Energy Innovation Basecamp 2026
Problem Statement EIP170

Asset Obsolescence

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: Maximising Use of Existing Infrastructure

Network Areas: Gas Distribution,

What is the problem?

Gas Distribution Networks operate large volumes of long-life, safety-critical equipment installed over many decades. A growing proportion of this asset base is now obsolete, unsupported by OEMs, or reliant on single-supplier or bespoke components.

Typical obsolescence issues across gas networks include regulators, slam-shut valves, pilots, actuators, filters, meters, heaters, E&I panels, telemetry units and kiosk components that are no longer manufactured or supported by OEMs.

Many of these assets rely on single-supplier spares, bespoke parts, or overseas refurbishment. As a result, otherwise serviceable assets are often repaired through limited spares or forced into premature replacement due to spares unavailability rather than asset condition.

What are we looking for?

Solutions may include (but are not limited to), which can be TRL 3–7, provided there is a credible pathway to network deployment.:

Digital & Data

- Network-wide obsolescence intelligence platforms.
- Digital part libraries with validated CAD models
- Cross-network spares visibility and interoperability
- New Asset Strategy & Decision Support that link asset condition, spares availability, risk and cost

Manufacturing & Repair

- Additive manufacturing (3D printing) for low-volume, safety-critical parts
- Rapid reverse-engineering of obsolete components that comply to standards
- Modular retrofit kits to extend asset life
- Certified local manufacturing approaches

Supply Chain Innovation

- New partnership models with SMEs, universities and manufacturers
- Distributed manufacturing for critical components

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- Reduced reliance on single-supplier or overseas sources

What are the constraints?

Any solution must:

- Maintain or enhance network safety and regulatory compliance
- Be suitable for safety-critical gas assets
- Integrate with existing asset management systems
- Be economically viable at low production volumes
- Be deployable within GB regulatory and assurance frameworks
- Avoid creating new single-supplier dependencies
- Be customer focused with implementation in mind

Who are the key players?

Network operators, potential innovators from advanced manufacturing, digital twin and asset data platforms, universities and applied research centres, materials science and reverse engineering specialists.

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

Yes. This challenge builds on existing asset condition monitoring and obsolescence registers, Network Asset Management Strategies and Circular economy commitments within GD3.

Specific projects include https://smarter.energynetworks.org/projects/nia_sgn0153/

What else do you need to know?

N/A

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.