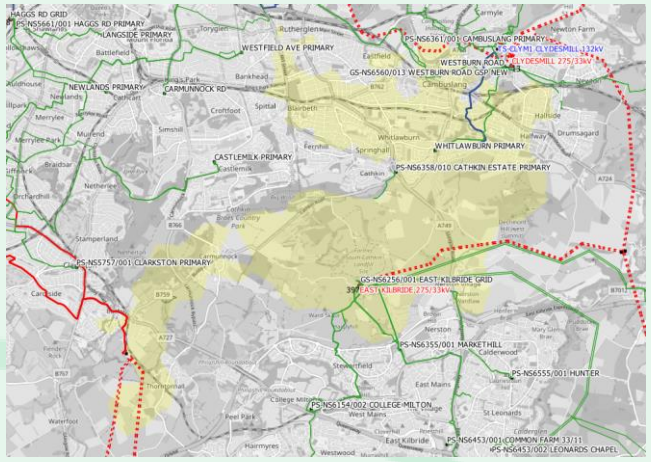
Whitlawburn Primary Fault Level Mitigation

Reinforce without flexibility



The Whitlawburn demand groups supply ca. 14,000 customers and is geographically located in the Glagow region of SP Distribution (SPD) licence area.

Constraint	**FAULT LEVEL** The 11kV peak make fault level exceeds the equipment rating and the RMS break duty is at 95%. Although, there is one landfill generation site that contributes to the fault level issue, the main reason for the high fault level is attributed to the impedance on rating (31.1%) of the 33/11kV, 20/40MVA transformers and the configuration of the 33kV network.
Decision	**Reinforce without flexibility** Establish a new Cathkin primary substation with two 20MVA 33/11kV transformers and a 9-panel 11kV switchboard, located on ground occupied by the former Cathkin substation owned by SPEN. Once Cathkin primary substation is established and the demand on the Whitlawburn 33/11kV transformers is reduced, the Whitlawburn 33/11kV transformers will be renewed, replacing the 20/40MVA units with standard impedance 20MVA transformers.
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	2027/28

Flexibility not required

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 (%)					

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

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