## Ramboll in the UK Bloomsbury Heat and Power

Lucy Padfield Director 27 April 2022



## Our approach

#### **Sustainable Society consultant**

We partner with our clients to create sustainable societies where people and nature flourish, delivering enduring structures, resource-efficient solutions and socially cohesive communities for today and tomorrow.

#### **Multi-disciplinary services**

Bringing together expertise from across our business, we bring a multitude of experience to deliver on the climate imperative and create value and long term performance.

#### Innovation

Our ability to develop and combine knowledge and technology and utilise it in new and different ways, creates synergies and dynamics and better results for our clients.

#### **Buildings**



Kings Cross Central – design & engineering across 15 sites

#### Environment & Health



Network Rail – sustainability advice

#### Energy



Clyde Gateway - regen scheme energy strategy

#### **Transport**



Dún Laoghaire-Rathdown County Ireland – active travel post Covid19

### Geographical footprint



## Energy

- 50 years of experience in planning, design and implementation of energy solutions
- Expertise on full spectrum of technologies
- 15% of Group revenue
- 1,600 energy specialists
- 64 offices in 15 countries (1,300 in total in the UK



### District energy

50 years of experience in planning, design and implementation of energy solutions

Ramboll has provided consultancy services to more than 200 district heating systems worldwide, ranging from small village schemes to city wide transmission networks.

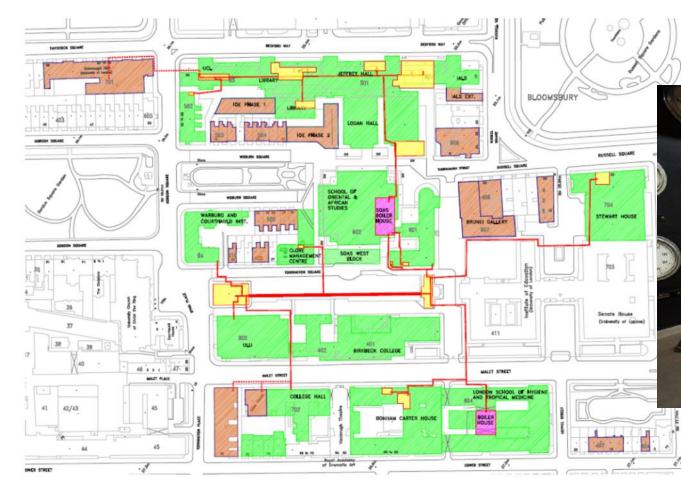


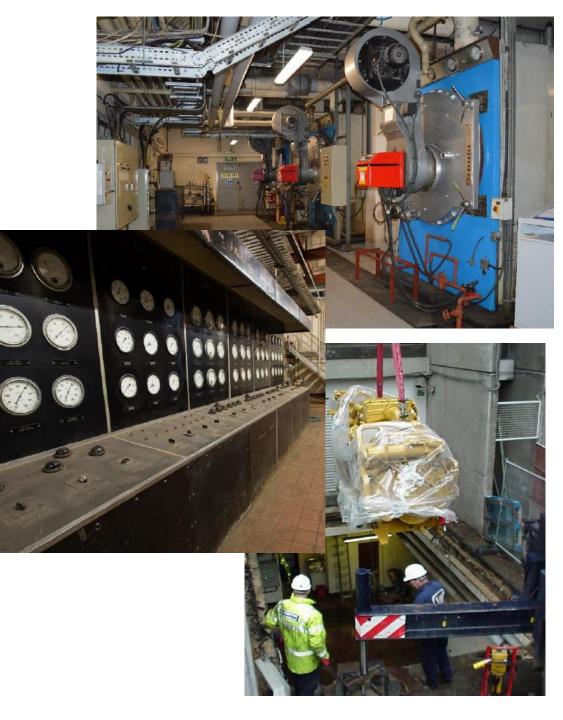
## **Bloomsbury Heat and Power Refurbishment**

- The Bloomsbury Heat and Power Consortium (BHPC): University of London (UoL) and three of its independent institutions - School of Oriental and African Studies (SOAS), Birkbeck and University College London (UCL). Formed in 1996 to oversee the development of heat and power infrastructure across the southern half of the Bloomsbury campus in central London.
- Aged plant including 50-year old gas and oilfired boilers and distribution pipework some of which is over 80 years old.
- 4.45MW projected peak heat demand.
- Net Zero commitments

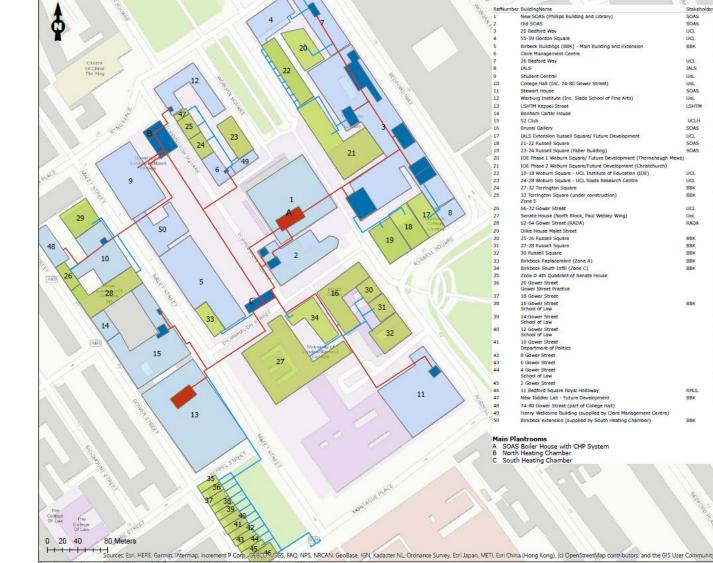


# Bloomsbury Heat and Power – current network

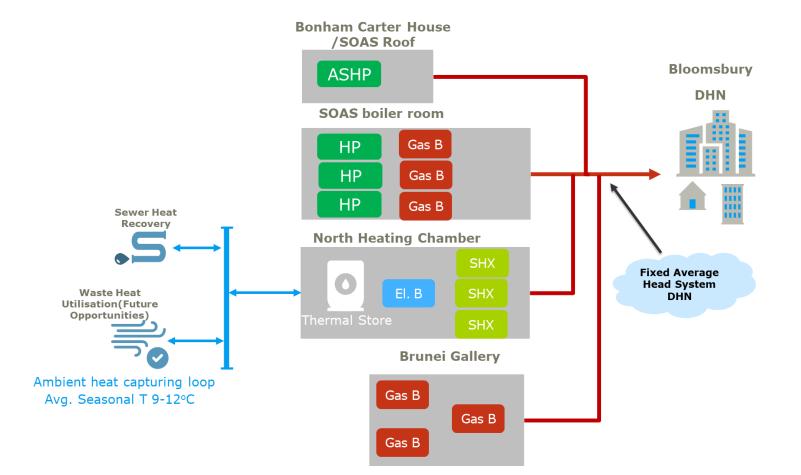




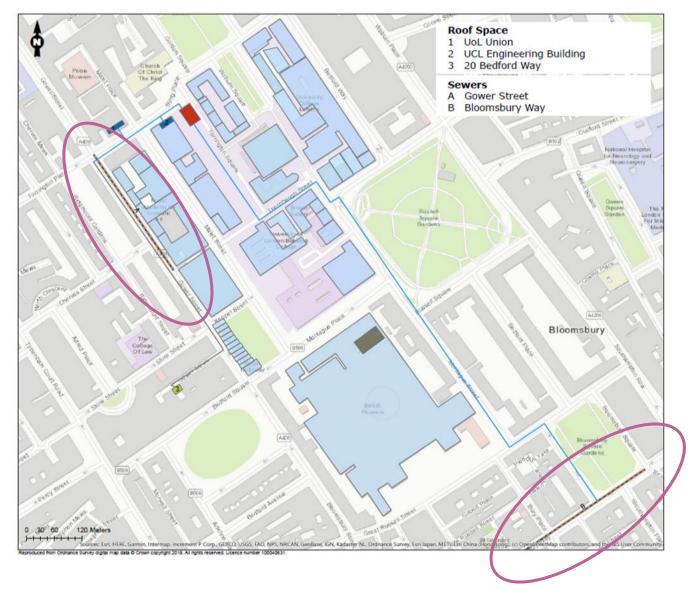
#### Bloomsbury Heat and Power – current & expanded network



## Bloomsbury Heat and Power – proposed schematic



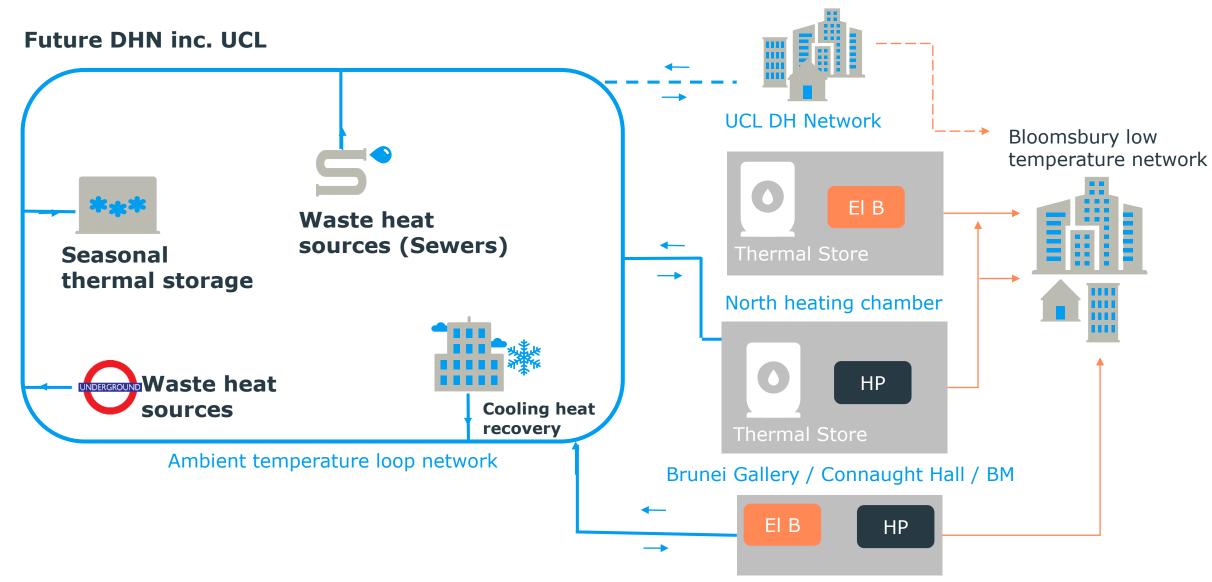
#### Bloomsbury Heat and Power – sewer heat sources



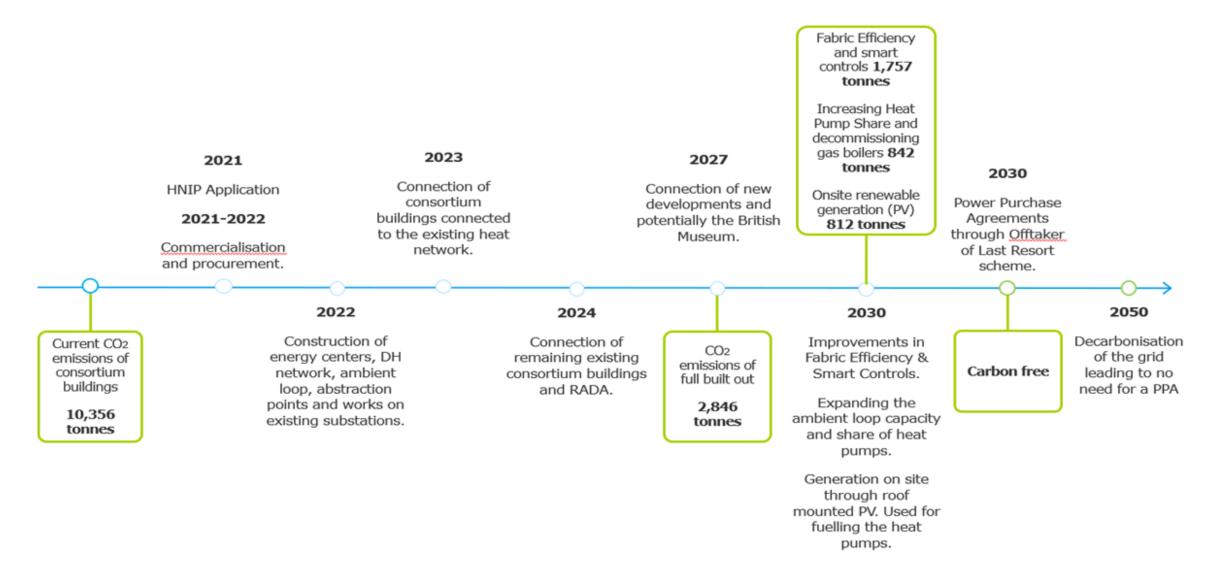
### Bloomsbury Heat and Power – carbon savings

	Unit	up to Year 5	up to Year 25	up to Year 40
CO2e Emissions	tonnes of CO2	8,639	25,888	33,756
CO2e Savings	tonnes of CO2	26,402	153,319	252,458
Percentage CO2e Reduction	%	75%	86%	88%

## **Future Decarbonisation**



## Bloomsbury Heat and Power – indicative route to decarbonisation



Bright ideas. Sustainable change.

