

‘Making it happen: Implementing sustainable energy – lessons learned’

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The Co-operative Group

- The Co-Operative today
- Sustainable energy so far
 - Renewables
 - Energy efficiency
- Challenges ahead
 - Big picture
 - New HQ

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The Co-operative Group

- Large and Diverse group
 - Food Retailing
 - Farming
 - Travel
 - Pharmacy
 - Financial Services
 - Funerals
 - Estates

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Track Record in Sustainable energy

- Green electricity procurement
- Wind Farms
- PV
- Micro Wind
- Micro Hydro
- Heat recovery
- Energy Efficiency

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Green Procurement

- 98% of electricity procured is CCL exempt– from wind and small scale hydro
- Co-Operative one of the largest buyers of green electricity in the UK.

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Wind Farms

Construction of an eight turbine Windfarm on Farmcare land at Coldham, Cambridgeshire. The joint venture, with Scottish Power, generates some 38.5GWh per annum



71GWh project on Farmcare land in Goole now has planning permission

More on the way...



Large PV

- UK's largest solar project commenced at CIS' Chief office December 2004
- First panel laid July 2005
- Completed May 2006
- Array generates 181MWh of electricity, and saves around 78 tonnes of carbon dioxide each year



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Micro Hydro

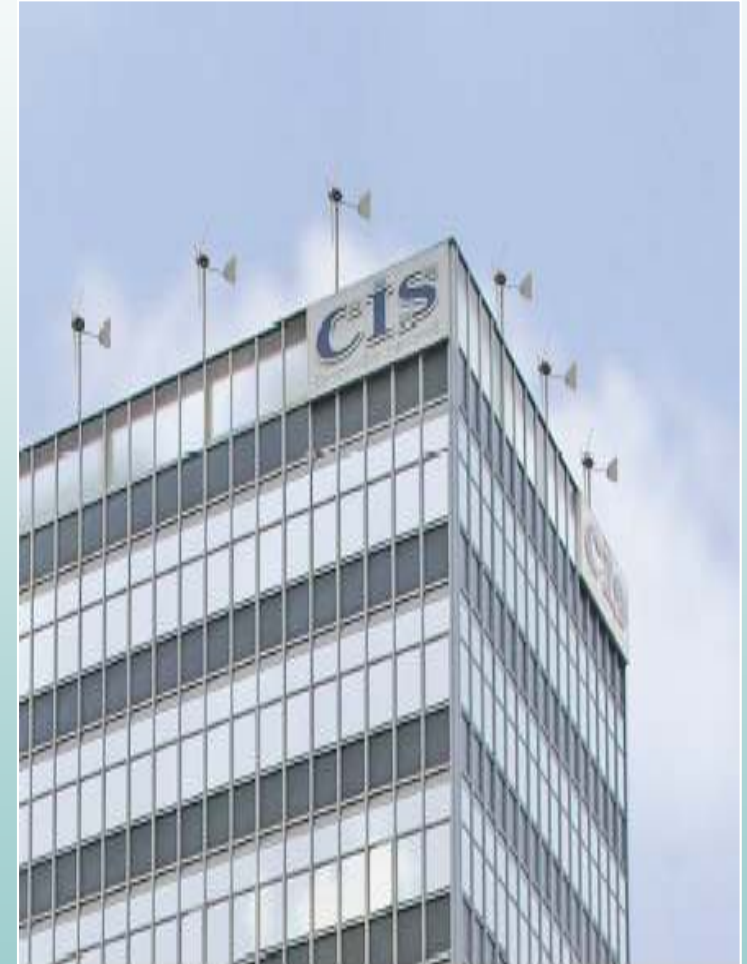
- New Mills Hydro scheme
- Local Co-Op formed which owns archimedes screw
- Peak supply just over 50kW
- Food store fed by private wire
- 10 year deal signed
- Co-Op bank funding



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Micro Wind

- 19 micro-wind turbines were installed on the roof of one of our city centre sites
- Largest-ever commercial application of micro-wind turbines in the UK
- The turbines planned to generate approx 44MWh of electricity, and save around 19 tonnes of carbon dioxide per annum



Energy Efficiency

- Targetting 25% savings by 2012 from 2006 base
- Currently half way there
- Programme covering nearly 5,000 sites
- Main focus is on food shops, major offices and distribution centres
- Broad programme covering people, metering, management information systems, store refits and targetted retrofits.
- Paybacks on capital range from 2-4 years

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Key Lessons

- Energy efficiency is the big opportunity
- Renewables struggle to be financially sustainable
- Big wind is our only large option at present

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Challenges Ahead

- Current targets
 - 99% Green procurement
 - Delivered
 - 25% energy efficiency saving by 2012
 - Half way
 - 15% from our own renewables by 2012
 - On course through large wind
 - No plans to roll out on site renewables

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The near future

- Energy efficiency
 - Will do the same things more efficiently
- Renewables
 - More big wind
 - Regulatory uncertainty with feed in tariffs etc.

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Further out.. Towards 80%?

- Energy efficiency
 - Need to do different things not just the same things better
- Renewables
 - Likely to have more embedded
- Demand management
 - Likely to join up these two

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A tangible example

- New HQ planned for Manchester
- Master plan covering HQ and existing site
- Lots of Central and Local government targets
- What should we really be aiming for?

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Targets so far

- 60% energy saving from existing estate
 - Smaller building
 - Flexible working
- BREEAM Outstanding
- Maximise efficiency of renewables – ignore on site / off site rules
- Energy solution for site
 - Review wider heat network – if anyone needs it?

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