

BRITAIN'S UNTAPPED HEAT SOURCE. A MISSED OPPORTUNITY?



HEATING OUR CITIES FROM
COMBINED HEAT AND POWER

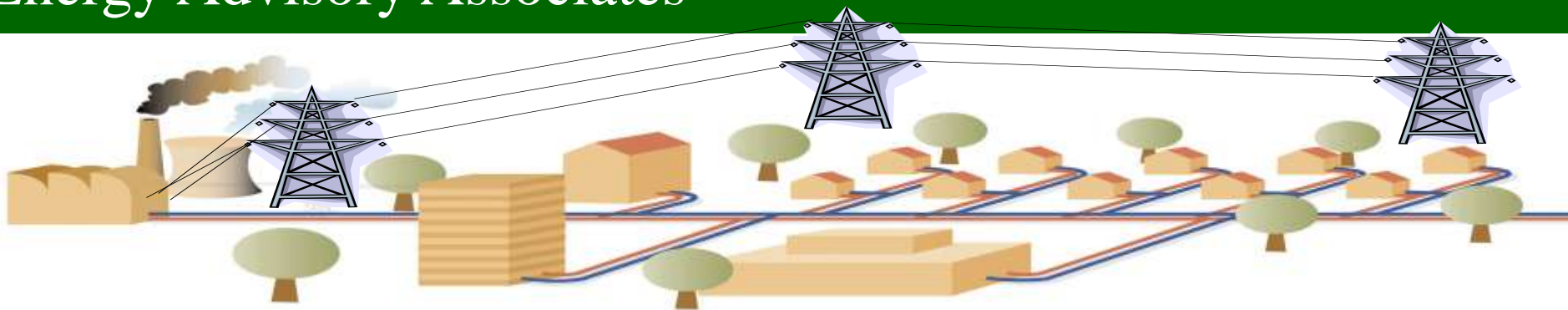
The Role of heat networks in delivering the 2050 carbon dioxide targets - Can you really trust your models?



Ecostiler 2012.

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Heat Mains Lengths in UK Cities

- So far, a small and a large city studied: Oxford and Birmingham.
- Work focussed on the lowest-density suburbs. Many higher-density areas of the UK have been examined at length before.
- Mainly districts of detached houses. Occasional semi-detached houses and other buildings; e.g., schools.

Comparison with Danish Cities

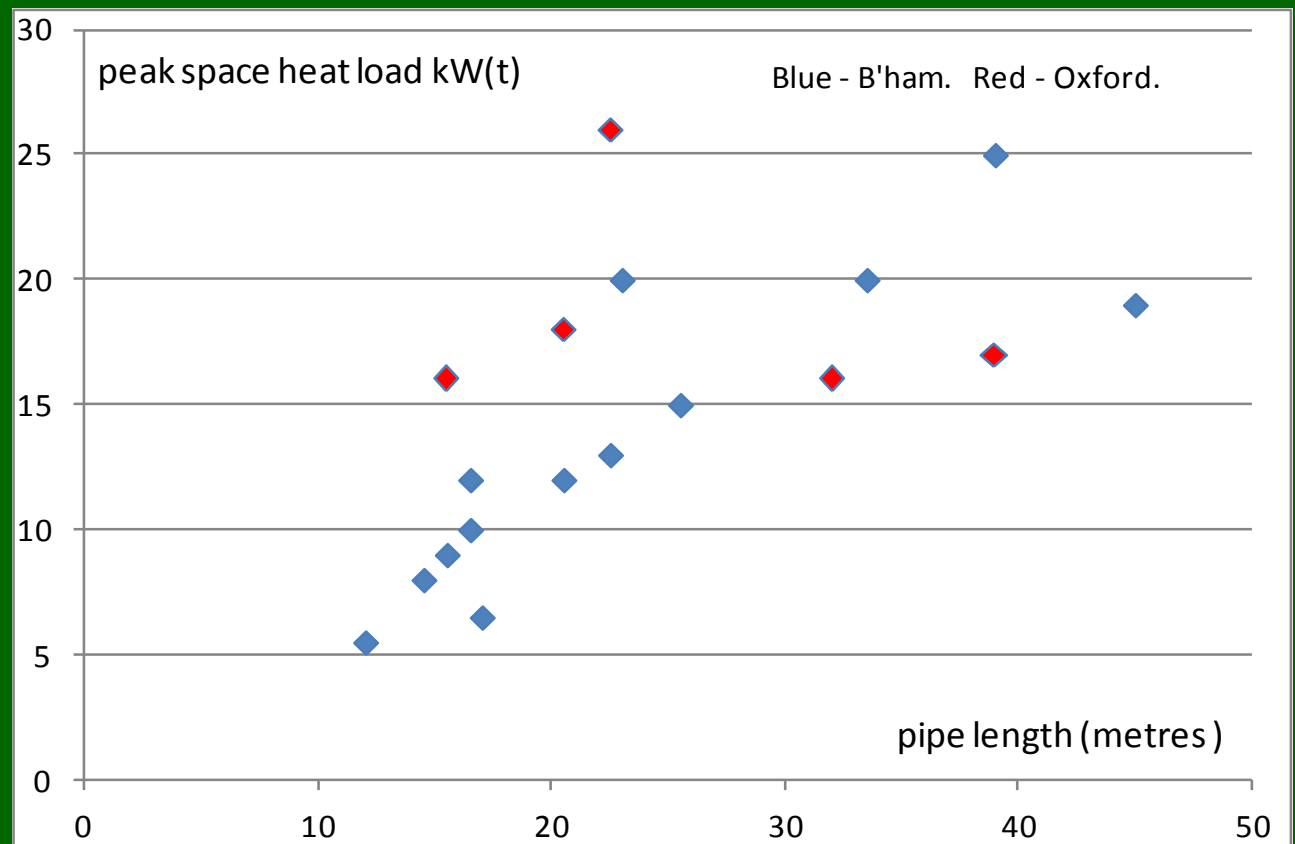
- Layout of Danish suburbs differs from UK cities studied
- L: UK suburb at a net density of 10 dw/ha (Oxford). R: Danish suburb at 10 dw/ha (Odense).
- L: Pipe length ~ 25 m/dwelling. R: ~ 50 m/dwelling.



Heat Loads Versus Pipe Length

For the UK cities.

Before correcting
for corner plots,
side roads,
undeveloped
areas, etc.



Case Study – Roupell Park, London SW2

Submission to Technology Strategy Board, Retrofit for the Future.

Low-CO₂ Heat, Very Energy-Efficient Electrical Appliances and Lighting and Affordable Retrofit Insulation, etc Projected to Reduce GHG Emissions by 82%.

No Decarbonisation of the Electricity System Assumed in Arriving at This Result.

