

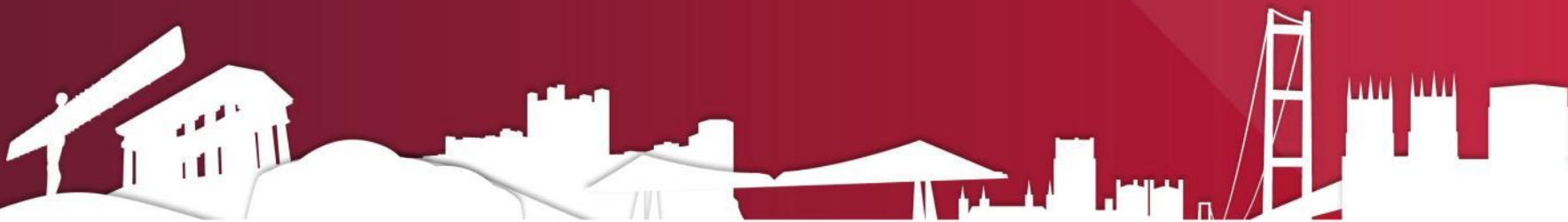


Innovation Challenges

Maintaining Resilience in the Net Zero Transition

EIP129

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Maintaining Resilience in the Net Zero Transition

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- As we reduce the number of energy vectors from 3 to 1 (gas, diesel and electricity to electricity alone), the reliability of the energy supply to the customer reduces.
- Current vectors are independent of one another, a single vector system will contain multiple and complex interactions.
- Customers will not buy into a lower reliability energy lifestyle.
- This will hinder decarbonisation unless the reliability issue is addressed.
- What solutions will increase the inherent resilience of the whole energy system a customer uses?
- These may be hybrid techno-social or medium term until other approaches can be deployed.

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- Theoretically, how might you build an electrical distribution and transmission system that is never off?
- How might you build such a system economically?
- Can we build it as a series of interacting cells – a fractal approach?
- What technologies could be scattered across the network and where in order to get part way down this path?

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- Projects already running in this space include:
 - MicroResilience
 - Resilient Customer Response
 - Community DSO NIC
 - Various flexibility schemes
- All available on the smarter networks' portal.