Flexible Approaches for Low Carbon Optimised Networks (FALCON)

Dedicated website – No

Organisation webpage – Yes

Centralised portal – ENA Smarter Networks

Objectives/Success Criteria – Yes

Closedown/final report – Yes

Open-source data – No

Peer-reviewed academic output (Primary Subject / Referenced) - 5 / 3

Brochures/Case Studies/Videos – Yes

On-line major conference/event presentations - 12

Dissemination Event / Output available – 1 / 1

Follow-on project – No

Consumer Engagement

Consumer Participation – No

Consumer Feedback – No

Output Summary

Progress reports – Yes

Detailed and objective final report – Yes

Project method detailed – Yes

Performance to objectives detailed – Yes

Lessons learned identified – Yes

Policy/Regulation implications reviewed – Yes

Multiple detailed closedown report for different work packages.

Outcomes vs. Objectives/Targets

Performance to objectives – All achieved.

Key Findings

- Collaborative projects should be underpinned by detailed terms and conditions and liabilities for underperformance.
- Primary Transformer Dynamic Asset Rating should be further considered as a method of delaying and potentially avoiding reinforcement. This could be progressed by further trials with transformers that are approaching operational limits.
- Automatic load transfer trials on two portions of networks suggested that this technique may be able to remove capacity constraints. A potential widespread reduction in network losses may be possible through a one-off review of normal open point locations.
- Battery operational performance demonstrated: effective peak-shaving at both individual substation and feeder level; limited voltage management through reactive power output;

and the potential to satisfactorily react to grid frequency (one example of an ancillary service).

- DSR proved to be viable and showed that participants should be connected at a lower voltage level than the assets or constraints to be managed.