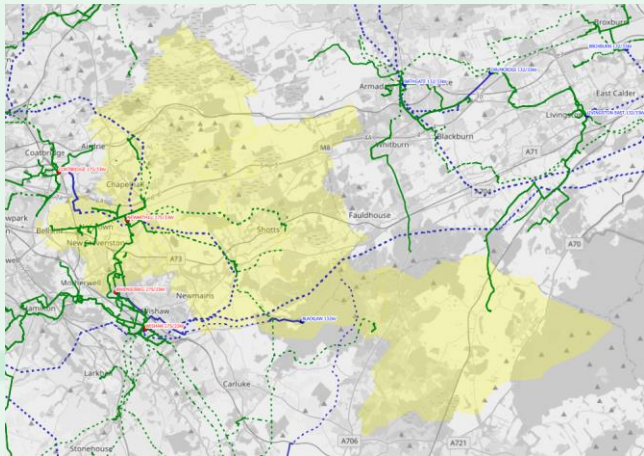


Newarthill GSP Fault Level Mitigation

Reinforce without flexibility



The Newarthill demand groups supply ca. 45,000 customers and is geographically located in the Lanarkshire region of SP Distribution (SPD) licence area. The GSP supplies nine 11kV primary substations; Allanbank, Bellshill, Carfin, Chapelhall, Coddington Cres, Forth, Newhouse, Shotts and Towers Rd.

Constraint

FAULT LEVEL
The peak make and RMS Break fault level at the Newarthill GSP 33kV switchboard exceeds the network design limit. During RIIO-T2 preparation we worked collaboratively with SP Transmission to undertake a whole system approach to identify the most economic and efficient solution. It was identified that a reduction in fault levels to a value less than the network design rating can only be achieved with transmission works.

Decision

Reinforce without flexibility
SPT will install a three-panel switchboard onto the cabling between each SGT and 33kV incomer on the switchboard. A 45MVA reactor will be connected between each three-panel switchboard to provide an alternative path when the bus-section circuit breaker on the main switchboard is operated in the normally open position, thereby limiting the fault level infeed from the transmission system.

Justification for decision
Due to the predicted increase in fault levels, operational management is not an enduring solution. Flexibility would not relieve fault level constraints.

Flexibility product
N/A

Constraint season(s)
Year round

Guide price
Competition closed

Reinforcement timescale
2024/25



Flexibility Tendering

Closed

We are not currently tendering for flexibility services at this location.

Technical Appraisal

More detailed technical information on the nature of the constraint, network impacts, solutions considered and selected intervention are available in this scheme’s [Engineering Justification Paper](#)

To ensure that our plans and publications cover the needs of our stakeholders, customers, and the communities we serve, we welcome ongoing feedback.

Feedback can be emailed to: systemdesignteam@spenergynetworks.co.uk

Flexibility position at March 2024	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)					
Flexibility required (MW)					
Flexibility procured (MW)					
Flexible MW capacity met (%)					