Energy Innovation Basecamp 2026
Problem Statement EIP168

Decarbonising opportunities for multi-occupancy buildings (MOBs)

The following problem statement has been developed by the innovation teams within the UK's Gas and Electricity Networks for the 2026 Energy Innovation Basecamp.

Theme: Net zero and the energy system transition

Network Areas: Gas Distribution, Electricity Distribution and Electricity System Operator

What is the problem?

Multi-occupant buildings (e.g., flats, apartments, mixed-use developments) face significant challenges in reducing carbon emissions due to shared heating systems, diverse energy needs, and split incentives between landlords and tenants. Current solutions often focus on single-family homes, leaving a gap for scalable approaches in multi-occupant settings.

In the UK energy networks are struggling to provide affordable and equitable options for MOBs to decarbonise. This stems from the high reinforcement needs per building, replacing gas with electrical heating will often increase the electrical load, necessitating upgrades for the internal and external network infrastructure. Often far costlier than single homes, the same goes for reinforcing existing gas assets in the building with some parts of the internal pipe work being more prone to require repairs than a standard single property. Another one of the big issues is the structure of the ownership for these types of buildings, with complex structures involving housing associations, private owned and rented accommodation as the most common. This causes issues when it comes to decision making but also for the cost sharing, with many buildings having a lack of maintenance due to difficulties in assigning responsible parties.

The UK's net-zero targets require rapid decarbonisation of heat and energy systems. Multi-occupant buildings represent a large proportion of urban housing stock and commercial spaces. Solutions must address technical, economic, and behavioural barriers while ensuring affordability and minimal disruption.

What are we looking for?

- Innovative technologies, business models, or operational strategies for decarbonising shared energy systems.
- TRL 3–5
- Solutions that can scale across different building types and regions.
- Approaches that integrate with existing infrastructure or enable hybrid systems (e.g., hydrogen-ready boilers, heat pumps, district heating).

What are the constraints?

- Solutions must comply with UK building and energy regulations.
- Cost-effective for landlords, tenants, GDNs, DNOs .
- Minimal disruption during installation.
- Compatible with existing metering and billing systems.

Who are the key players?

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Building owners, housing associations, energy shippers, technology providers, local authorities, DNOs, GDNs.

Does this problem statement build on existing or anticipated infrastructure, policy decisions, or previous innovation projects?

- Smarter Networks Portal – Heat Decarbonisation Projects
- Previous ENA projects on hybrid heating and shared energy systems.

What else do you need to know?

- Consider occupant engagement strategies.
- Highlight carbon savings and cost-benefit analysis.

Innovator submissions to this problem statement will be open on the Smarter Networks Portal from 4th February to the 13th March, but we encourage you to submit your response as early as possible, as networks will be able to review submissions as soon as they come in.

You can also use the virtual Q&A on the Smarter Networks Portal to ask for more information about this problem statement. Questions may be answered online or at the ENA Problem Statement Launch on 4th February 2026. More information on last year's Basecamp programme can be found on the Smarter Networks Portal.