Probabilistic Demand Risk

EIP158

ENA Basecamp 26

The Challenge

TOs are encouraged to avoid loss of supply via the Energy Not Supplied (ENS) incentive

DNOs are encouraged to avoid loss of supply via the Interruption Incentive Scheme (IIS)

Demand risk - convert MWh energy lost into financial penalty, based on Emergency Return To Service time

MWh energy lost represents number of customers disconnected

Stakeholder feedback consistently informs networks that Reliability of supply is consumers' top priority

Network Owners committed to reinforce network by Connection dates, and replace assets timeously

Conflict - portfolio delivery v's demand risk aversion

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The Impacts

Low likelihood, high impact: Delicate balance

Extensive mitigation: Resource-intensive mitigation, not utilised

Repeat discussions: Lengthy, iterative process to reach agreement in each instance

Cost & Programme: ERTS arrangements can increase project cost and outage duration

The Ambition

- Utilise existing data
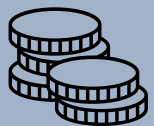- Define degrees of risk
- Standard agreements for individual GSPs
- Maintain great ENS / IIS performance
- Collaborative solution across ownership boundary
- Reduce burden on projects to develop bespoke mitigations
- Cost effective including long deployments

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The Solution

The solution is not TRL-specific

The solution should:

- Inform efficient demand risk mitigation for events across the range of likelihood, using existing data
- Be scalable for use at a single GSP or combinations of GSPs, and across a range of outage durations
- Ensure asset life is not diminished
- Minimise disruption to existing assets

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