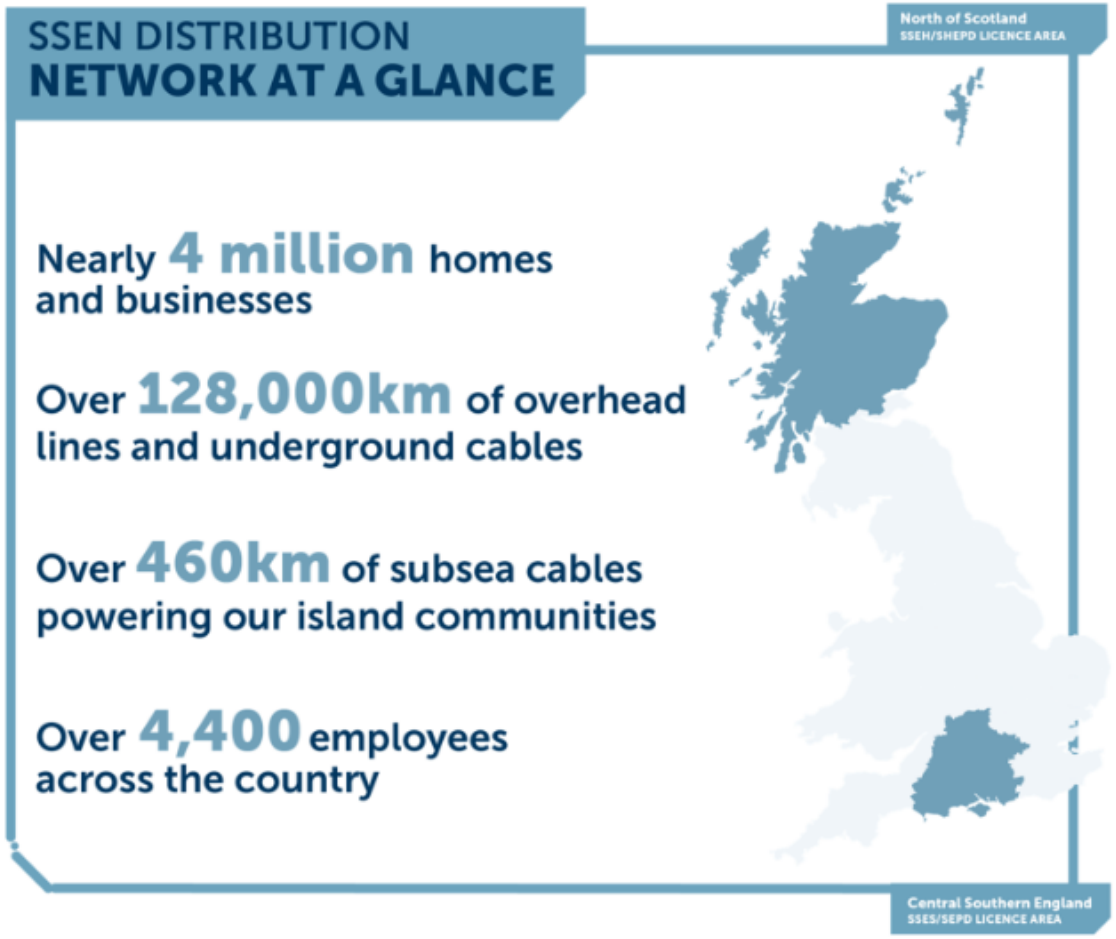
Innovation Basecamp 2026

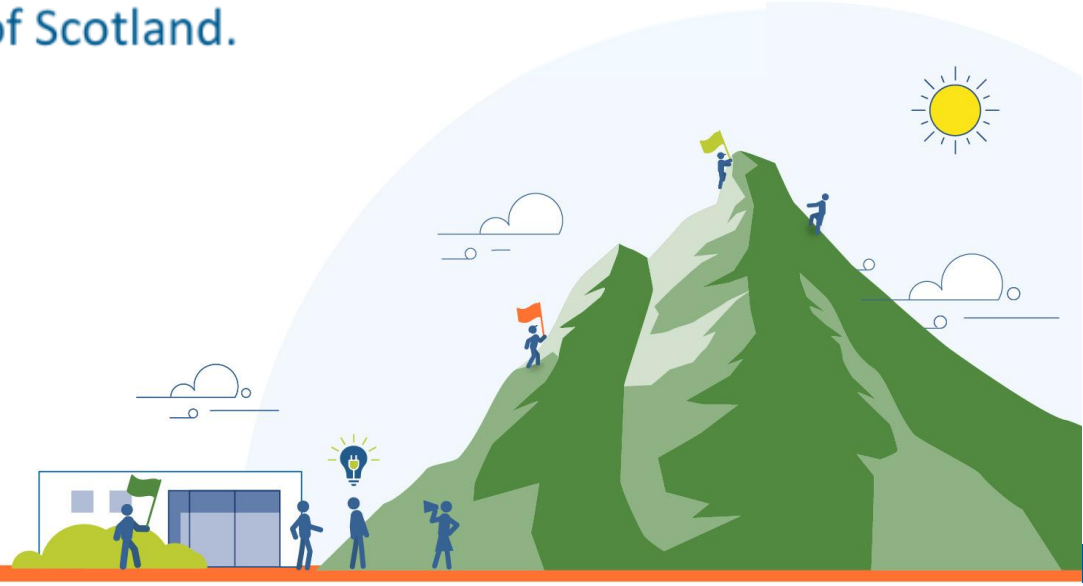
4th February 2026 – Park Plaza, London

Introduction



We're Scottish and Southern Electricity Networks (SSEN) Distribution, part of the SSE plc Group.

We're the Distribution Network Operator (DNO) responsible for delivering power to almost 4 million homes and businesses across central southern England and the north of Scotland.



Background Information

In recent years we have been seeing an increased amount of energy vectors heading towards electricity. As the country pushes towards Net Zero the strains on our electricity networks are only going to grow. The increases in LCT at domestic and business levels are accelerating. The network is only getting older and reliance on the network's integrity is growing – working from home, heating the home, charging cars and increasing social / medical care in the home.

Key background details and facts:

- 38000+ Ground Mounted TXs in SSEN (SEPD & SHEPD)
- 64000+ Pole Mounted TXs in SSEN (SEPD & SHEPD)
- Ground Mount 500kva – Pole Mount 50/100kva
- Ground Mounted TX – Urban environment / networks
- Pole Mounted TX – Rural environment / networks

What are the Problems?

- **The key issues?**
  - Transformers are bulky and heavy
  - Their weight limits & capacity
  - Overall, they have a lack of modularity
  - Oil or gas cooled units are presenting a legacy issue – SF6/PCBs

- **Why do you think these are the issues?**
  - Network demands are evolving quickly, and we need to keep pace
  - Reinforcement of existing networks is costly and disruptive
  - Lack of modularity impacts our ability to adapt to a changing scenario

Our Expectations

What are we looking for?

Solution Expectations:

- Makes effective use of modern materials and manufacturing methods
- Proposed solutions may be prototypes or early-stage trial concepts
- Reduce overall weight, minimise complexity, and/or enhance visibility through integrated communications or monitoring features.
- It must operate under the same conditions as SSEN's current fleet, achieving equivalent electrical, thermal, and mechanical performance.
- All proposed designs must comply with relevant secondary transformer standards

Non-negotiables:

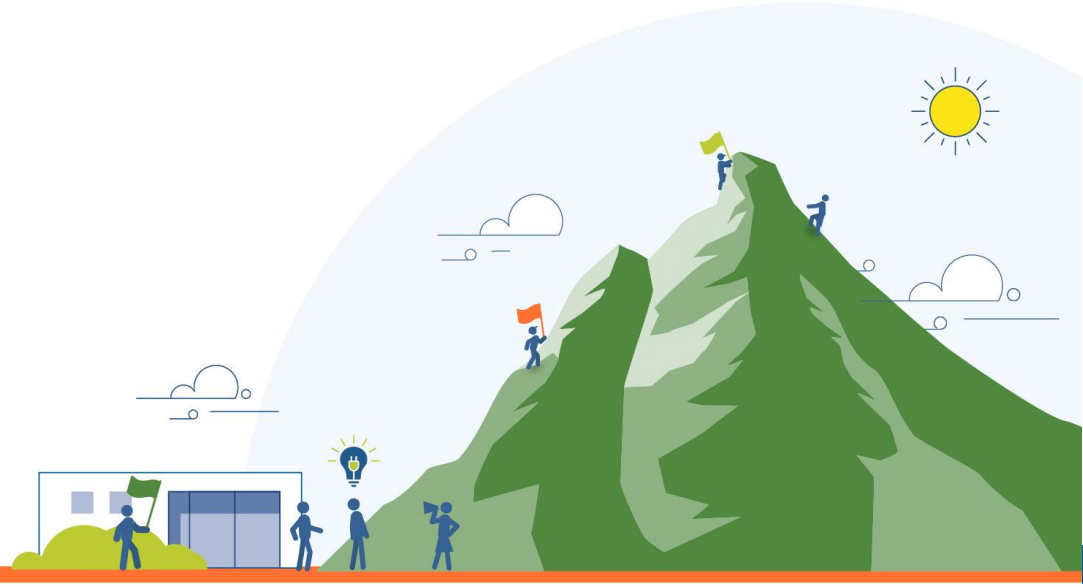
- The transformer must match or exceed the performance of the existing SSEN 11kV secondary transformer fleet across all key electrical, thermal, and mechanical parameters.
- The design must fully comply with all relevant standards for secondary
- Any proposed concept must be able to operate in the same way as current devices, ensuring seamless integration with SSEN's operational practices and Distribution Safety Rules.

IMPORTANT

We are looking for professionally presented plans.

Ideally, these will contain suggested work packages, partners, and costs.

A list of ideas without any delivery plans are unlikely to be taken forward.



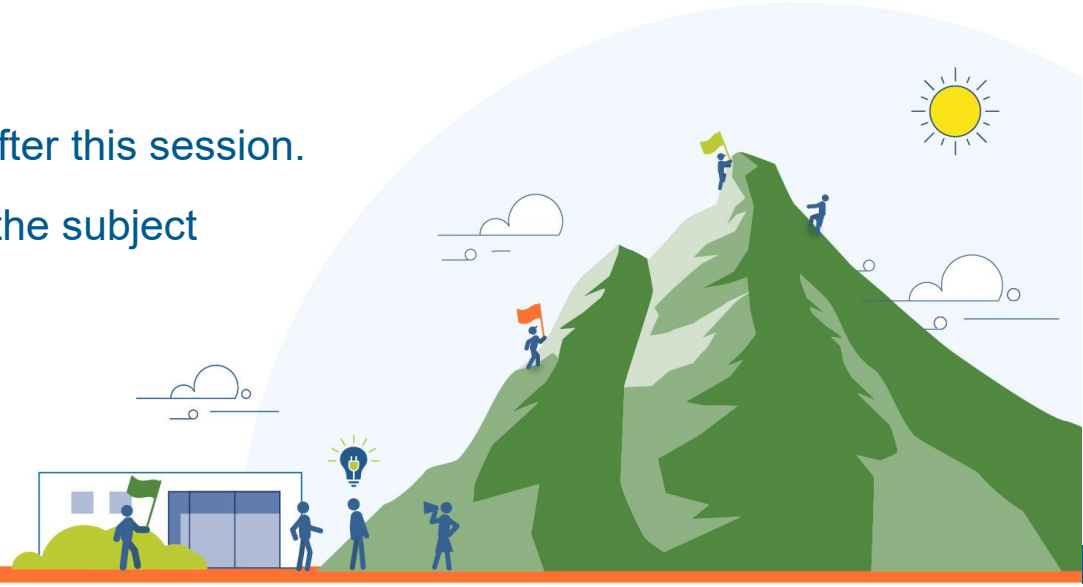
Questions:

Any questions please?

Key Contacts:

For further information and clarity, please see Simon, Divante or me after this session.

Alternatively, please email futurenetworks@sse.com at any time with the subject heading: **Basecamp26.**



Energy Networks Association
4 More London Riverside
London SE1 2AU
t. +44 (0)20 4599 7700

@EnergyNetworks
energynetworks.org

scan me

Subscribe to our newsletter to receive updates from ENA

energynetworks.org/**subscribe**

The voice of the networks