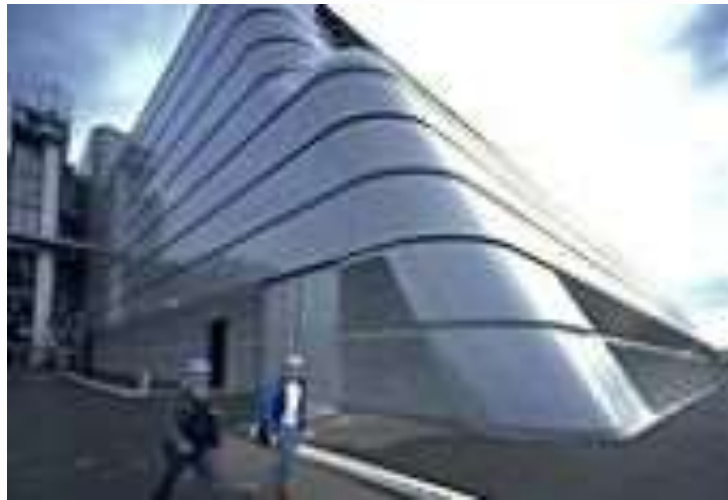
Capital budget for Site purchase £3.2m

Capital budget for site development £5.8m

Capital contribution c. £30m



# END



[www.zerowastefuture.com](http://www.zerowastefuture.com)