Energy Innovation Basecamp 2026
Problem Statement EIP158

Risk-averse outage planning at GSPs

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: Flexibility and Forecasting

Network Areas: Electricity Distribution, Electricity Transmission, Electricity System Operator,

What is the problem?

Network access for planned outages affecting GSPs can be onerous to agree due to risk-averse outage planning, as TOs and DNOs seek to maximise their ENS and IIS incentives respectively, in response to consistent stakeholder feedback. The status of the assets which remain in-service during the planned outage may not be routinely considered in detail. On balance, Emergency Return To Service (ERTS) measures may be unnecessarily extensive and costly for low probability events.

What are we looking for?

Several factors can affect the likelihood of a fault occurring during a planned outage affecting a given GSP, some of which may not currently be considered in demand risk assessments for planned outages. Solutions should utilise existing data sources to provide a probabilistic demand risk assessment for planned outages. This will inform efficient risk mitigation requirements for a given outage or outage combination. Solutions should be scalable for use at a given GSP or combinations of GSPs.

What are the constraints?

The solution must not significantly diminish asset life. Minimal disruption to existing network assets is preferred, utilising existing data sources instead to deliver value quicker. Loss of supply likelihood and impact must be clearly articulated by the solution in each instance, including the logic behind the figures, for key stakeholders to make an informed decision.

Who are the key players?

Key players are TOs, DNOs, DSOs, NESO, sensitive customers. TO benefit (efficient delivery of construction and asset replacement portfolio), DNO benefit (reduced period of demand at risk), Consumer benefit (reduced disruption to embedded renewable generation), Developer benefit (faster connections). Collaboration with DNOs is critical to the success of solutions.

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

The problem statement recognises the ongoing conflict of network access affecting GSPs versus reliability of supply, exacerbated by the requirement to deliver increasing construction, asset replacement and maintenance portfolios.

What else do you need to know?

Use this space to add anything else that an innovator would need to know to submit a submission to this problem statement. This may be additional context on the issue, additional sources of information, additional information about your network's processes, or any additional enablers and constraints.

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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.