Energy Innovation Basecamp 2024
Problem Statement EIP115

Re-creating Loading Diversity in a World of Automated Assets following Price Signals

The following problem statement has been developed by the innovation teams within the UK's Gas and Electricity Networks for the 2024 Energy Innovation Basecamp.

Theme: Flexibility and Forecasting

Network Areas: Electricity Distribution

What is the problem?

Throughout the energy transition, there will be more and more assets with automated capability that can and will follow market price signals. This would traditionally be at times when there is excess network headroom, during the early hours of the night with EV charging, for example, but at what point would this become a problem and what would the mitigations be to negate this potential peak shifting.

The key is understanding the potential scale for this. Currently it is not an issue, but with the increasing uptake of LCTs, there may become a point when this does become a problem.

What are we looking for?

We would like to understand through a potential feasibility and thought leadership piece, the possibility and potential effect of the aforementioned problem. We would like to see potential mitigations that could be put in place in order to spread load over a longer period of time. Questions to be considered include: Will weaker price signals be introduced in the process? Will the natural dynamics of the wholesale market smooth it out? Are there any other ways that this could be mitigated and if introduced does it completely negate peak shifting during these periods.

What are the constraints?

- The solution must consider a range of assets that could potentially impact the network
- The solution must consider current and potential future market structures

Who are the key players?

- Flexibility Service Providers
- Energy Suppliers
- Economic Consultants
- DNOs
- Asset Owners

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

N/A

What else do you need to know?

The potential project would likely need multiple stakeholders involved in order to achieve the desired output.

Innovator submissions to this problem statement will be open here during March and April, 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.

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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 in March 2024. More information on last year's Basecamp programme can be found here.