



Energy, emissions and economic downturn

or the challenges of 2009

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The Carbon Trust



Established in 2001 by government as a independent company limited by guarantee, we have a mission to accelerate the move to a low carbon economy

We cut carbon emissions now

- By providing business and the public sector with expert advice, finance and accreditation
- By stimulating demand for low carbon products and services

We cut future carbon emissions

- By developing new low carbon technologies through project funding and management, investment and collaboration
- By identifying market failures and practical ways to overcome them

Energy

- Oil demand
 - 1980 – 60 Mbd
 - 2007 – 85 Mbd
- Peak oil?? vis increasingly expensive extraction
- Security of supply
- Coal, gas and electricity prices are linked to cost of oil
- **In markets price provides the mechanism to balance supply and demand**

Emissions

- Increasing consensus that we should restrict upper atmosphere CO_{2e} concentrations to 450 ppm
- 2009 Budget Committee for Climate Change recommendations accepted;
 - Intended budget cut of 42% (wrt 1990) by 2022
 - Interim reduction of 34% by 2022
- Increasing regulation;
 - Energy Performance of Buildings Directive
 - Scottish Building Standards
 - Carbon Reduction Commitment
- **In a carbon constrained world, licence to emit carbon will be a licence to operate**

Economic downturn

- Reduced confidence, falling demand, lack of credit, - across the globe!!
- Business response
 - Reduce overheads
 - Increase demand
- Consumers are increasingly looking at the environmental credentials of companies, products and services
- **Reducing energy demand will;**
 - Reduce costs
 - Reduce emissions
 - Improve environmental credentials
 - Future proof your business

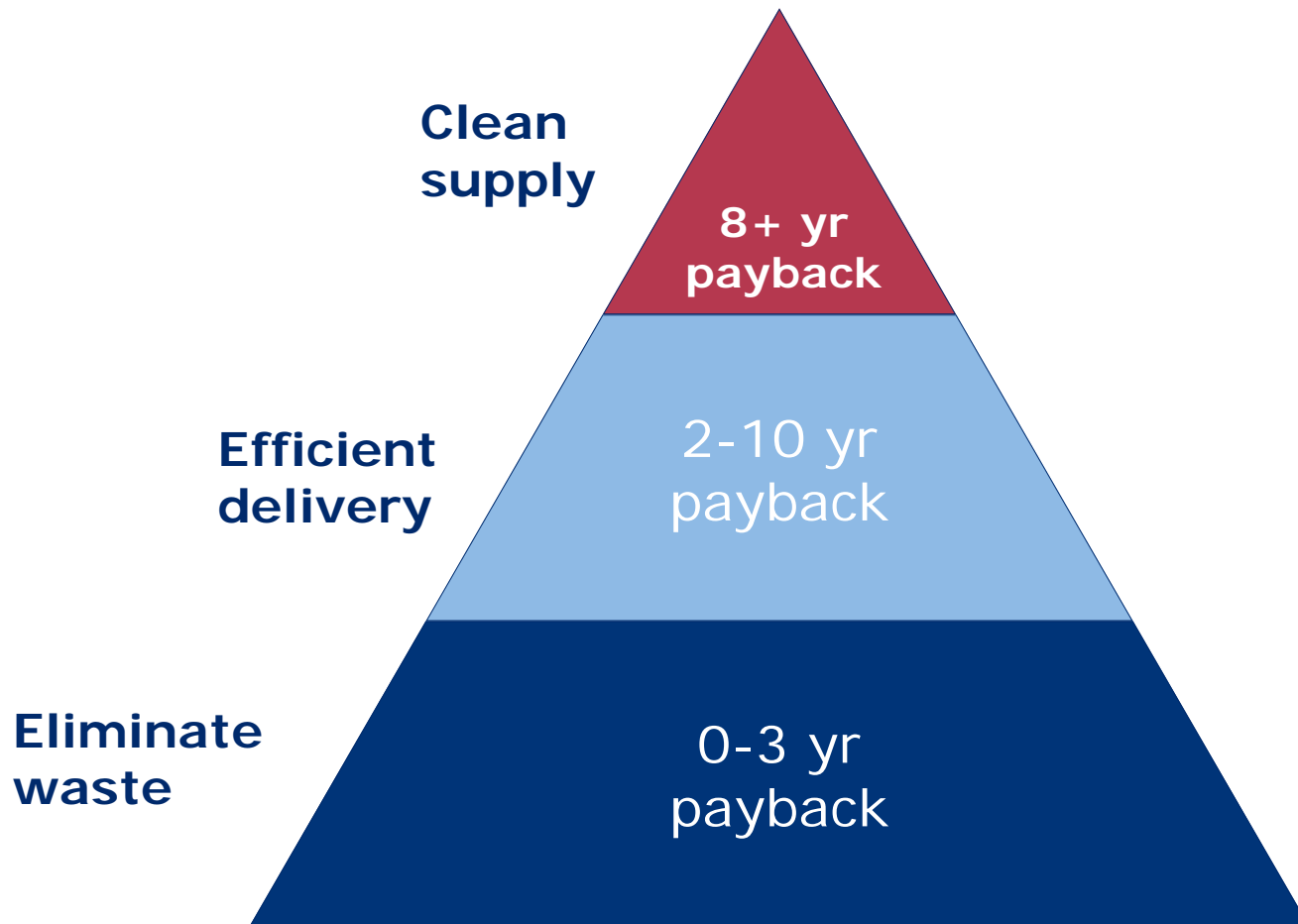
How do I go about it?

- sustainable energy hierarchy

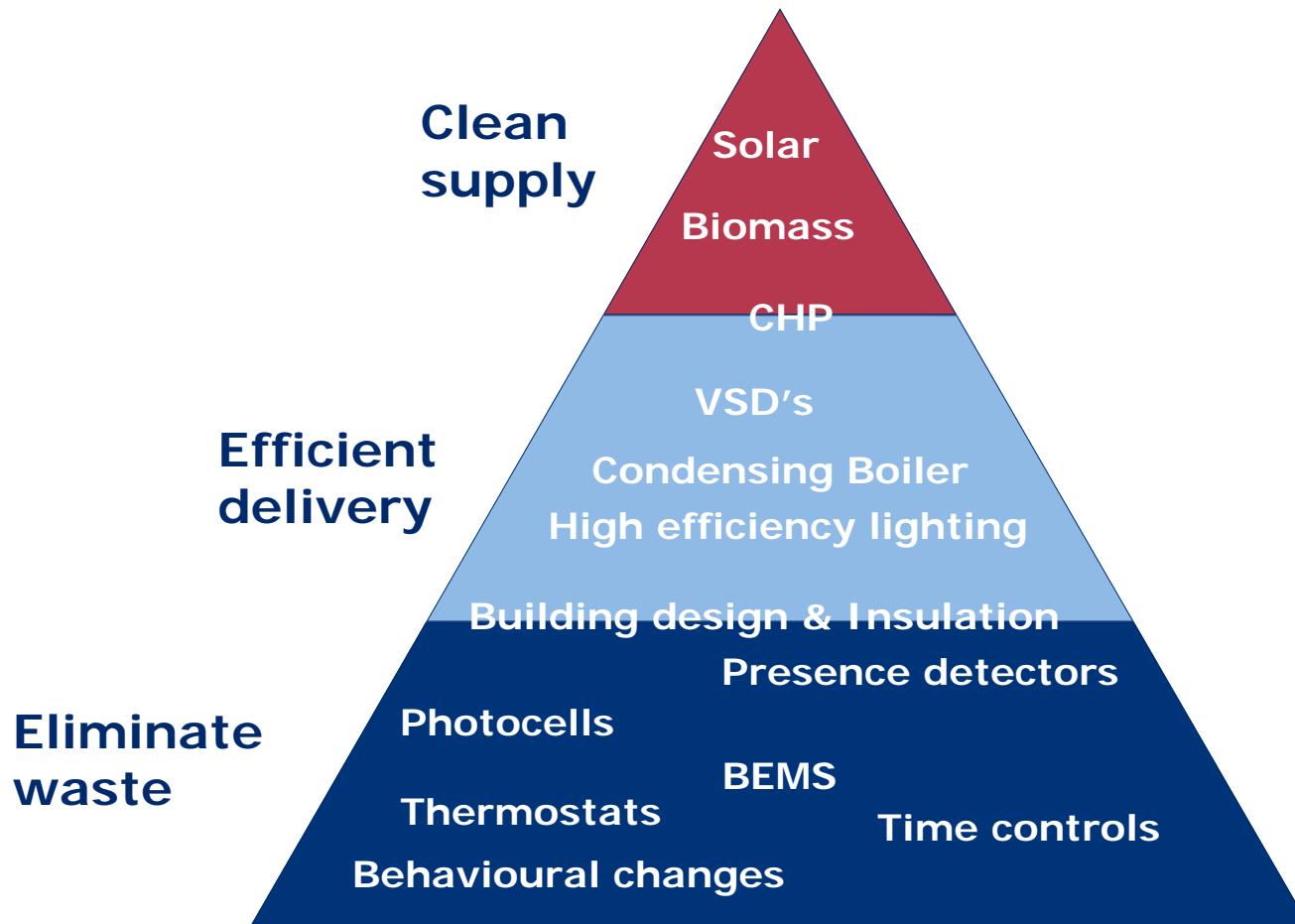


Sustainable energy hierarchy

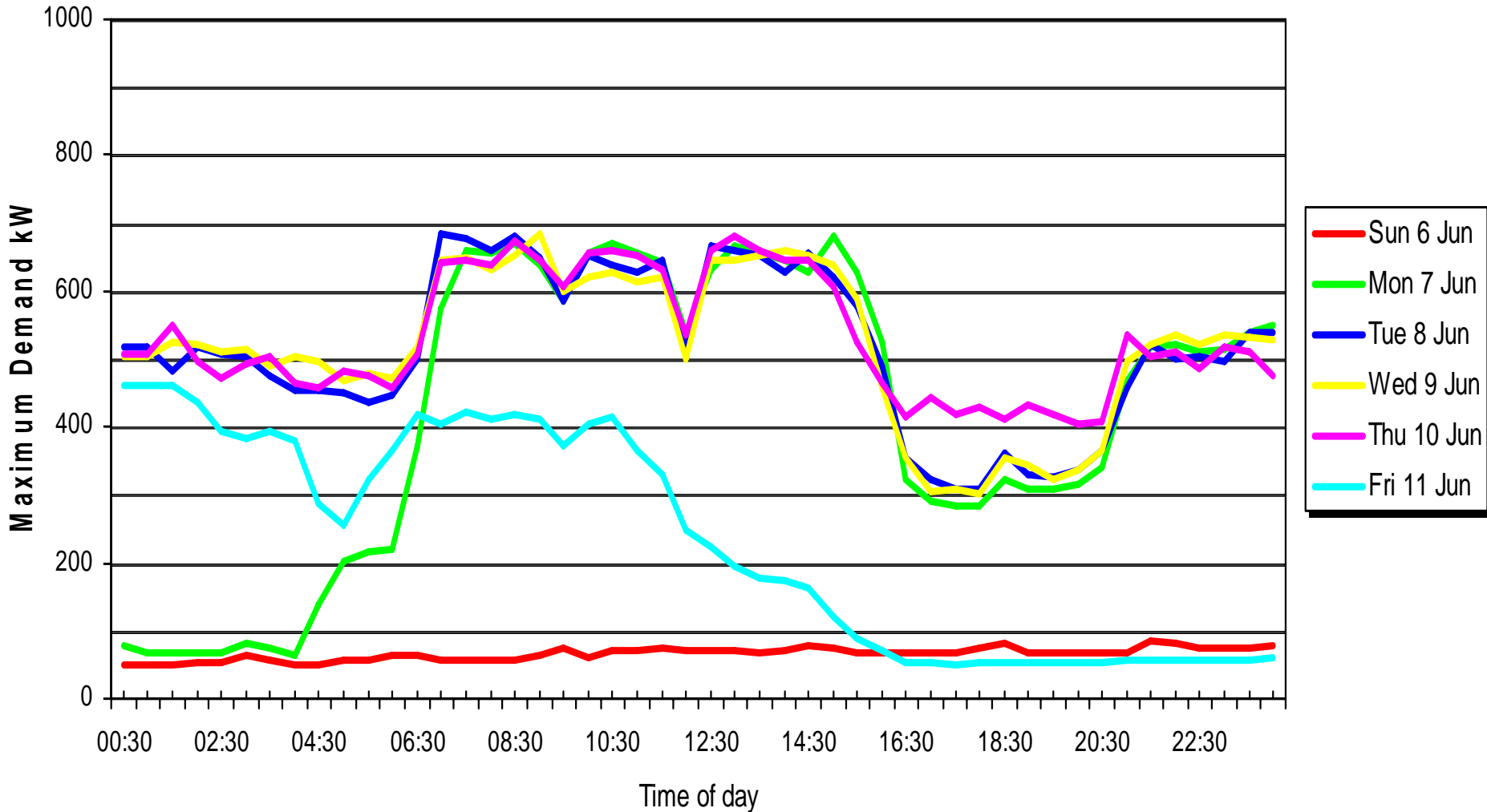
- Why is it this way up?



Sustainable energy hierarchy - what does this mean?



Half hourly data is a powerful tool



Switch it off

- Colour coded light switches
- CCCC for plastic injection moulding machines
- Auto-shutdown for bottle filling machines

Energy Efficiency in action

- Sir Matt Busby Sports Centre, Bellshill



- Replacement of life expired lighting with modern equivalents and controls
- Upgrading of control of heating system using BEMS
- Economics
 - Investment £55,000
 - Scottish Executive CEEF funding
 - Savings £39,000 per year
 - 350 tCO₂ per year
- Business benefits
 - Reduced cost
 - Improved ambience
 - Reduced demands on staff
 - Replicable



Accreditation



working with
the Carbon Trust



The Carbon Trust has tools to help you!



➤ **Self-help**

- Online tools
- Publications & case studies
- Help-line

➤ **Face to face support**

- Carbon Management
- On-site energy surveys
- Design Advice
- Interest-free loans
- Technical training events

➤ **Accreditation**

- Carbon Trust Standard
- Carbon label Company

2007/8 Scottish result

- Worked with 450 clients
- Estimated impact
186-277 ktCO₂/yr
- Value £20-29m

www.carbontrust.co.uk

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Making Business Sense of Climate Change

