Colwyn Bay-Dolgarrog 33kV reinforcement

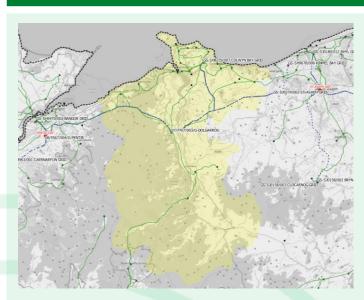


Flexibility

procured



Reinforce, supported by flexibility



The SP Manweb (SPMW) network in North Wales around the Colwyn Bay, Llandudno, Dolgarrog, and Conway is supplied from Connahs Quay/St Asaph's/Pentir Grid Supply Point (GSP) group. The GSP group supplies the Colwyn Bay/Dolgarrog 33kV group, which in turn supplies over 50,100 customers, including across several recreational/tourist destinations in the area.

Constraint	THERMAL and SECURITY OF SUPPLY Demand and generation are not uniformly distributed across the group, leading to increased loading on the direct interconnector. Demand growth in this group is expected to load the circuit between Colwyn Bay and Dolgarrog beyond its cyclic ratings and risk cascade tripping of the group and loss of supplies to over 40,000 customers during 132kV N-1-1 outage situations.		
Decision	Reinforce, supported by flexibility Install 25MVA X=5% 33kV circuit reactor at Colwyn Bay 33kV grid substation in series with the circuit between Colwyn Bay – Dolgarrog. Contract with flexibility services providers in the group to manage the extant network constraints.		
Justification for decision	This option was chosen over circuit reinforcement options as it had the highest Net Present Value (NPV).		
Flexibility product	DYNAMIC (contracted so far is SUSTAIN)	12%	
Constraint season(s)	Summer		

Availability fee up to £5/MW/hr

Utilisation fee up to £500/MWh

2025/26

Flexibility position at March 2024	2023/24	2024/25	2025/26	2026/27	2027/28
Risk duration (hrs)	118.0	147.5	174.0	225.5	335.0
Flexibility required (MW)	2.2	2.3	2.5	2.7	3.2
Flexibility procured (MW)	0.3	0.3	0.3	0.3	0.3
Flexible MW capacity met (%)	14%	14%	13%	12%	10%

Guide price

Reinforcement timescale

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