

Woking Borough Council
Thameswey Limited



14th April 2010

Achievements and Challenges

John Thorp

**Group Managing Director
Thameswey Limited**

Acting Locally, Thinking Globally



Savings

Corporate

- Energy Consumption Savings (2008) -31%
- CO2 emission reductions (2008) -29%
- Sustainable Energy Self Generation (2008) +41%
- Renewable Energy Self Generation (2008) +2%

Borough Wide

- Energy efficiency of residential property (up to 2008) +35%
- CO2 emission reductions (2008) -21%
- Number of households assisted with energy conservation grants (1996 – 2008) 5,072

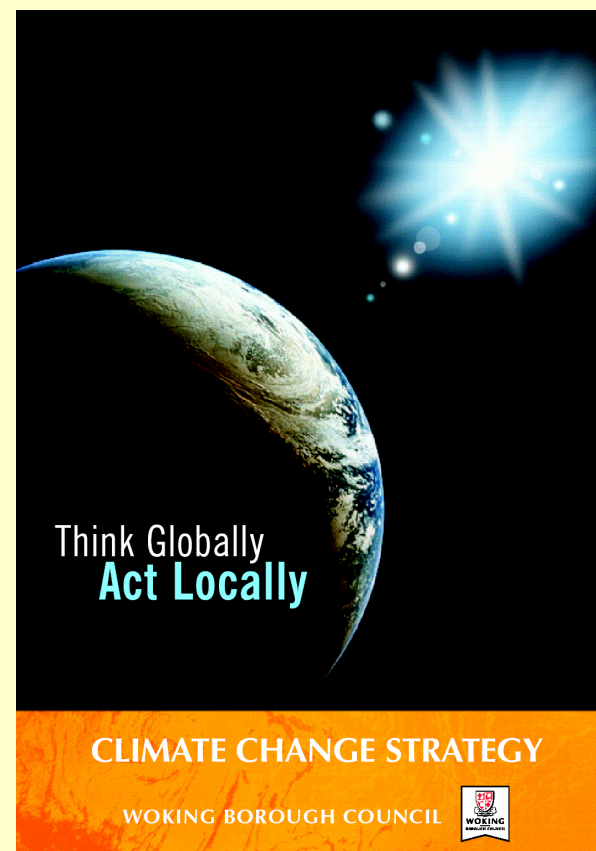
Climate Change Strategy

Three Overarching Aims

Reduction of CO₂
equivalent emissions

Adaptation to climate
change

Promotion of sustainable
development





Climate Neutral Development Good Practice Guide

Neutral risk to the climate by not contributing to greenhouse gases and,

Neutral risk from the climate by ensuring development is resilient to changes in climate



I need to submit an energy statement for my development



Developer

I need to check if a development complies with policy



Case Officer

I need to manage receipt of supporting information



Admin manager

I need to know the local policies and targets



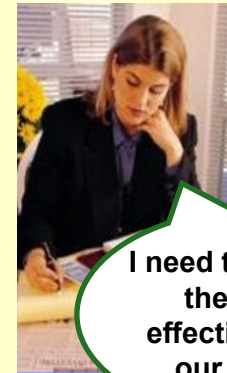
Architect/
M&E consultant

I need to know the detail of the energy statement

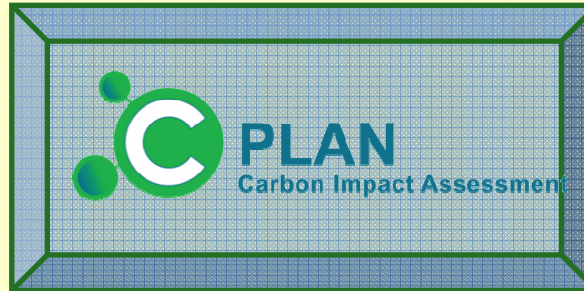


Energy advisor

I need to report on the overall effectiveness of our policies



Policy planner



Town Centre CHP

Gas fired 1.3 MW electrical, 1.6 MW heating; 1.2 MW absorption cooling, island generation

- Thameswey Energy Limited Project
- Private Supply network
- Council Buildings & Car Parks
- Businesses
 - Holiday Inn
 - Big Apple



Thameswey
Ltd

Woking Park

-Gas fired CHP 1.1MW electrical,
-Hydrogen Fuel Cell 0.2MW electrical, combined 1.6MW heating, absorption cooling 0.5MW,
-Island generation

- Self sufficient in thermal loads
- Exporter of electrical generation to other TW Energy customers

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Sustainable and Renewable Energy



New build by Council Housing Company of six flats incorporating small scale CHP and Photovoltaic roof tiles in a private wire system

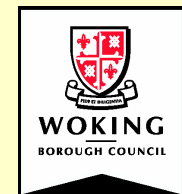
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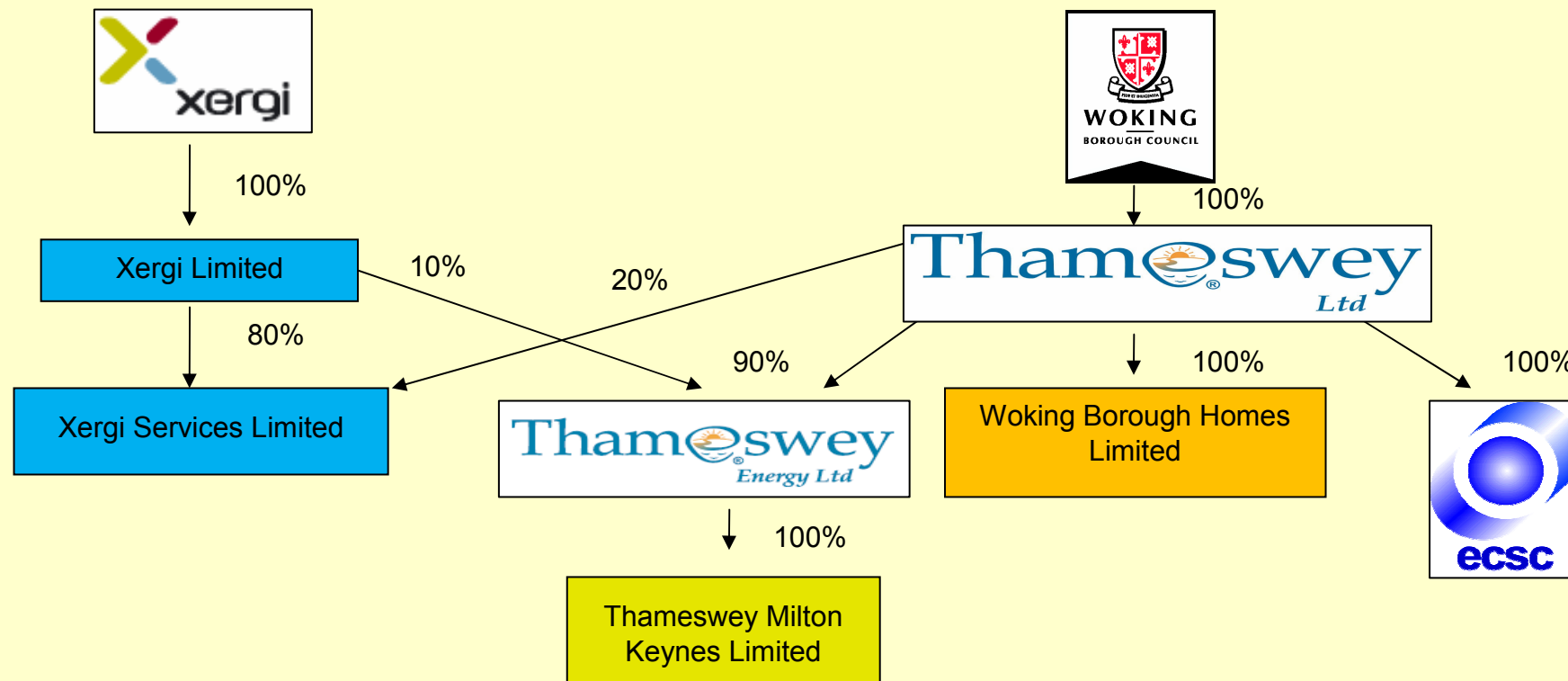
Solar Canopy

**Woking Borough Council
wanted a stunning gateway
to the town**

**35,000 PV cells laminated in
272 glass panels giving peak
electrical output of 81kWp**

**Saves 41 tonnes of carbon
dioxide emissions per year**





Delivering Energy Generation



- Twenty to Thirty year project business plans.
- Projects progressed on an internal rate of return of circa 8%.
- Economics rely upon being a generator, distributor and supplier of energy.
- Comparable” charges to businesses and 5% below a basket of major energy company dual fuel tariffs to residential customers.

Milton Keynes Energy Station



Underground pipework



Thamoswey
Energy Ltd

Underground pipework



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Efficient Housing



Efficient Housing



Woking Borough Council

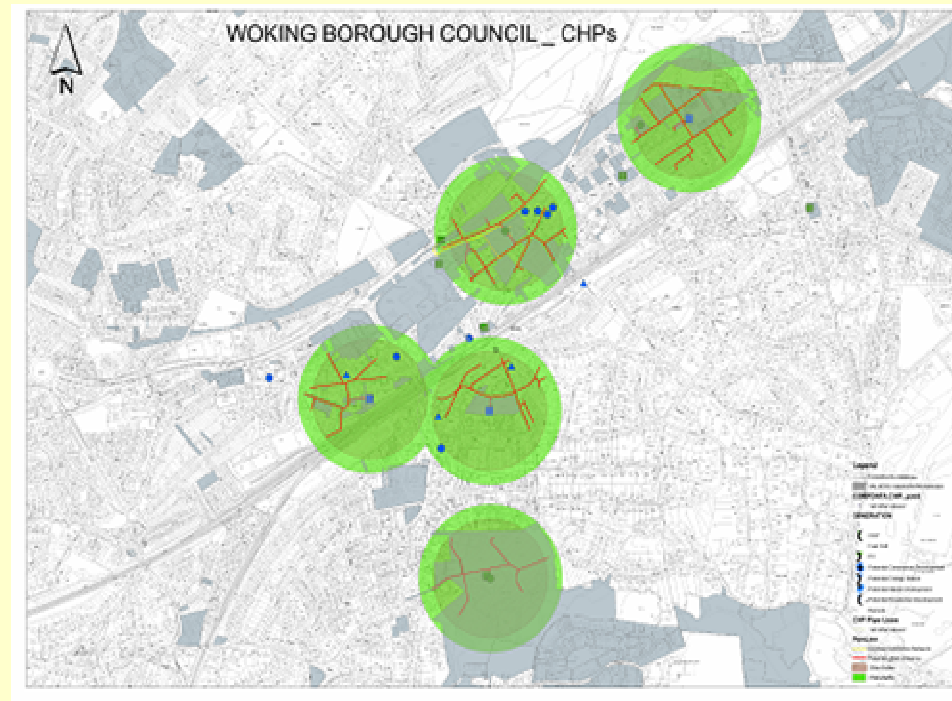
Acting Locally, Thinking Globally

**Integrate renewables and CHP
wherever possible**

**Wind turbine feasibility study
1000 Zero carbon homes project**

Carbon reduction

Social inclusion and cohesion





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