

VATTENFALL





**Decarbonising Heat
echelon Conference**

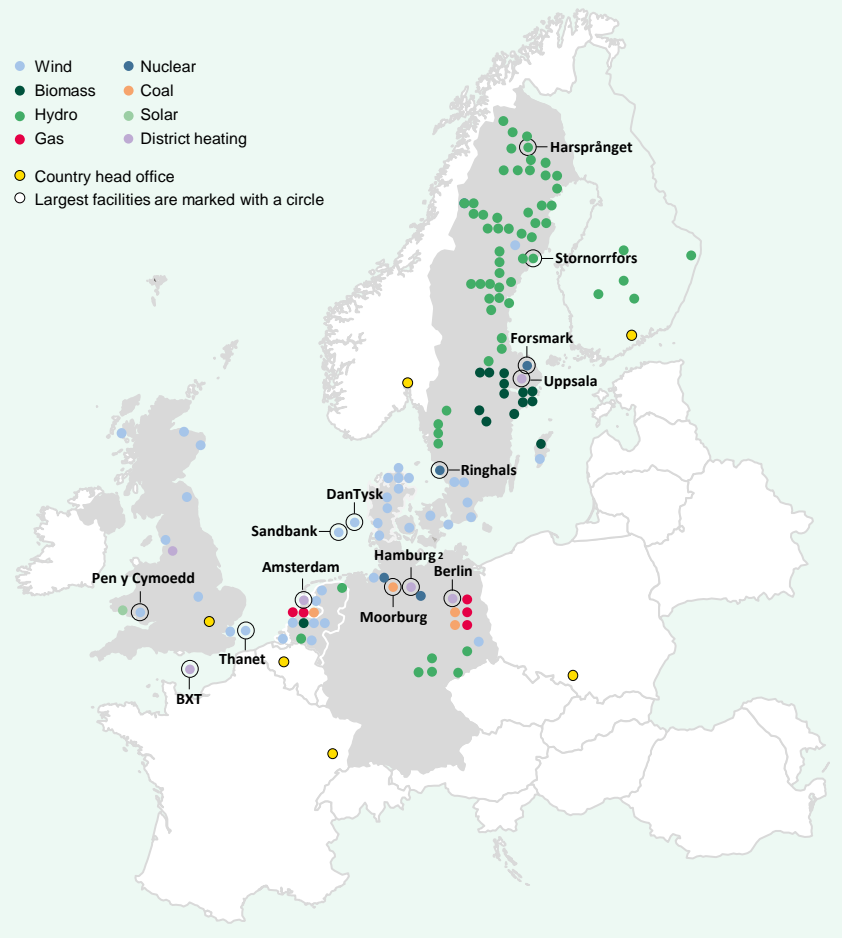
Alastair Thorpe
Account Director

WE EXIST TO ENABLE FOSSIL FUEL FREE LIVING WITHIN ONE GENERATION

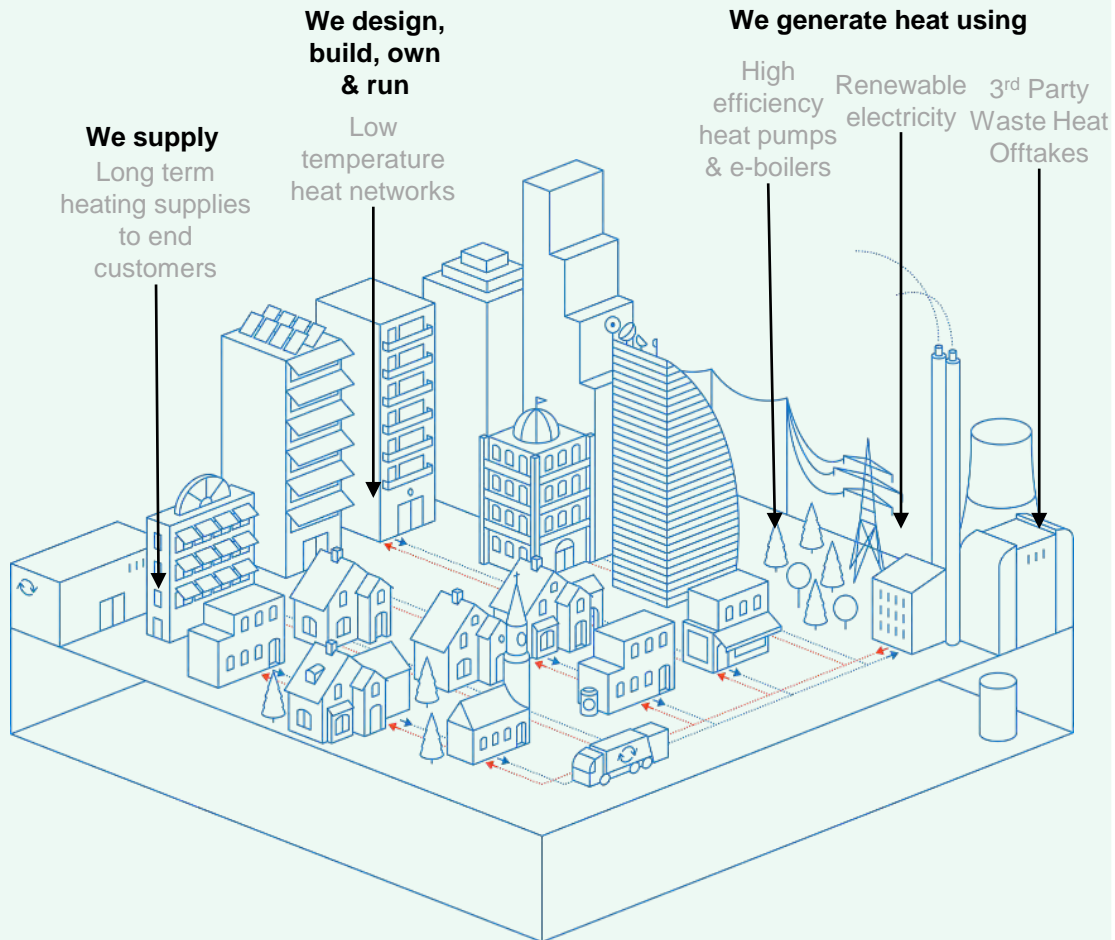


Vattenfall's mission statement is to enable fossil fuel free living within one generation

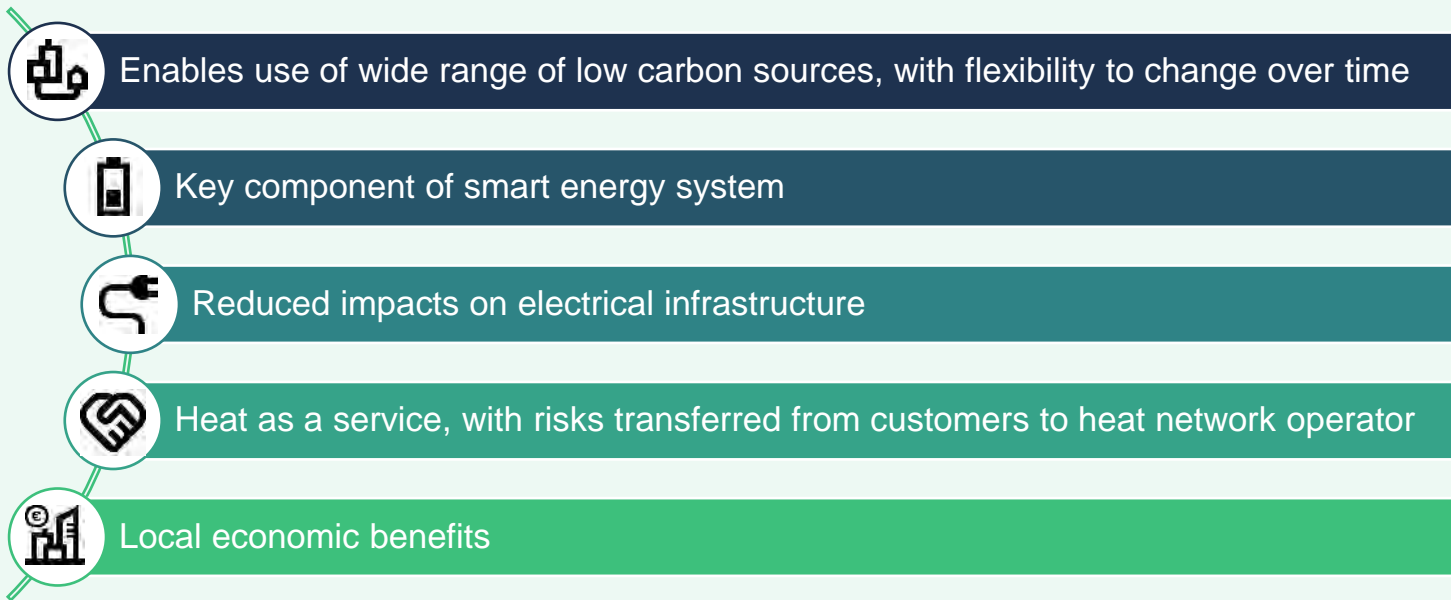
- One of Europe's largest producers of electricity and heat;
- 100% owned by the Swedish state;
- Main products: electricity, heat, gas and energy services;
- Main markets: Sweden, UK, Germany, Netherlands and Denmark
- About 22k employees, 4k in our Heat Business;
- Heat networks (2m customers)
 - Uppsala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



Vattenfall heat UK



The role of heat networks in building net zero cities

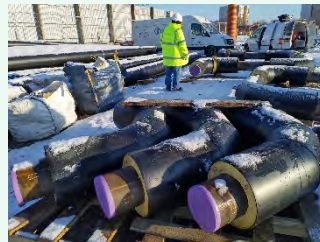


Our Technical Experience - Uppsala

- 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.

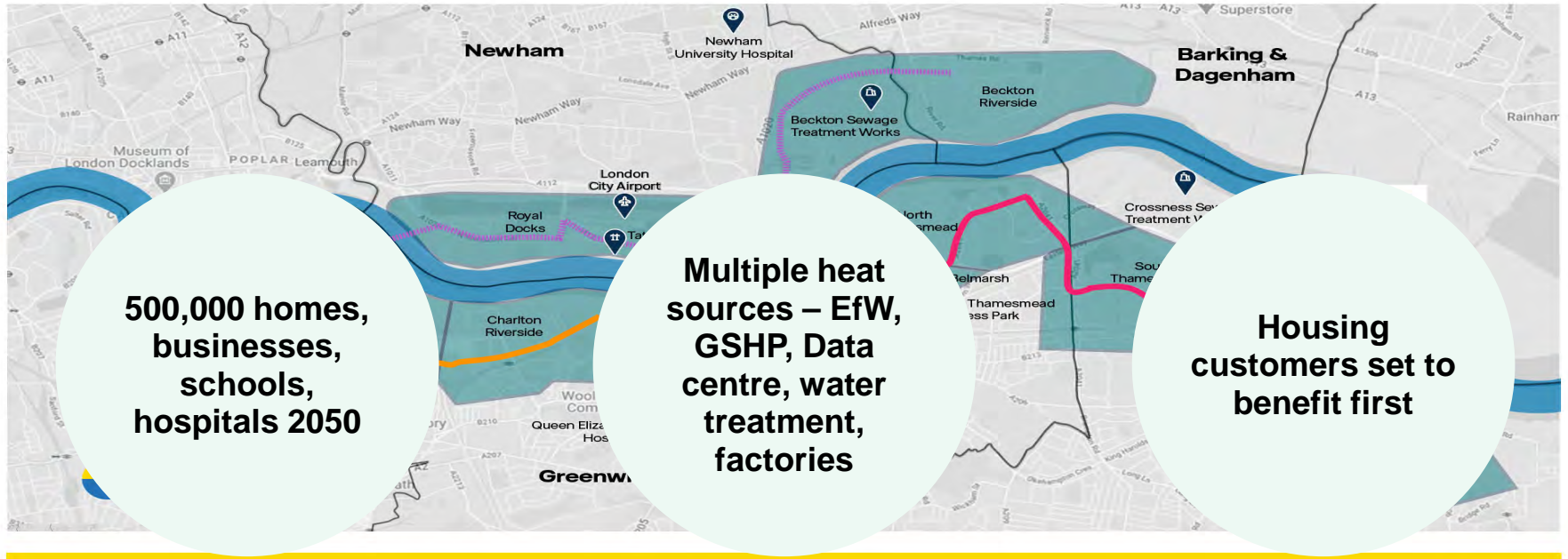


We are building



Images from Brent Cross South site: 25th January 2021

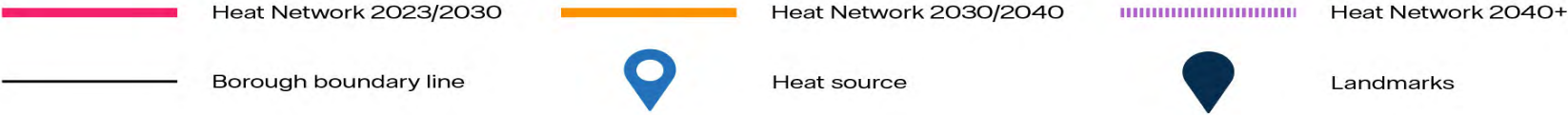
Provisional route of the network



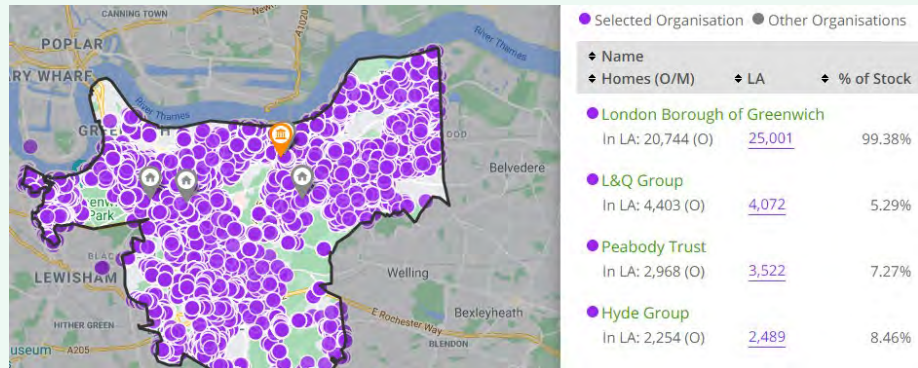
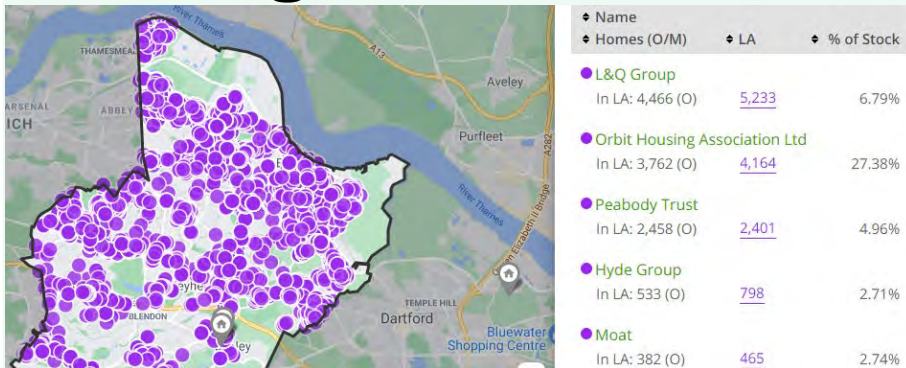
500,000 homes, businesses, schools, hospitals 2050

Multiple heat sources – EfW, GSHP, Data centre, water treatment, factories

Housing customers set to benefit first



Opportunity for decarbonisation of heat in housing at scale!



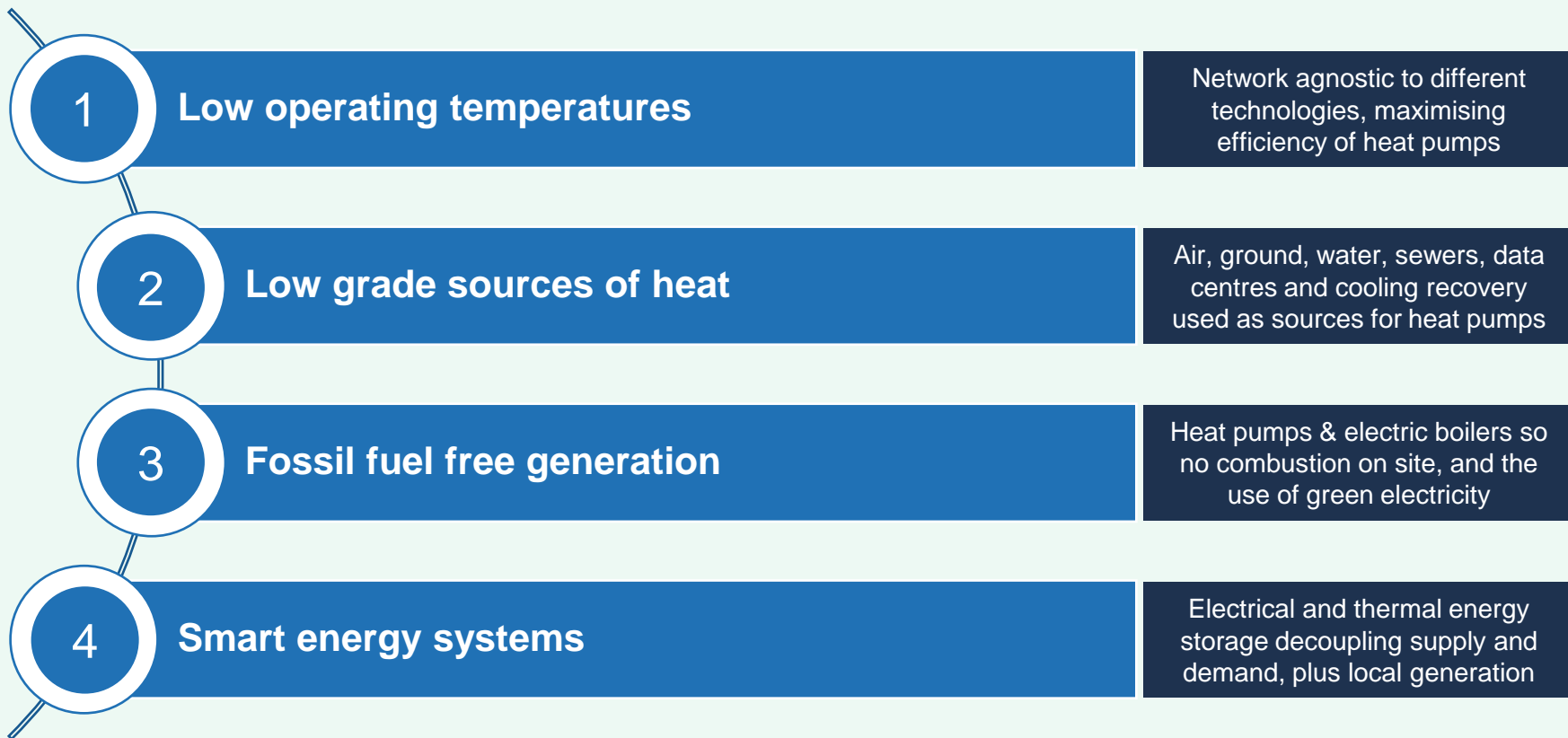
Bexley

- 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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Account Director

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