

# Update on the Essex Waste Strategy Project

**Epping Forest District Council**

**28 June 2007**



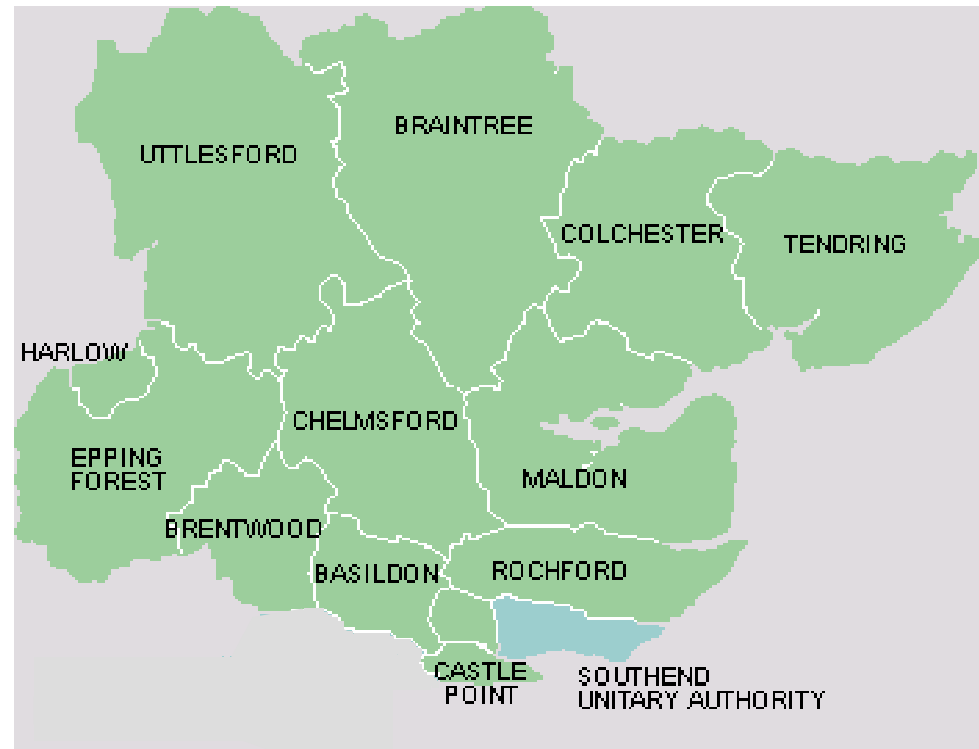
Essex County Council

# Agenda

- Essex Waste Management Partnership;
- Challenges;
- Draft Joint Municipal Waste Management Strategy (JMWMS) for Essex ;
- Private Finance Initiative (PFI) Application;
- Reference Project;
- Memorandum of Understanding (MoU) and letter of support.

# Essex Waste Management Partnership

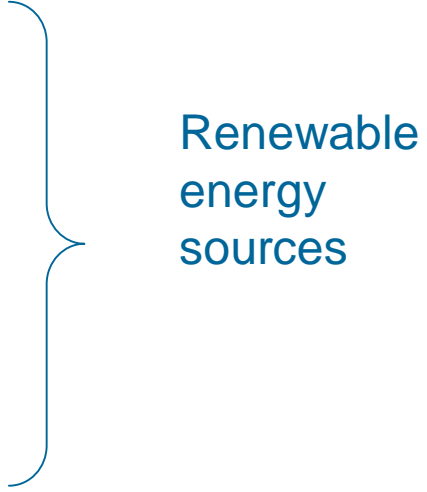
- Essex County Council;
- Twelve Essex District & Borough Councils;
- Southend on Sea Borough Council;
- Governance:
  - *Three area Joint Committees*
  - *Waste Management Advisory Board*



# Challenges – Waste Management

- Currently landfill approx. 65% of household waste produced;
- Legislative Drivers for change:-
  - *Landfill Tax*;
  - *EU Landfill Directive*;
  - *Landfill Allowance Trading Scheme (LATS)*;
- Reducing waste volumes;
- National Recycling Targets;
- Financial risks - substantial penalties for failure;
- Environmental responsibility – resource management, climate change, energy.....

## Challenges – Energy & Climate Change

- More sustainable waste management systems could positively contribute towards tackling climate change;
  - Production of biogas from anaerobic digestion of organic material;
  - Recovery of a solid recovered fuel from a small fraction (20%) of household residual waste.
- 
- Renewable energy sources

## Essex Strategy – key objectives

- Reduce waste, maximise reuse and recycling;
- Decrease the rate at which household waste grows;
- To reach a recycling rate of 45% by 2010/11;
- Essex authorities have a vision to recycle and compost 60% of all household waste no later than 2032;
- Extract value from any residual waste left;
- Minimise waste to landfill.

**Essex's policy for dealing with waste is one of high recycling & biotreatment**

# County Council Policy

- That the County Council invites solutions for the long-term management of its residual waste requiring:-
  - *The development of front end sorting to further recover dry recyclable material;*
  - *The development of either anaerobic digestion or mechanical biological treatment coupled, as appropriate, with the recovery of biogas;*
  - *Invite contractors to identify and propose options for the management of the residual waste after treatment including the possible development of compost, soil conditioner, landfill or the use of a refuse derived fuel.*

# Waste Strategy Project – PFI Application



# Objectives of the Waste Strategy Project

*“To procure facilities for the medium & long term management of Essex & Southend’s waste.*

*To work in Partnership with Southend & the twelve Districts and Boroughs to implement an integrated collection, treatment & disposal system which will deliver the aspirations of the Waste Strategies of Essex & Southend”*

## Why PFI?

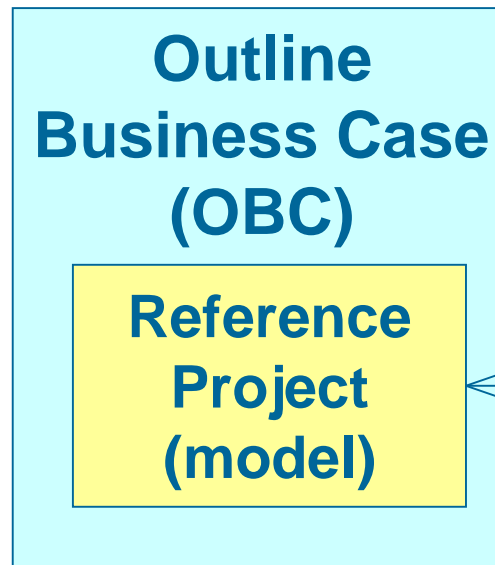
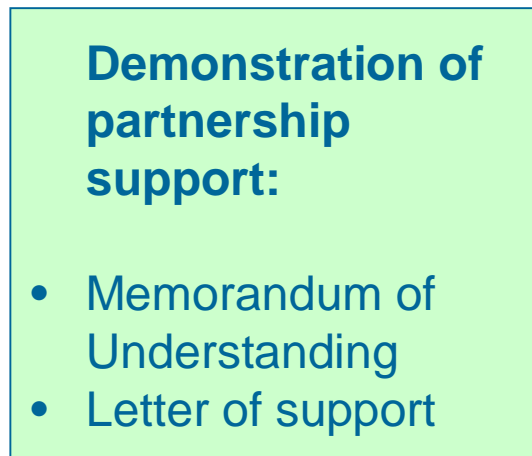
- Most economically advantageous funding and procurement route for the Council Tax payers of Essex and Southend;
- Essex and Southend have been allocated £90m of 'PFI Credits' – equates to £7-8m revenue per annum;
- Highly structured process.

# PFI Application History

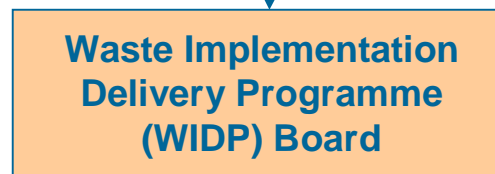
- In Dec '05, Essex and Southend submitted an Outline Business Case to Government for PFI credits;
- In May '06, the PFI eligibility criteria were changed by Defra;
- During 2006/07, Essex and Southend have been negotiating with Defra to produce a new PFI bid;
- The new OBC meets the current PFI eligibility criteria;
- Respond to outside pressures, e.g. recycling and landfill diversion targets, threat of financial penalties, security of energy supplies; significant environmental benefits;
- New OBC needs to be submitted to Defra by end of July '07.

# PFI Application Process

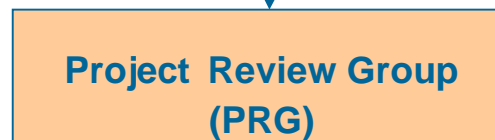
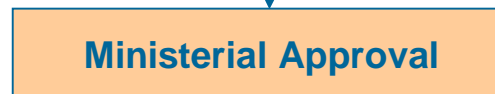
## Application



- Bankable
- Affordable
- Deliverable

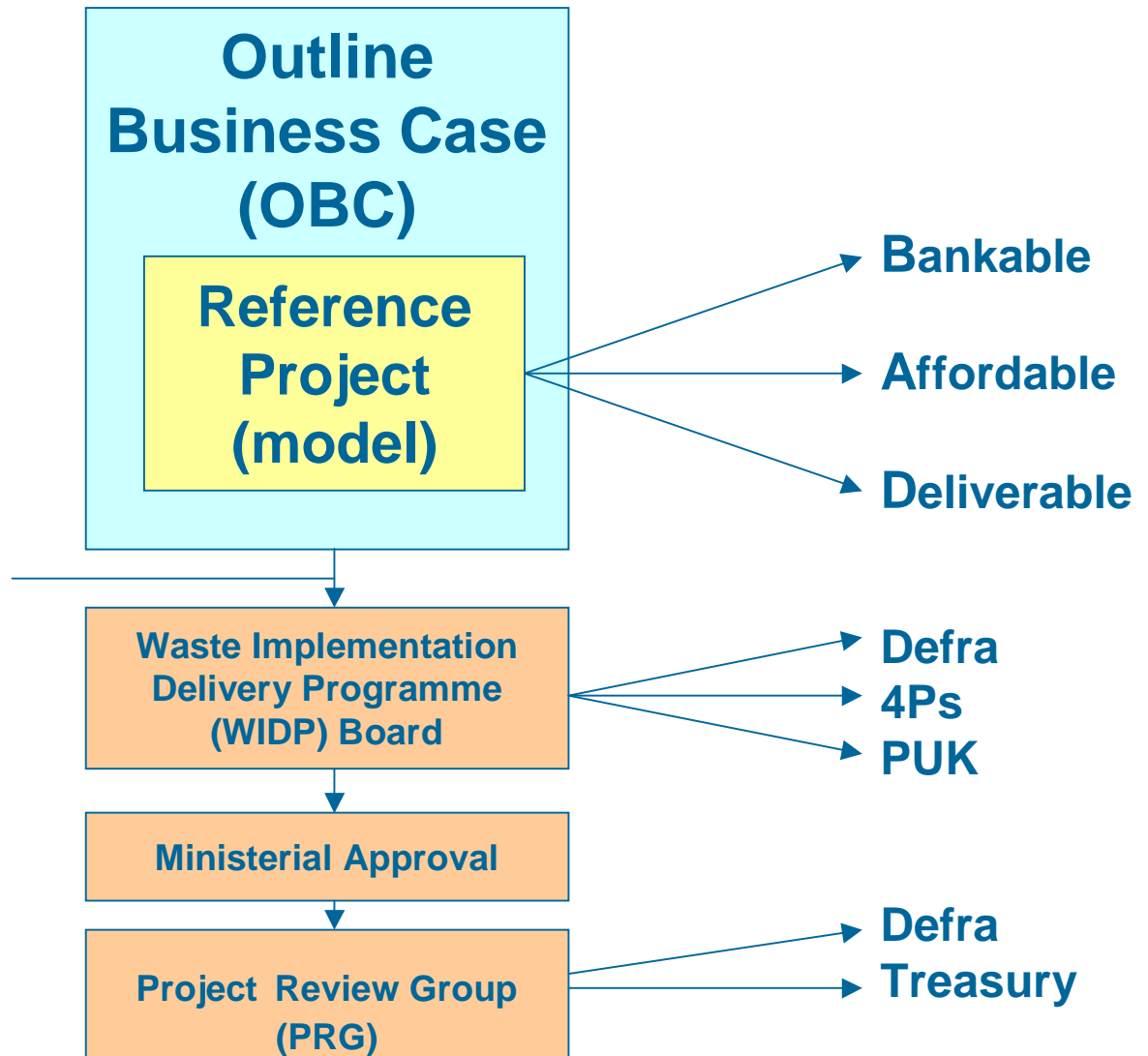


- Defra
- 4Ps
- PUK



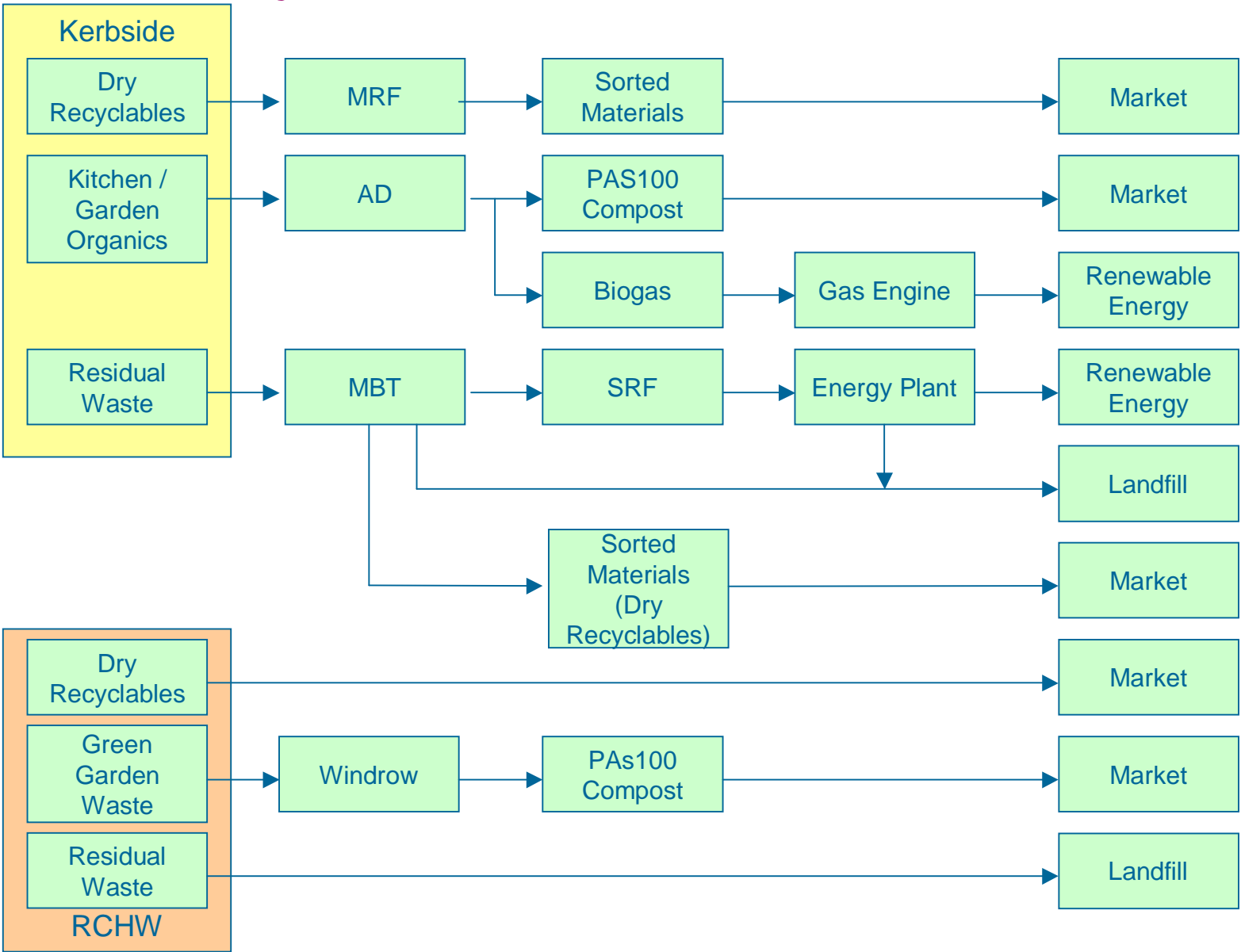
- Defra
- Treasury

## Approval

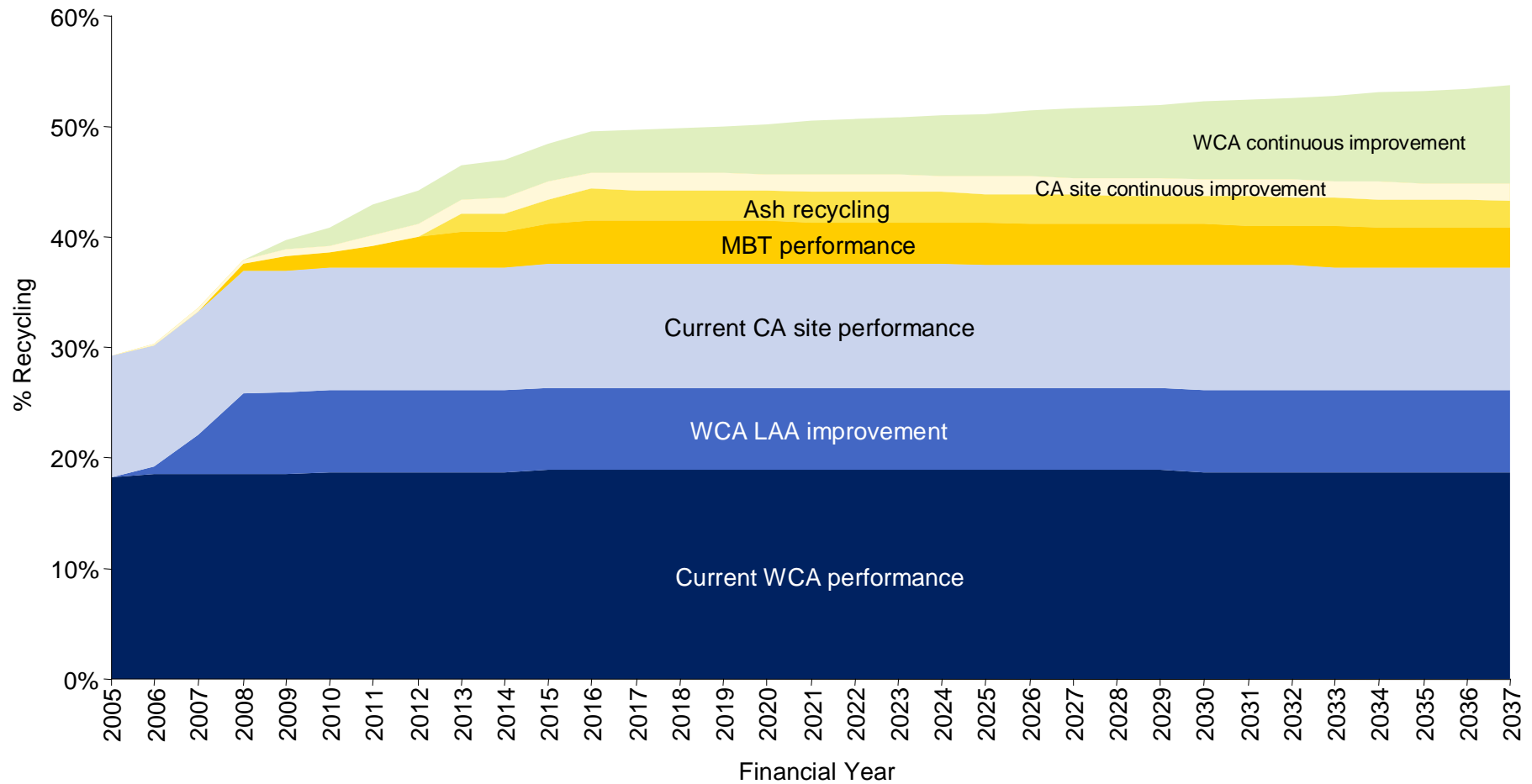


# Reference Project

### PFI Reference Project Waste-flows (Whole system)

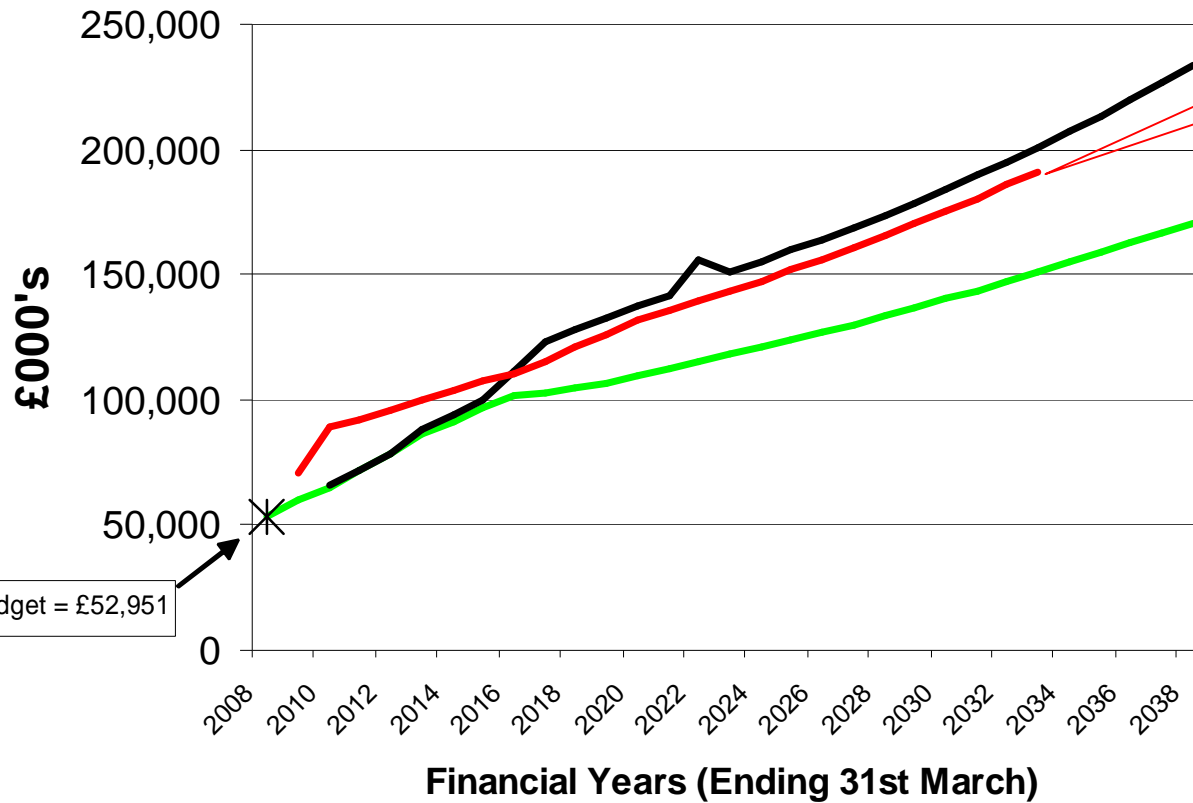


# Recycling Performance



- Current WCA performance
- WCA LAA improvement
- Current CA site performance
- MBT performance
- Ash recycling
- CA site continuous improvement
- WCA continuous improvement

### ECC Waste Management Cost Options (with smoothed Reference Project costs)



2007/8 Budget = £52,951

2005 Reference Project

2007 Reference Project

- Total budget required in nominal prices for all Waste Management Services (MBT + SRF Energy)
- Do Minimum (2007)
- 2005 Reference Project (MBT/AD with landfill of SRF)



# Reference Project - Technology Options and Benefits

## Reference Project Benefits (1)

### Anaerobic Digestion of Source Segregated Organic Waste (e.g. food waste)

- Produces high quality compost - meets nationally recognised quality standard (PAS 100);
- PAS 100 composts have a good long term, sustainable markets;
- Can also produce a useful liquid fertiliser;
- Yields higher rates of biogas - renewable energy
- Eligible for renewable obligation certificates (approx twice the value of normal electricity);
- In line with recent Waste Strategy for England.

## Reference Project Benefits (2)

### Energy Plant for Solid Recovered Fuel (SRF)

- SRF is manufactured from only a fraction of the waste after as much material has been pulled out for reuse and recycling first;
- SRF is a higher quality product than refuse derived fuel and has much tighter quality specifications;
- The use of SRF is not mass burn incineration; only a fraction of the waste is used to manufacture SRF (20% of the total waste stream);
- If both heat and electricity can be captured, then the power generated will be eligible for renewable obligation certificates;
- Can contribute to security of energy supply;
- The energy produced could provide electricity for 55,000 homes in Essex.

## Reference Project Benefits (3)

### MBT and Energy Plant

- The use of MBT to treat residual waste and recovering energy from the SRF rather than burying it, are more beneficial in terms of climate change impacts than continuing to send waste to landfill;
- Any energy plant built will meet the highest standards of emission control set for industrial facilities;
- Using SRF in an energy plant is also a more cost-effective solution than landfilling SRF due to:-
  - Ø Avoided landfill costs;
  - Ø Avoided Landfill Tax;
  - Ø Avoided risk of failure to comply with landfill diversion targets;
  - Ø Higher value renewable energy supply.

# Partnership Support - MOU

## Benefits to Districts of Signing MoU and Letter of Support?

- Evidence of continued partnership working;
- Potential to access partnership infrastructure:-
  - *Transfer stations;*
  - *MRFs;*
- Access to funding formula support – incentives for high recycling;
- Contribution towards delivery of the Essex Waste Strategy;
- Does not go beyond existing recycling performance commitment (LAA);
- Significant environmental and financial benefits to Essex;
- Reduces overall waste management costs to Council Tax payers of Essex.



# Questions