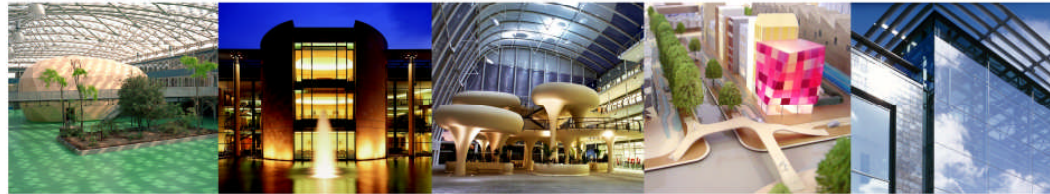


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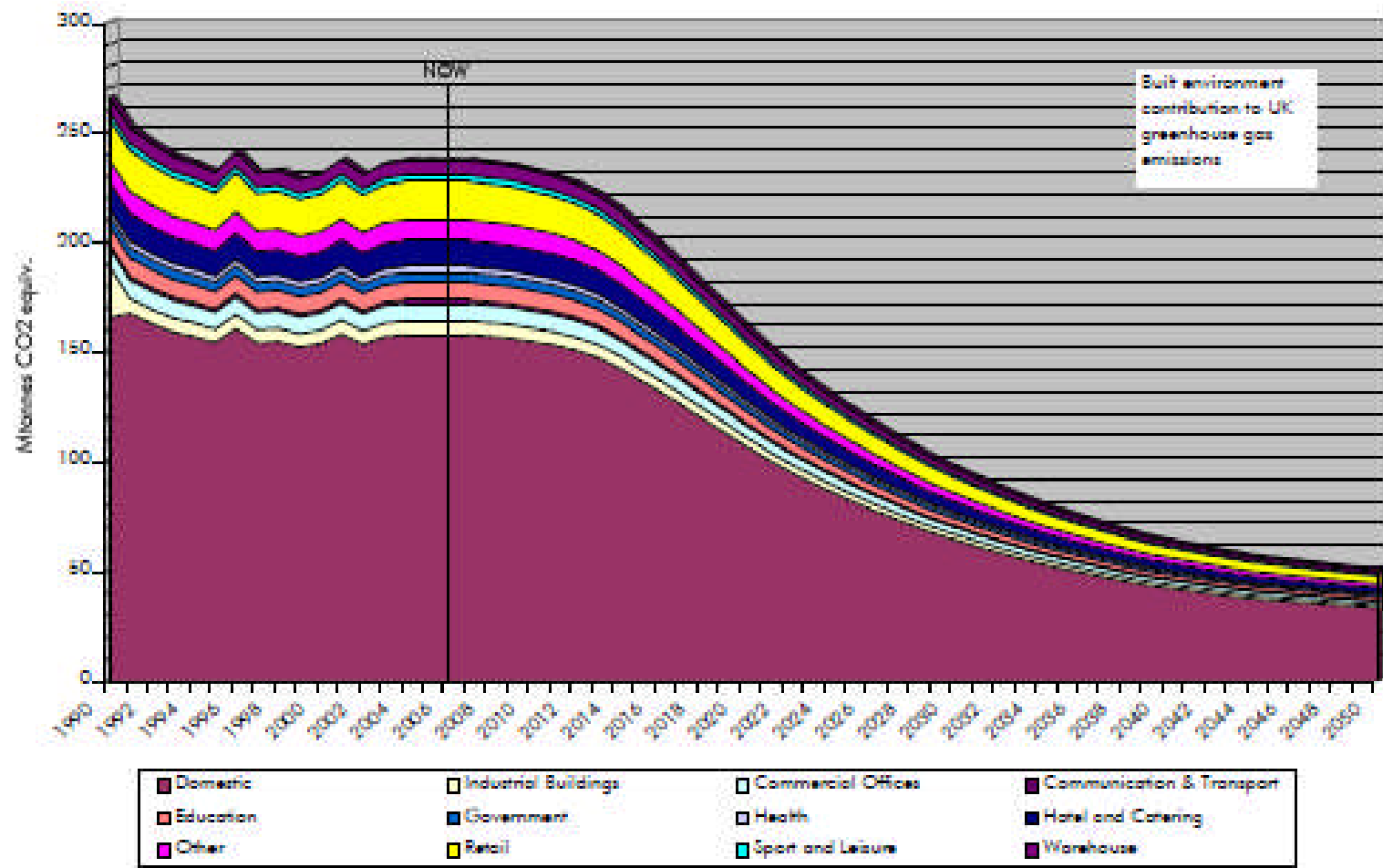


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**Andy Ford
Vice President
CIBSE**

Zero Carbon Creating a business Case

- Why
- What needs to happen by when
- Does Zero Carbon help



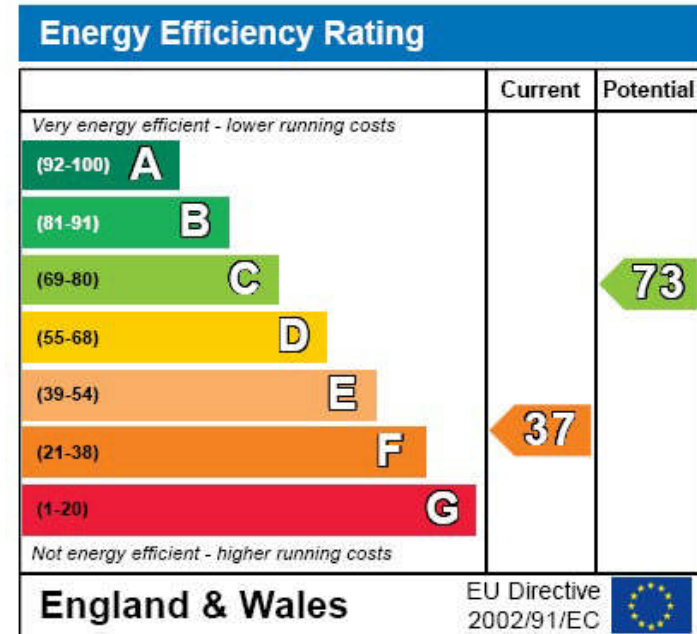
The problem of existing building stock

- At a conventional rate of building replacement in the UK, it would take hundreds of year to replace all buildings with those that meet stringent new Building Regulations introduced in 2006.
- The targets for major reductions in emissions are in the 30 to 40 year range at present, and may get shorter if global warming effects become more marked.
- The option of overcladding would be suitable for many buildings, but many of our cities are defined by their architecture and overcladding would destroy the heritage.



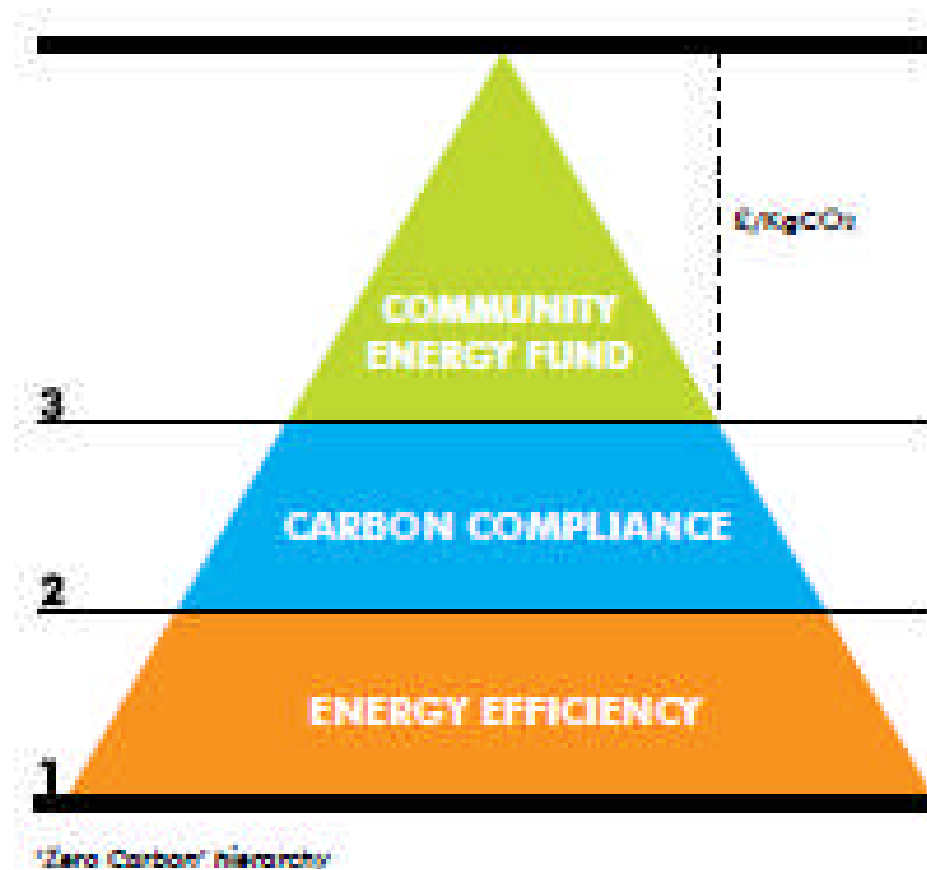
DEC

- A3 poster (to be displayed publicly)
- Building type
- Current rating
 - Value shown against standard graphic
- Progress over last 3 years
- Administrative information as before
- Reference to Advisory Report
- Reference to report containing additional technical details



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills will be.

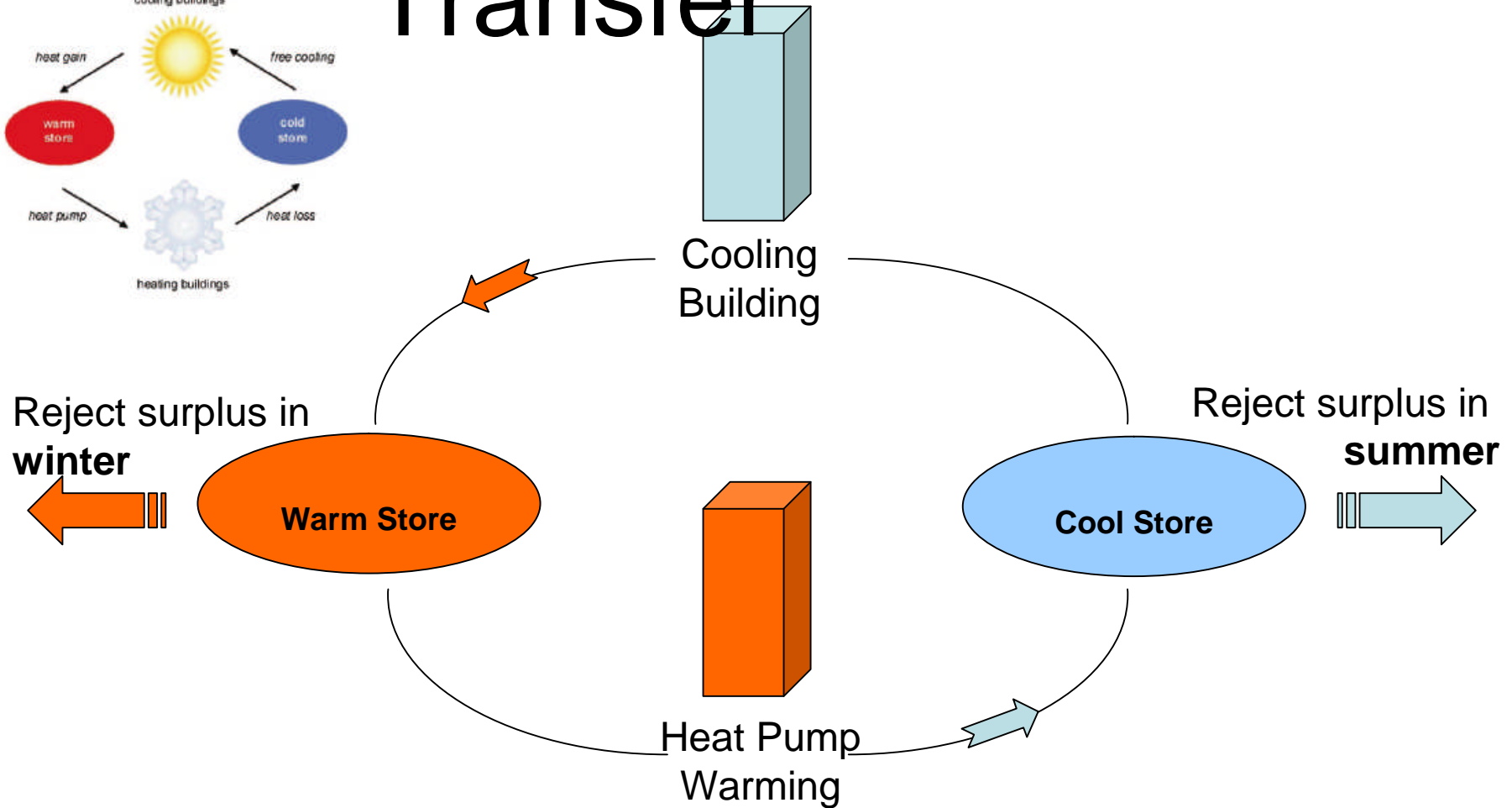
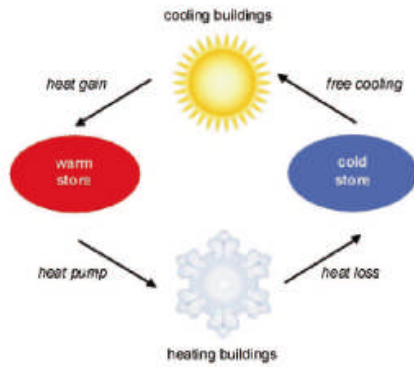
Fulcrum Dream Definition



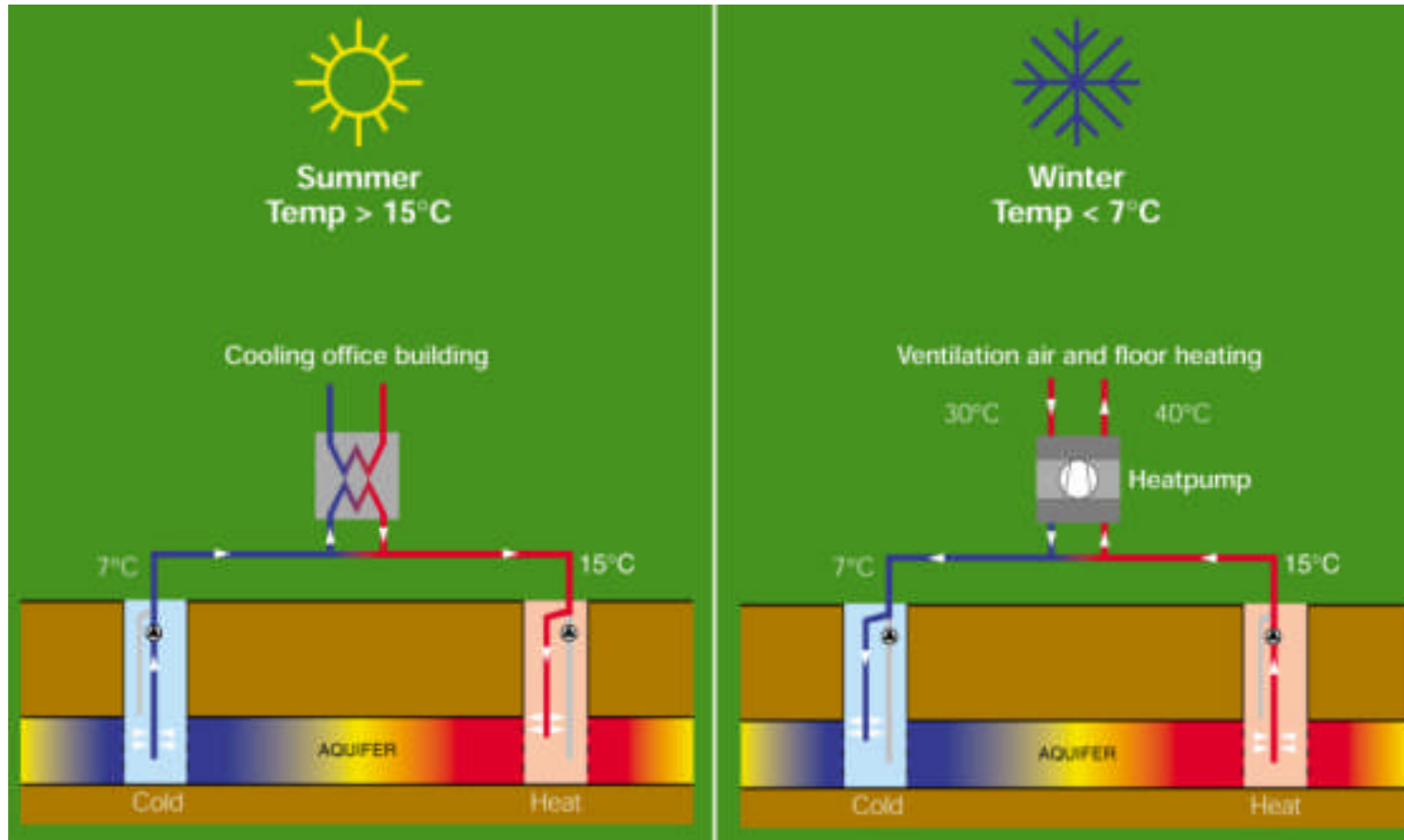
So what should we do

- Start building a heat infrastructure
- Find ways of funding community energy centres
- Seek ways to engage energy companies with property companies
- Investigate how non domestic development might benefit existing housing

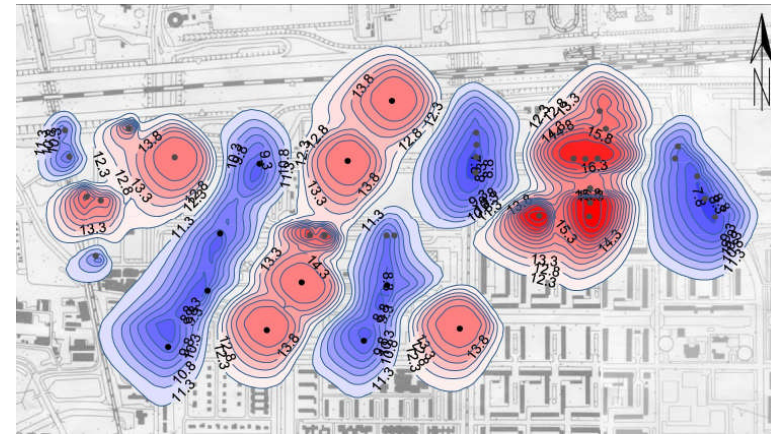
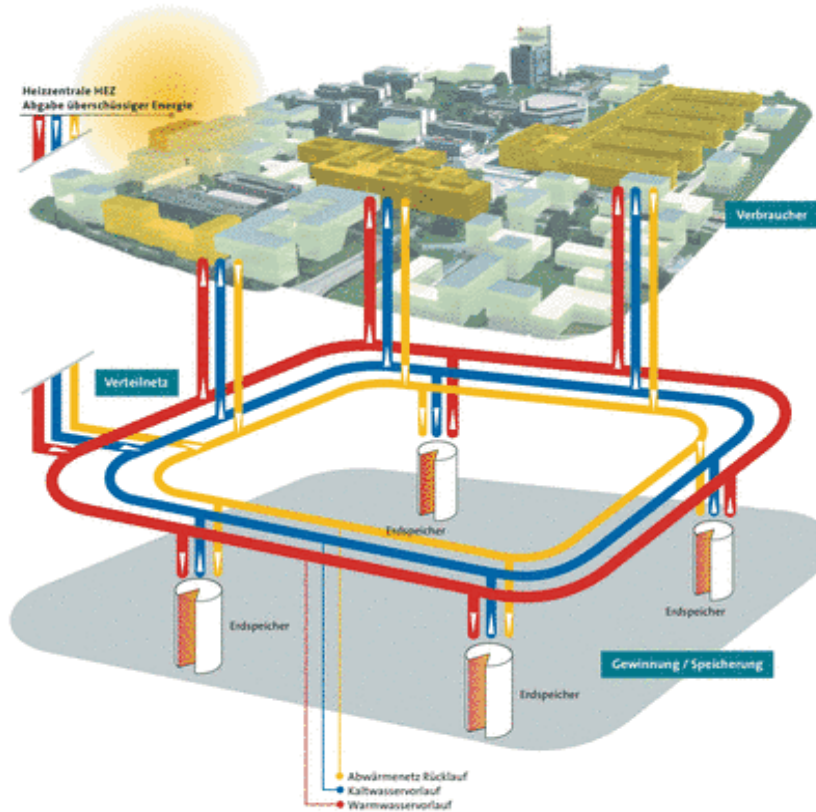
Interseasonal Heat Transfer



Aquifer Thermal Energy Storage ATES



City sized ring mains



Thank you

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