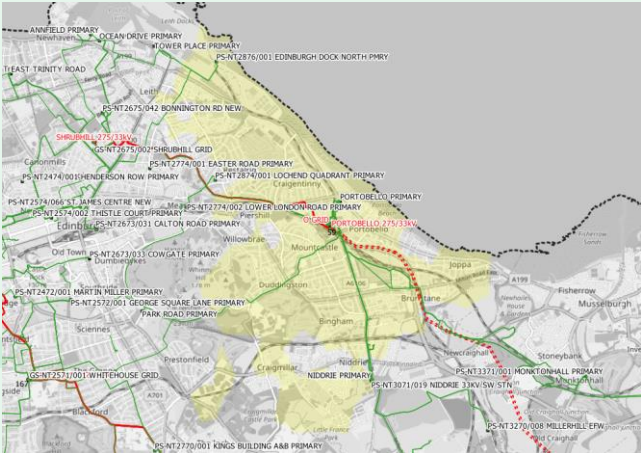


Portobello Primary Fault Level Mitigation

Reinforce without flexibility



The Portobello demand groups supply ca. 23,000 customers and is geographically located in the Edinburgh & Borders region of SP Distribution (SPD) licence area. It is fed from Portobello Grid Supply Point (GSP).

Constraint

FAULT LEVEL
Both the 11kV peak make and RMS break duty fault level exceed the design rating and are around 120% and 110% respectively. The main reason for the high fault level is due to the legacy connection arrangement of the primary substation including three transformers and three busbar sections. The 11kV primary switchgear is rated at 350MVA however the network switchgear on the connected circuits will be rated at 250MVA which puts the wider 11kV network at risk

Decision

Reinforce without flexibility
Replace the existing 11kV switchboard and establish a new Baileyfield Road 'B' primary substation with two new 33/11kV transformers and 11kV switchboard. The existing T2 and T3 transformers will be used to feed the new Baileyfield Road 'A' Primary.

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)

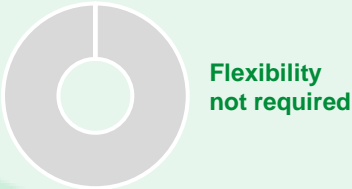
Year round

Guide price

Competition closed

Reinforcement timescale

2027/28



Flexibility 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