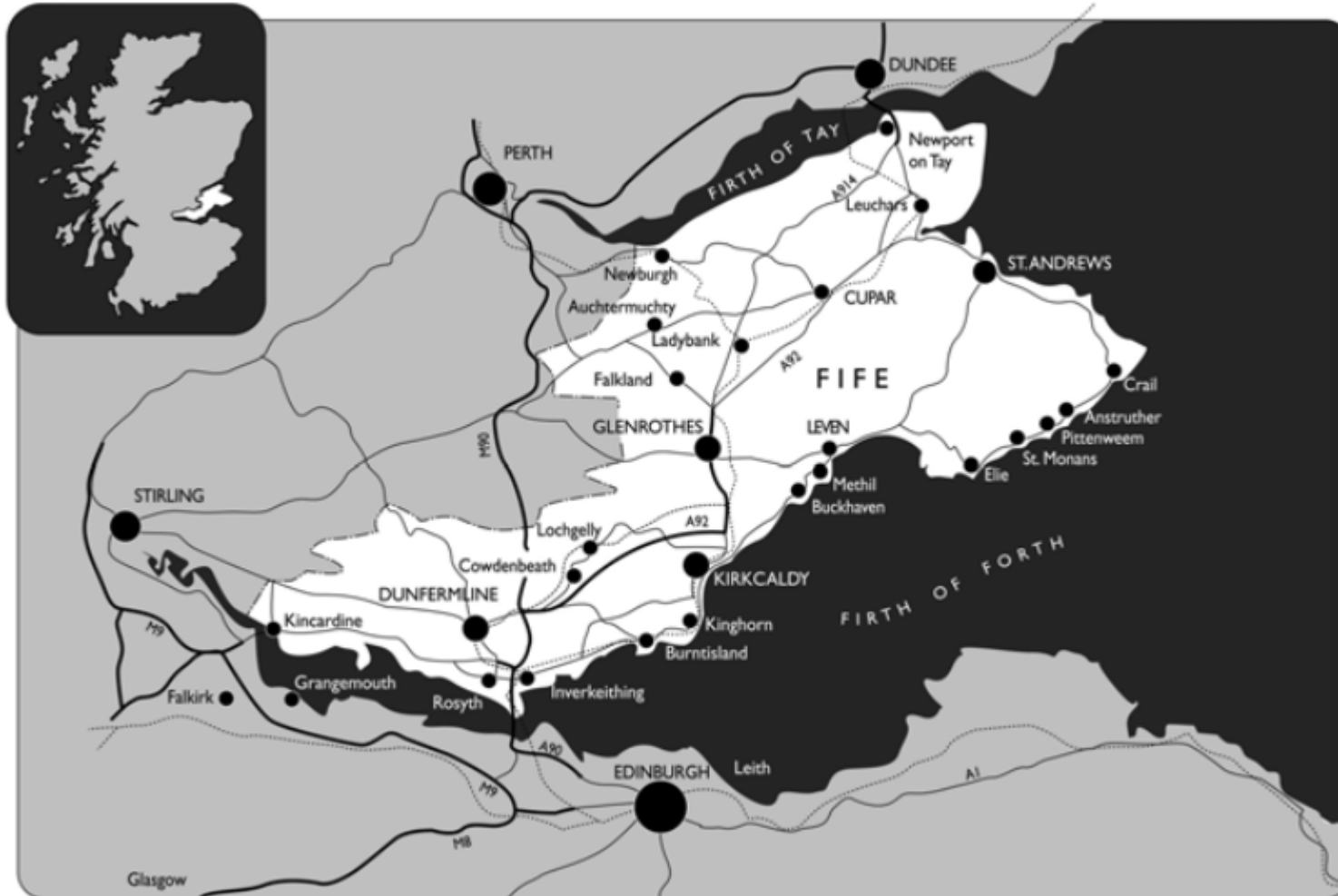




# “How Fife is crunching it’s carbon”

Fraser Thomson  
Head of Environmental Services  
Fife Council



*working to make Fife the best place to live, work and visit*



# Why are we reducing our carbon?

- Climate Change
- Cost
  - Energy and water bills
  - Carbon Reduction Commitment (CRC)
- Legislation and Policy
  - Scotland's Climate Change Declaration -80% by 2050 (approx. 3% per year)
  - leading green Council (Council Plan)



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# Roles for a Local Authority

- Addressing Municipal Activities
- Enabling Private Sector Development
- Facilitate Community Enterprise



# Addressing Municipal Activities

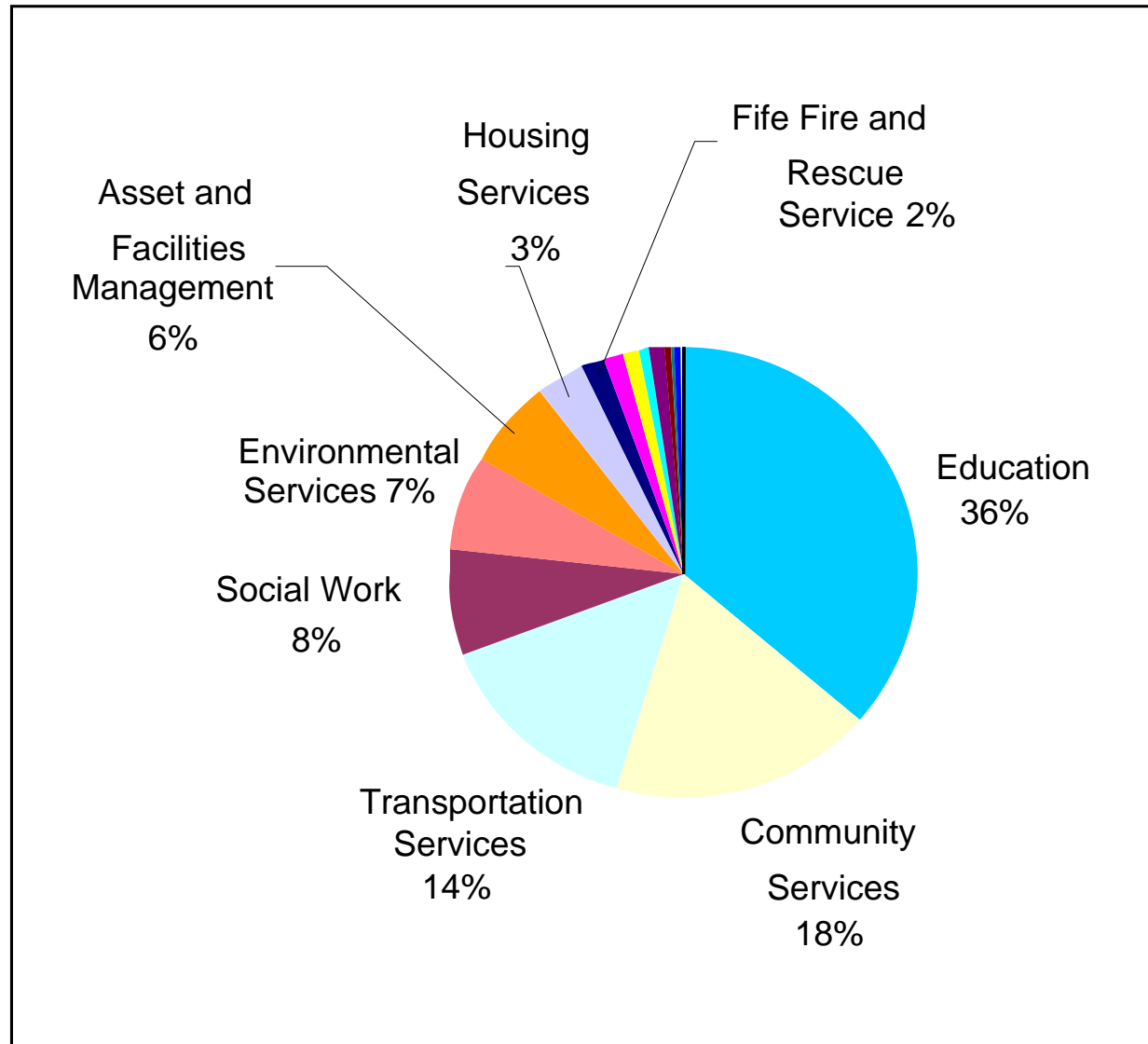


# Carbon Reduction Strategy

- Measure
- Set Targets
- Implement Change
- Audit

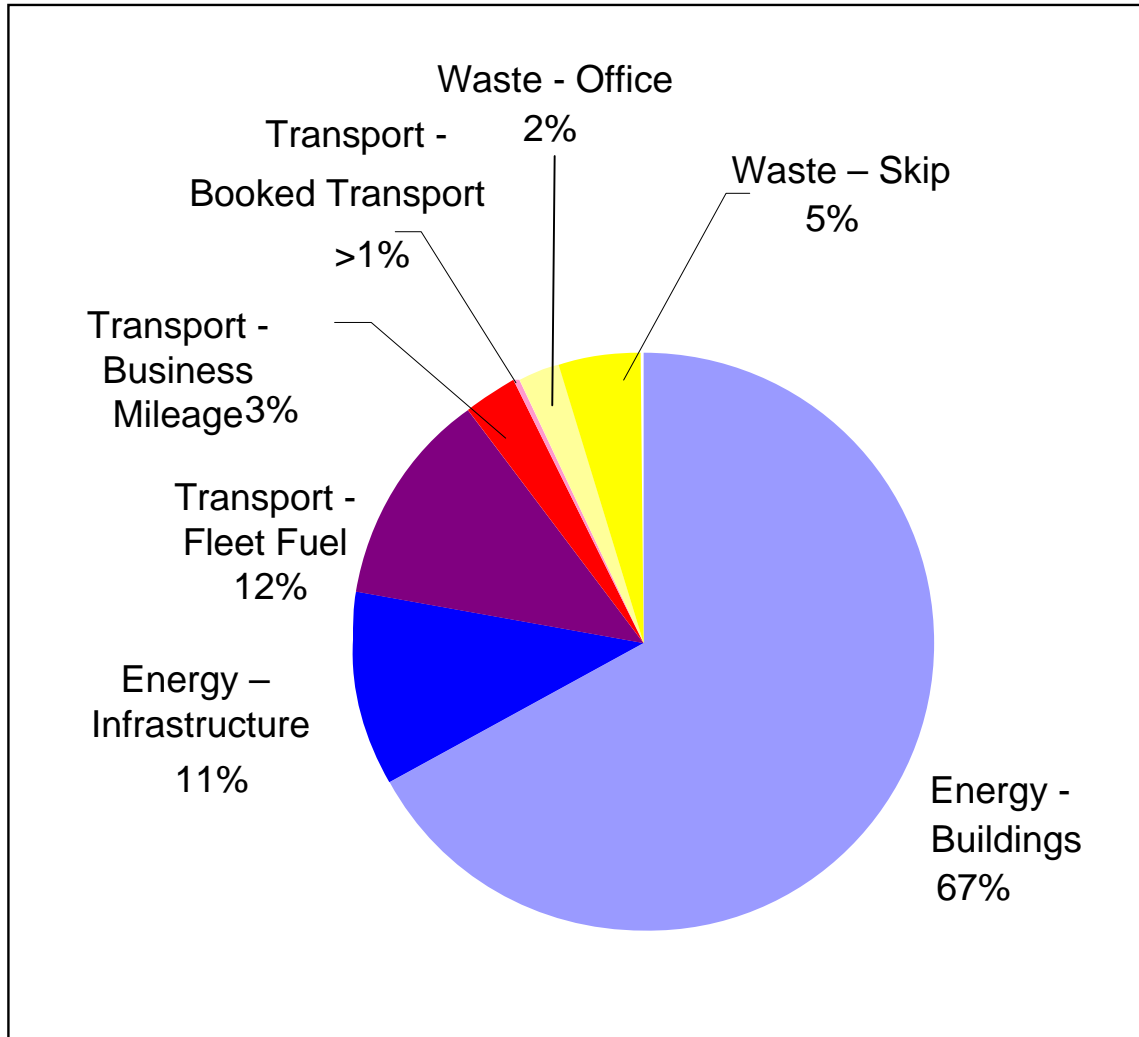


# Measure - carbon footprint



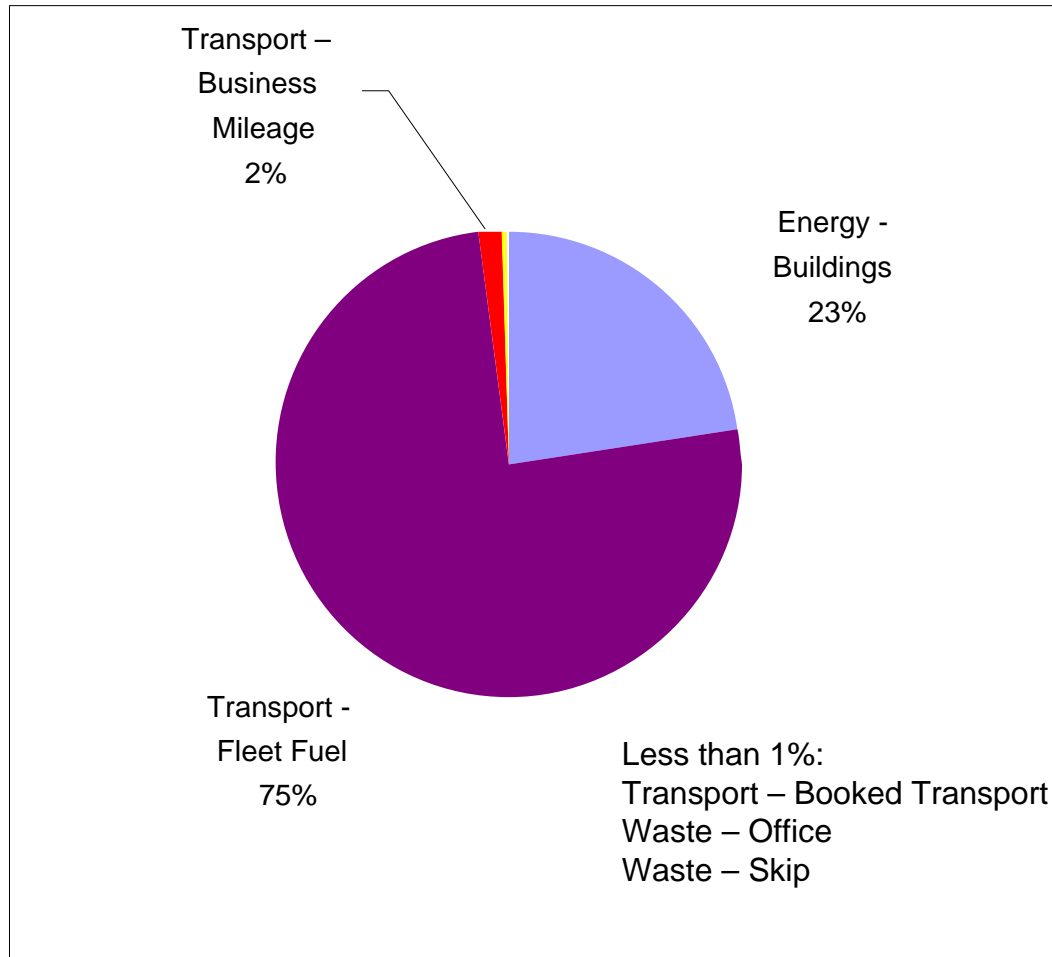
**SERVICE**

**Total for 07/08  
113,694 tonnes  
CO<sub>2</sub>e**



**ACTIVITY**

**Total for 07/08  
113,694 tonnes  
CO<sub>2</sub>e**



## Environmental Services

Total for 07/08

7,546 tonnes

CO<sub>2</sub>e



# Set Targets



## Set corporate targets

- Annual Council target of a 3% reduction in emissions

Key Business Results	2007 Baseline	2011 Target
Total <b>Fife Council</b> energy consumption Carbon Emissions (Tonnes)	77,799	68,875
Total business mileage claimed by <b>Fife Council</b> employees (Tonnes – excl. fleet)	3,375	2,988
Total <b>Fife Council</b> fleet fuel consumption Carbon emissions (Tonnes)	13,286	11,762



## Set targets by service

- Annual Service target of a 3% reduction in emissions

Key Business Results	2007 Baseline	2011 Target
Total <b>Environmental Services</b> energy consumption Carbon Emissions (Tonnes)	1,635	1,447
Total business mileage claimed by <b>Environmental Services</b> employees (Tonnes – excl. fleet)	117	104
Total <b>Environmental Services</b> fleet fuel consumption - Carbon emissions (Tonnes)	5,455	4,829



# Implement Change



## Behavioural Change

43.5% of waste recycled (08/09)

50% target for 2013

Zero Waste strategy

Highest levels of participation

Available to local businesses



Fife's New Recycling Centre



## Change the Technology



- Harnessing of methane gas at two sites – Dunfermline & Ladybank
- Total generation of 3.5MW of electricity
- Combined level of CO<sub>2</sub> emissions reduced at both sites = 65,300 tonnes
- CHP will heat 200 homes & 7 public buildings



# Audit

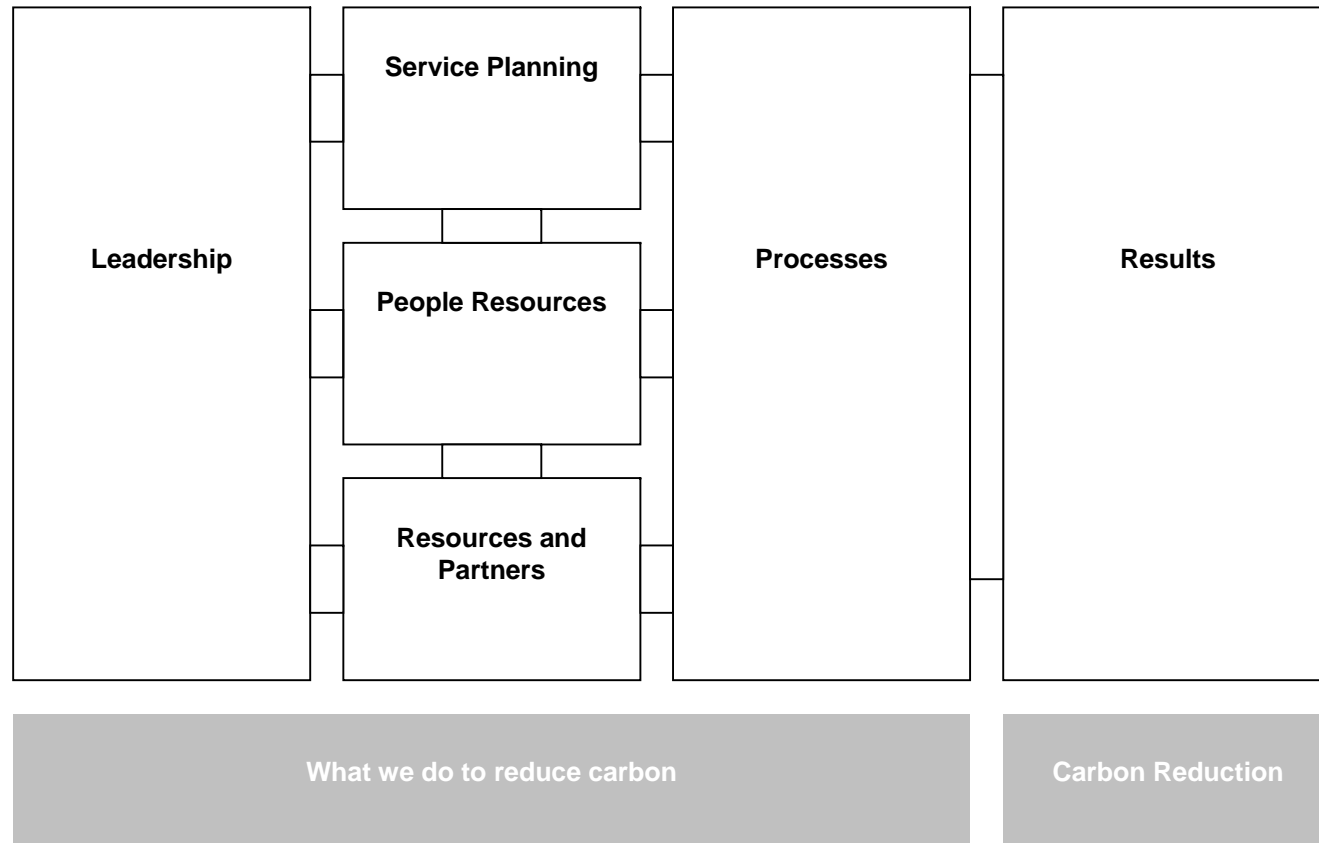


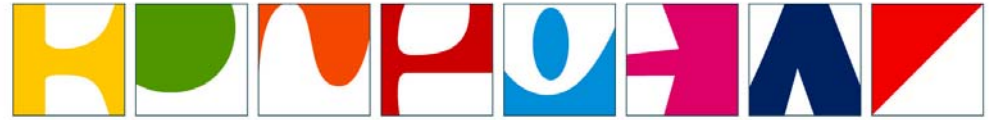
# AUDIT (carbon management)

- Service Audit - high level
- Team Audit - in detail



The high level audit uses the established EFQM model as a basis for reporting carbon performance of Services





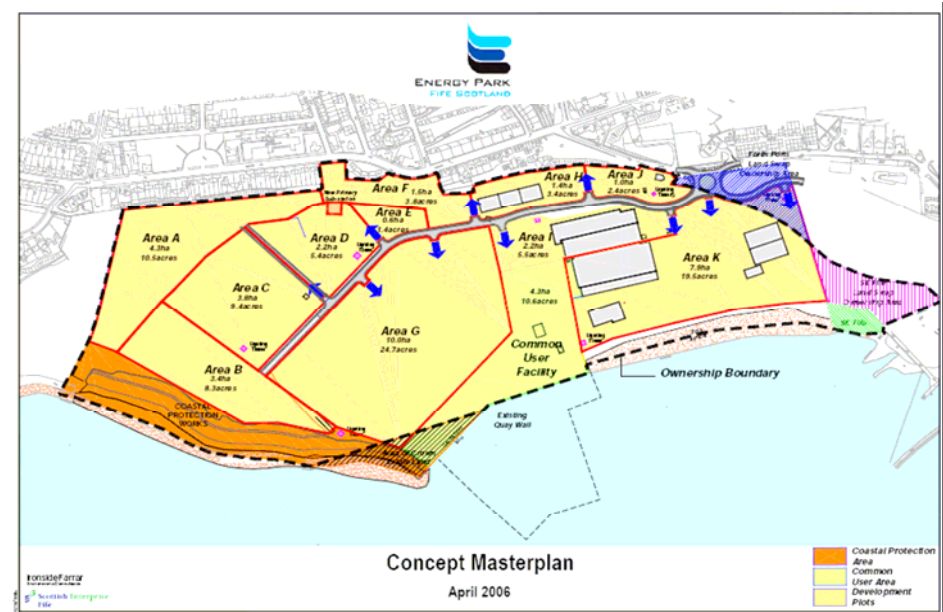


# Enabling Private Sector Development



# Scotland's Energy Park - Methil

- Land use planning - Zoning for development
- Fife's grid connection potential:
  - Longannet
  - Fife Energy Park
  - Westfield
  - 2 landfill sites
- Longer term strategies for Renewables:
  - Coal mine water potential
  - Methane extraction from coal





# Westfield

- Scotland's first biomass plant at Westfield Development Centre - EPR
- Operating since 2000
- Plans to develop Fife's first green business park
- Current rail access can be developed to suit new projects
- Infinis planning a 40MWe biomass/CHP plant
- National grid connection





# Longannet

- New 20 MWe biomass plant
- Will burn dried sewage pellets & waste wood
- Commissioning 2010
- ScotAsh Double Queens Award winners
- One of Europe's 100 Hottest Green companies



CO <sub>2</sub> reduction (tonnes)	134,000
Investment	£100m+
Jobs created	30



Queens Award for Enterprise – Sustainable Development



# Quaker Oats



- Using oat husks to meet future energy needs
- Part of the Pepsico Group
- Subject to planning approval

CO <sub>2</sub> reduction (tonnes)	9,000
Investment	£6.3m
Jobs created	6



*working to make*

*visit*

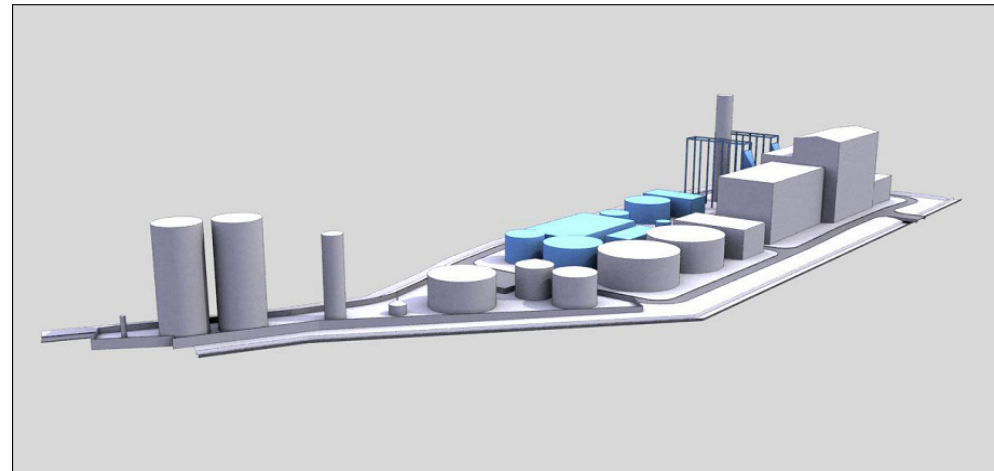


# Diageo

- New biomass plant as part of a major expansion
- Anaerobic digestion process used to produce biogas



CO <sub>2</sub> reduction (tonnes)	56,000
Investment	£65m
Jobs created	20





## Fairmont Hotel



Fairmont St Andrews Hotel Biopod

- Knowledge sharing & partnership is the way forward
- Fairmont St Andrews powers on-site vehicles from recycled cooking oil
- Council uses 35,000 litres cooking oil per year – significant fuel potential



# Facilitating Community Enterprise



# Fife's Community Projects – a Catalyst for Success

- Cardenden biomass fuelled CHP
  - District heating scheme to heat 500 homes
- Largoward community anaerobic digestion project
- Strategy for St Andrews





# The Cameron Connection



- Farm diversification & rural development
- Centred around an eco village
- Biomass CHP to generate all energy requirements



What does it add up to ?



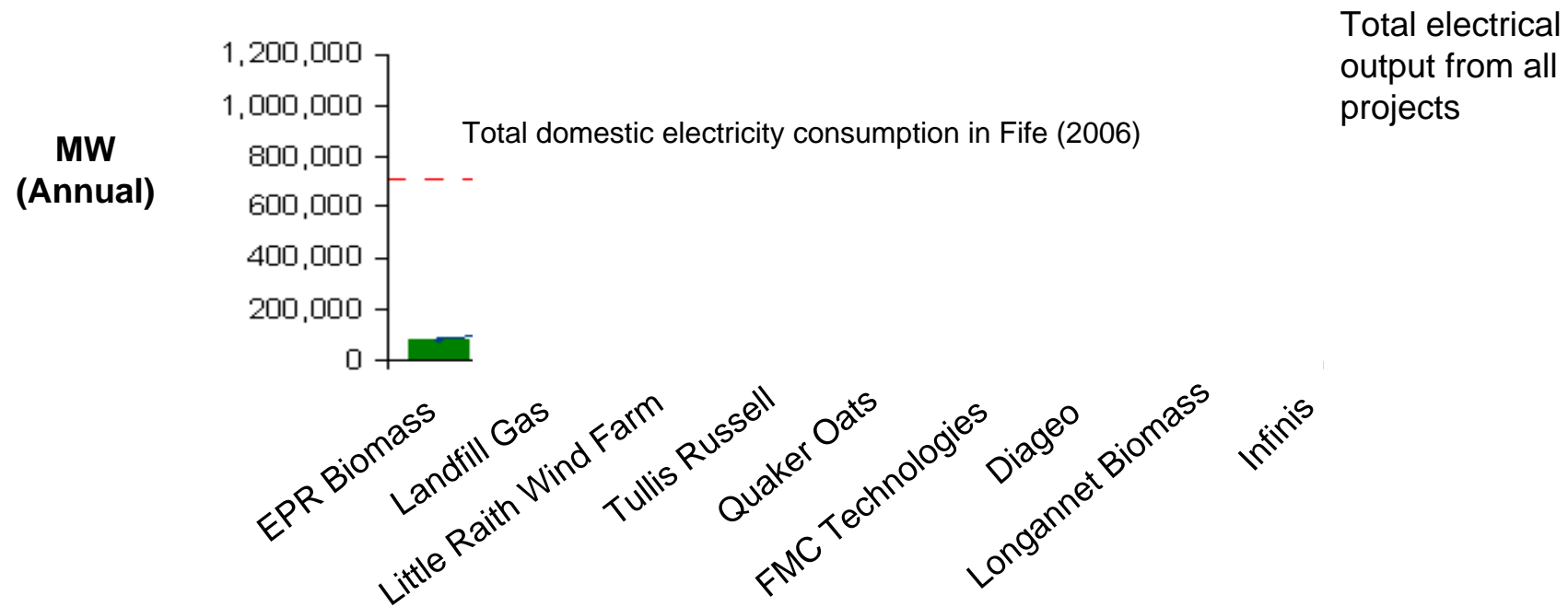
# Network of Renewable Energy Projects



*working to make Fife the best place to live, work and visit*



## Electrical Output from proposed Renewable projects in Fife



Source: Fife Council/BERR



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