

VATTENFALL





Decarbonising Heat echelon Conference

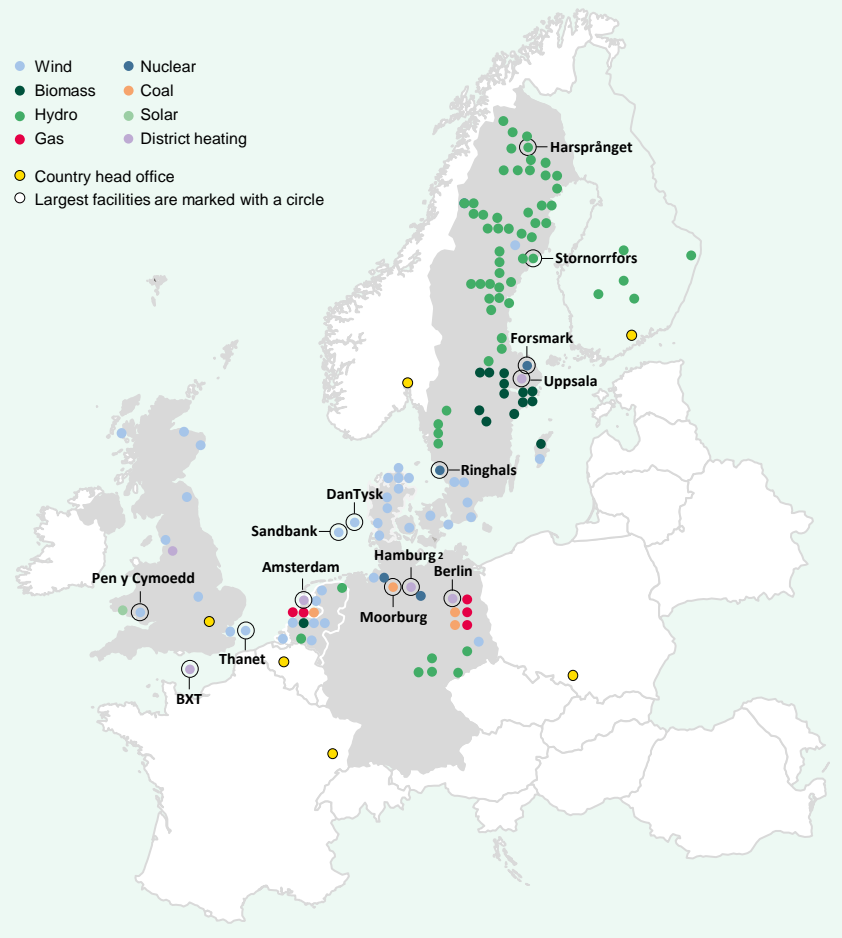
Alastair Thorpe
Account Director

WE EXIST TO ENABLE FOSSIL FUEL FREE LIVING WITHIN ONE GENERATION



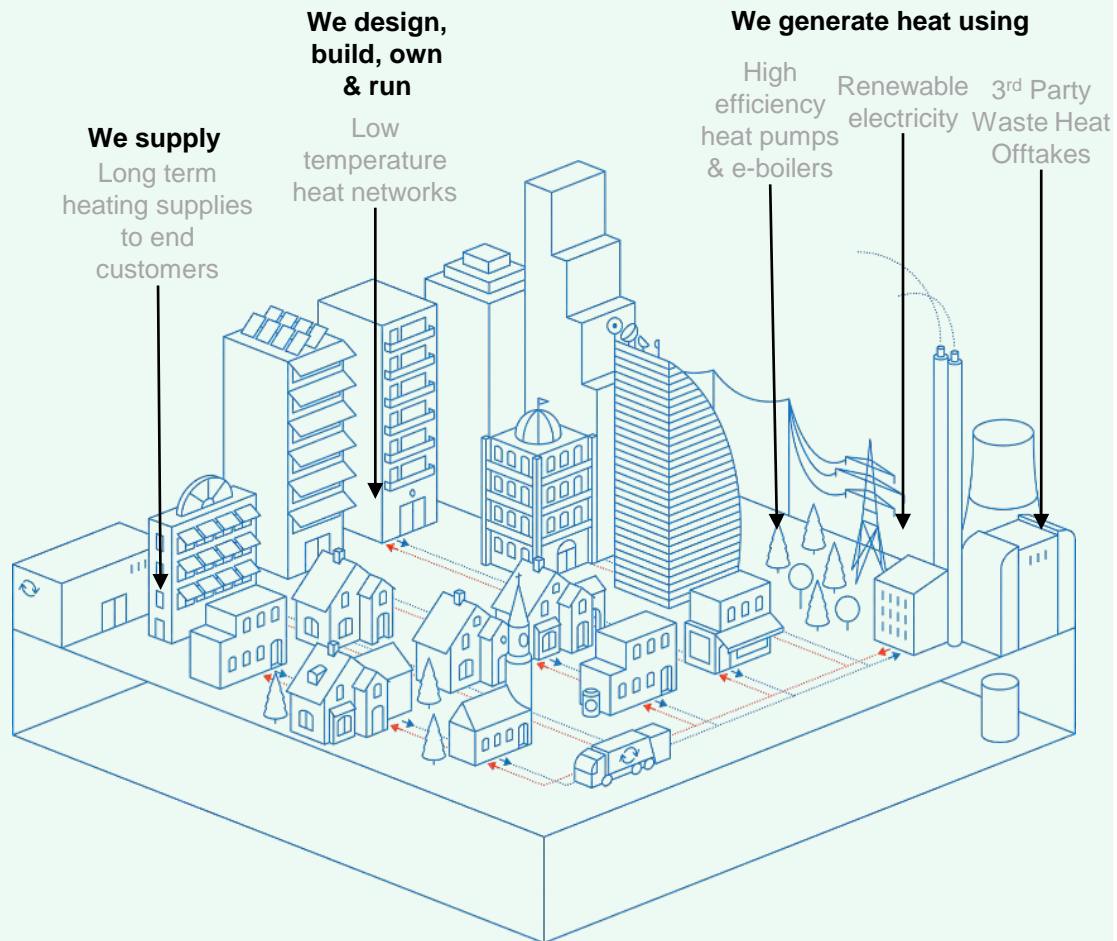
Vattenfall's mission statement is to enable fossil fuel free living within one generation

- One of Europe's largest producers of electricity and heat;
- 100% owned by the Swedish state;
- Main products: electricity, heat, gas and energy services;
- Main markets: Sweden, UK, Germany, Netherlands and Denmark
- About 22k employees, 4k in our Heat Business;
- Heat networks (2m customers)
 - Uppsala (Sweden): 200,000 customers;
 - Berlin: 1.2 million customers;
 - Amsterdam: 180,000 customers.

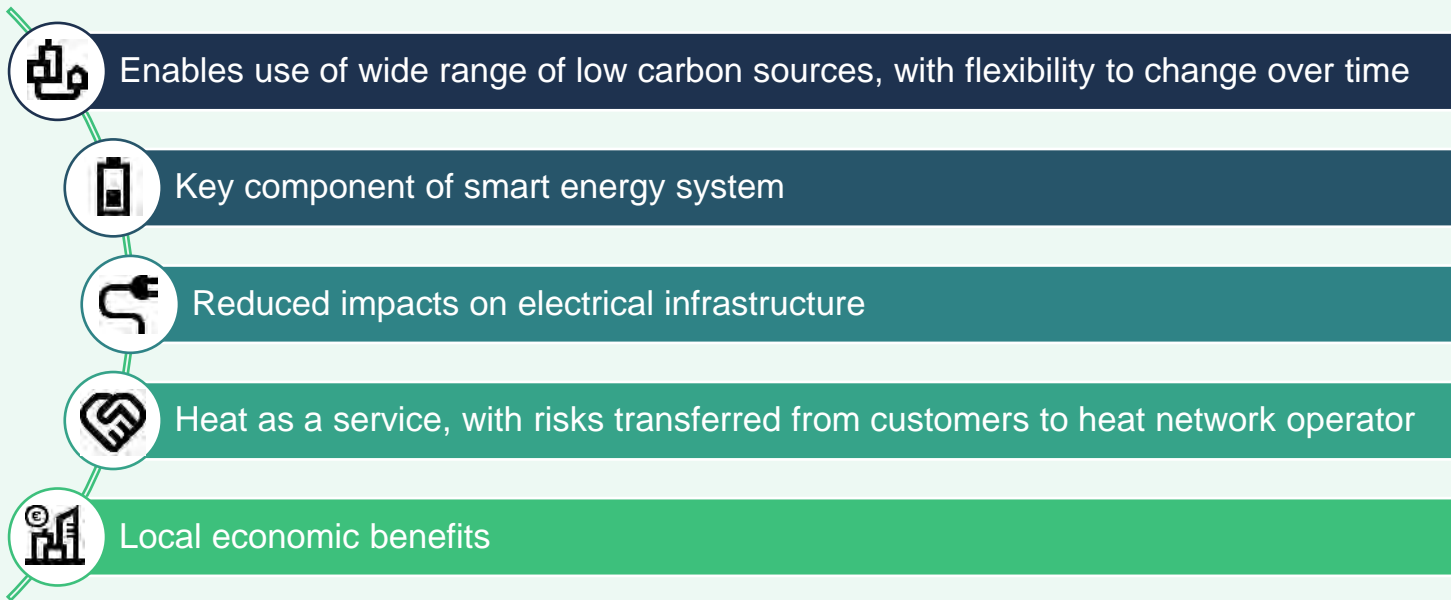


<https://heat.vattenfall.co.uk/our-experience>

Vattenfall heat UK



The role of heat networks in building net zero cities



Our Technical Experience - Uppsala

- The Uppsala heat network is a joint venture between Vattenfall and the city of Uppsala. The network has grown to serve 96% of the 200,000 citizens.
- The network uses a number of heat sources, including 3x 15MW heat pumps that use the waste water treatment plant (WWTP) as a heat source. This system has been in operation since 1982.
- These heat pumps inject 60GWh of heat into the network annually, and contribute to lowering the carbon content of the heat. This meets around 5% of the total annual heat demand.
- Environmentally, the heat pumps help to lower the release of local air pollutants and reduce the temperature of the waste water as it is released back into the water course.
- Commercially, Vattenfall pays an annual fixed fee to the WWTP. Vattenfall owns all equipment related to offtake, generation, distribution and thermal storage.

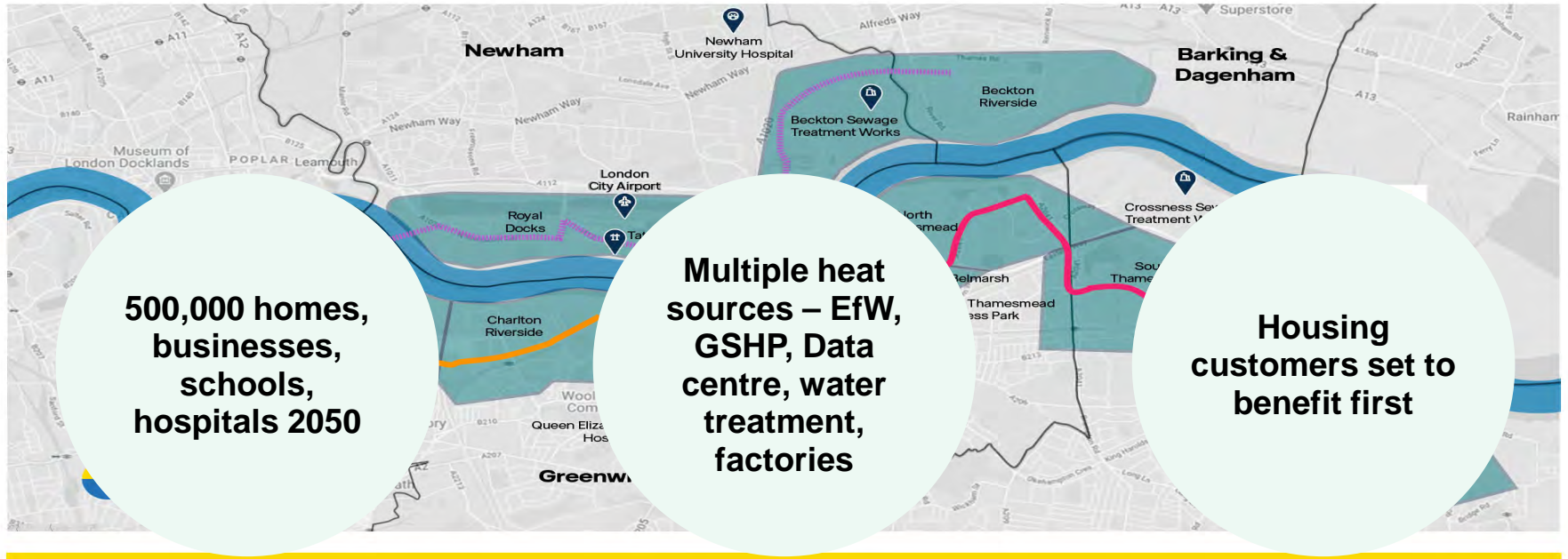


We are building

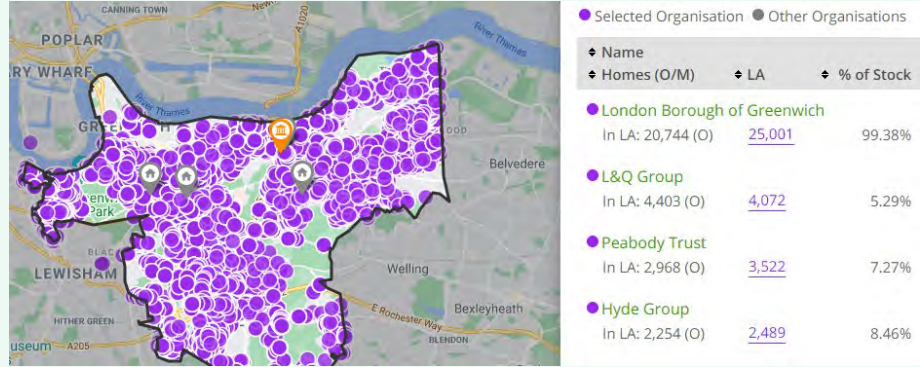
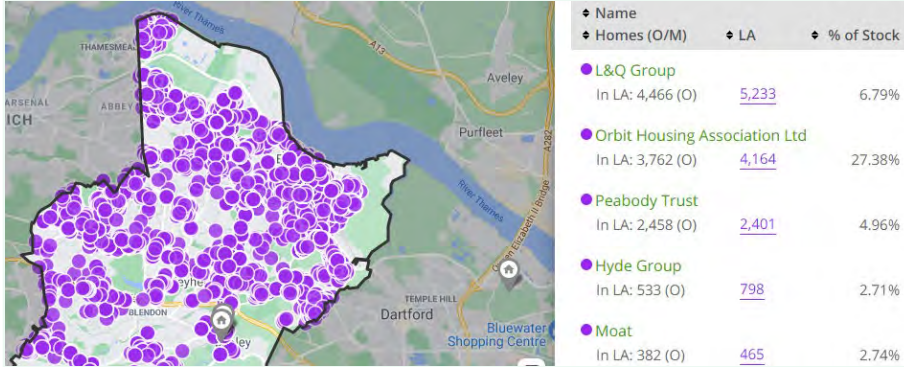


Images from Brent Cross South site: 25th January 2021

Provisional route of the network



Opportunity for decarbonisation of heat in housing at scale!



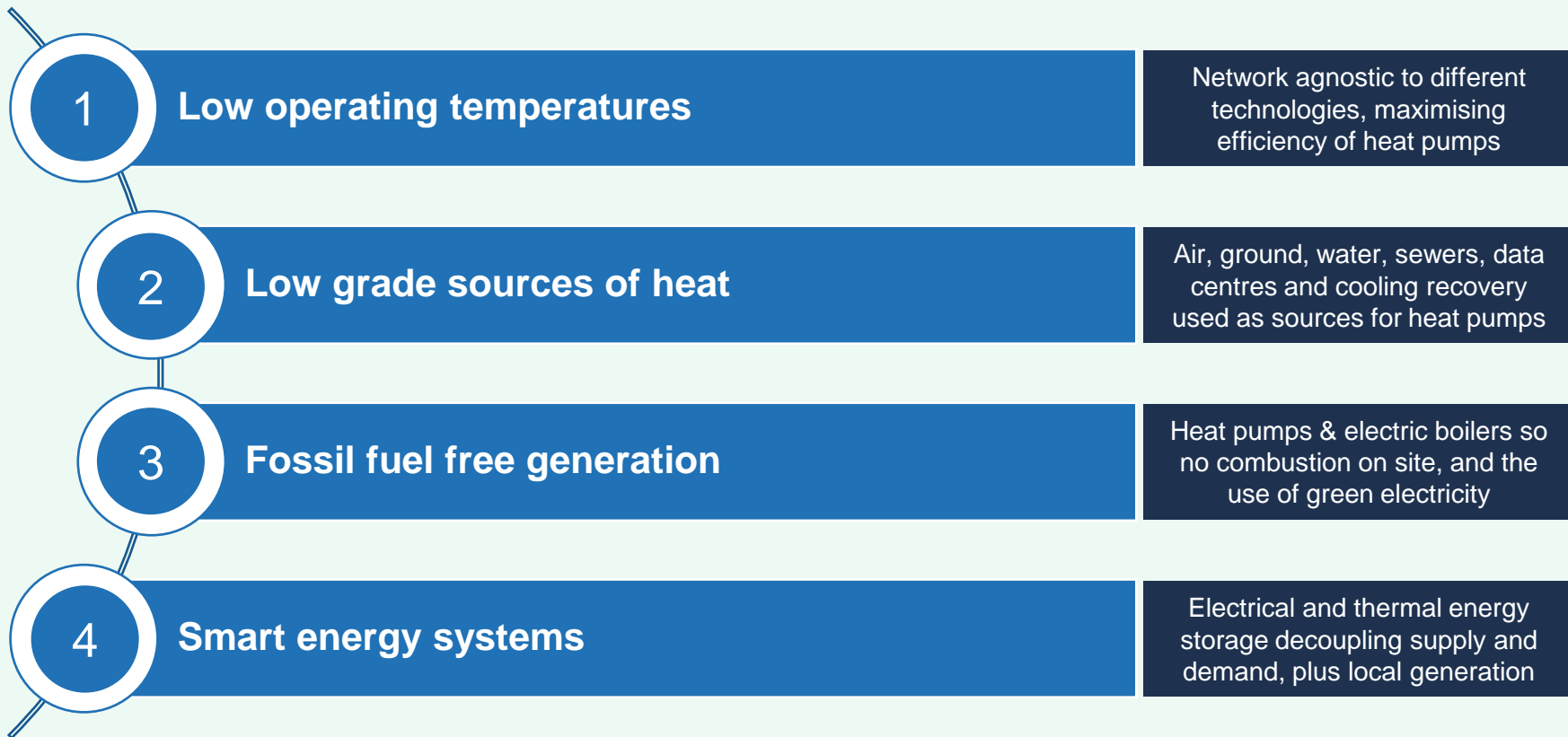
Bexley

- 14,500 social housing properties
- Planning commitments in place
- Opportunities for new build, existing portfolio decarbonisation

Greenwich

- 40,000 social housing properties
- Planning commitments in place
- Opportunities for new build, existing portfolio decarbonisation

Vattenfall's approach is commercially competitive



VATTENFALL 



Thank you

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