

## Built Environment Special Interest Group

**Energy Master Planning for  
Heritage Sites - Common  
Challenges and Opportunities**  
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### Panel

**Ruchi Choudhry (Chair)**, Professor,  
Architectural Engineering,  
University of Cambridge

**Christian Brady**, Team Lead, Greater  
Cambridge Shared Planning

**Venus Tam**, Net Zero Associate, UK  
Power Networks

**Emma Davies**, Principal  
Sustainability Officer, Greater  
Cambridge Shared Planning

**Rapporteur: Chaoqun Zhuang**

**For more information, contact**  
[decarbnetwork@admin.cam.ac.uk](mailto:decarbnetwork@admin.cam.ac.uk)

### Challenges

- Integration of heat networks with the UK power network, especially in areas with heritage buildings and complex local planning scenarios.
- Difficulty in coordinating actions across privately owned and protected lands within strategic planning.
- The financial burden due to charges for local electrical upgrades can deter stakeholders from adopting necessary changes for decarbonisation.
- Concerns regarding the installation of heat pipes under highways, creating potential maintenance burdens.

### Discussion Points

- Utilizing planning policies strategically can foster the development of heat networks in urban centres. Establishing specific zones where new developments are required to connect to planned or existing heat networks enhances the integration and effectiveness of these systems.
- Local area energy plans serve as a vital tool for municipalities to understand energy consumption patterns, forecast future energy needs, and plan infrastructure investments accordingly.
- Retrofitting heritage buildings presents unique challenges due to their structural peculiarities and historical value. It also offers opportunities to preserve cultural heritage while improving energy efficiency. Developing cost models that consider the life cycle and embodied carbon impacts to make retrofitting financially viable and sustainable.
- Exploring different types of heat networks (ambient versus higher temperature) and their implications for planning and implementation was a key topic. Feasibility studies and financial models are necessary to understand the potential impacts and benefits of each system type on urban infrastructure.
- The need for flexibility in planning to accommodate various technological solutions and innovations, such as thermal storage. This can lead to more efficient energy use, reduce peak load demands, and decrease the necessity for extensive infrastructure upgrades.
- The significance of collaborative efforts between local governments, universities, industry, and heritage specialists. This interdisciplinary approach is essential to address the complex challenges of decarbonizing historic environments.
- Policy recommendations, such as reducing VAT on retrofit projects to align with new construction, to encourage more sustainable practices and make energy efficiency projects more financially attractive.

### Opportunities

- Current policies and new planning initiatives that facilitate the development of city-centre heat networks, providing a supportive framework for future projects.
- Utilization of tools and open data portal to provide data support and facilitate local energy planning.
- The potential for widespread community engagement and educational opportunities from the existing retrofit projects to increase awareness and support for decarbonisation efforts.

