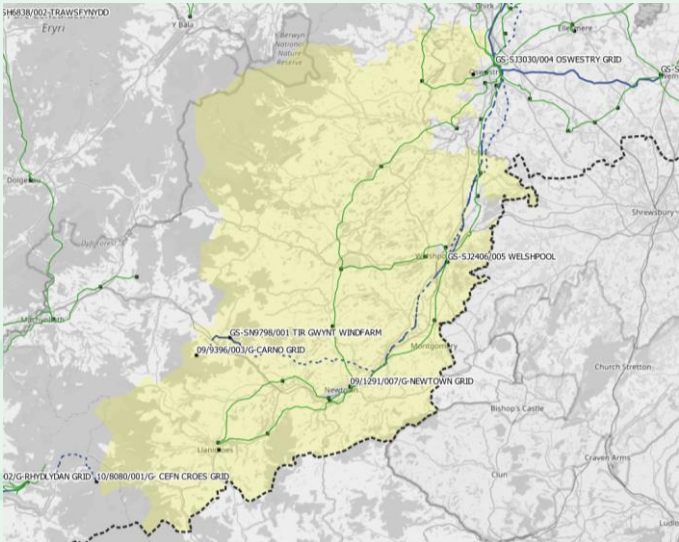


Newtown-Morda 33kV reinforcement

Reinforce, supported by flexibility



The Newtown and Morda areas of the SP Manweb network lie within the Legacy/Newtown/Oswestry/Welshpool 33kV group, which supplies over 69,000 customers via 27 primary transformers, predominantly fed from long overhead line circuits. The group operates interconnected with the neighbouring Oswestry / Whitchurch 33kV group – which Modra primary is closest to.

Constraint

VOLTAGE

The group is presently at voltage limits and at risk of marginal voltage excursions outside of statutory limits. it is presently being operationally managed. The voltage issues need to be mitigated to be able to accommodate additional demand associated with demand growth and LCT uptake in the RII0-ED2 period.

Decision

Reinforce, supported by flexibility

Install ±10MVar STATCOM at Newtown Grid substation, a 33/11kV step up transformer and dedicated outdoor CB. Install 33kV, 5MVar mechanically switched capacitor bank at Morda and a dedicated outdoor circuit breaker. Contract flexibility services to support the network during the project delivery.

Justification for decision

Flexibility services are not suitable to mitigate the voltage step issues as the response time needs to be fast acting in real-time. Therefore, reinforcement is being progressed. This innovative solution has significantly higher Net Present Value (NPV) to conventional reinforcement options considered, which include new grid infeed and new circuits.

Flexibility product

SECURE

Constraint season(s)

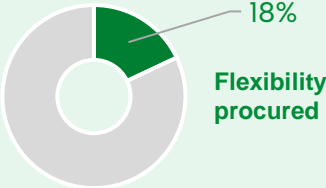
Winter

Guide price

Availability fee up to **£64/MW/hr**
Utilisation fee up to **£78/MWh**

Reinforcement timescale

2027/28



Flexibility position at March 2024	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	173.0	254.5	309.5	499.5	837.0
Flexibility required (MW)	5.9	5.9	6.0	6.2	7.9
Flexibility procured (MW)	0.1	0.1	2.1	3.0	0.6
Flexible MW capacity met (%)	1%	1%	35%	48%	7%

Flexibility Tendering

Open

We are tendering for flexibility services at this location.

More information is available on the [PICLO Flex website](#)

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