

Low Carbon Hub

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) - 0 / 0

Brochures/Case Studies/Videos – No

On-line major conference/event presentations - 1

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

Outcomes vs. Objectives/Targets

Performance to objectives – All achieved

Key Findings

- DNOs and generation developers can enter into a new type of commercial agreement, called Alternative Connections Agreements, to unlock additional capacity if the generator is willing to operate in a suitable reactive power mode and constrain active power when required.
- Ring network arrangements in rural areas rather than the traditional radial design can increase power flow flexibility and capacity.
- OHL that are being replaced should be ungraded with additional generation capacity planned for.
- Incorporating wind speed data into OHL Dynamic Line rating algorithms allows better estimation of the maximum circuit rating.
- Monitoring of network voltage at key locations allows for dynamic control of voltage that optimises the voltage profile by balancing demand and generation requirements to unlock capacity.

- Improved control of power factor and network voltage can be achieved by providing source of sink shunt compensation.