

Llandrindod – Rhayader



DNOA Decision

Reinforce with Flexibility

Constraint description

Llandrindod Wells 66/11 kV primary substation and Rhayader substation drop below statutory voltage limit when there is an N-1 outage on the T1 transformer at Llandrindod Wells. The voltage can be brought back within statutory limits by reducing demand at Llandrindod Wells and Rhayader.

Reinforcement description

The proposed reinforcement solution is part of a wider Mid Wales area solution. For this particular scheme the proposed reinforcement is to upgrade the transformers at Llandrindod and increase the connectivity of the 11 kV network.



Constraint Season
Winter/Summer



Flexibility Product
Dynamic



Outage Type
N-1



Justification for decision

Reinforcement works are being progressed. Flexibility will be utilised as required to manage the constraint in the interim.

Constraint management timeline

2024 H1 Procurement
2023 H2 Procurement
2023 H1 Procurement
2022 H2 Procurement
2022 H1 Procurement
2021 H2 Procurement
2021 H1 Procurement
2020 H2 Procurement
2020 H1 Procurement

Time to Reinforce: 4 years

Constraint Type: Voltage

Estimated flexibility price (£) and volumes (MWh) per year under Best View:

| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|--------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Availability | £6 / 2,492 MWh | £6 / 2,699 MWh | £ 4 / 4,231 MWh | £ 3 / 5,800 MWh | £ 2 / 7,377 MWh | £ 2 / 9,059 MWh |
| Utilisation | £ 382 / 19 MWh | £ 357 / 20 MWh | £ 230 / 30 MWh | £ 165 / 41 MWh | £ 129 / 57 MWh | £ 102 / 76 MWh |



For more information visit: nationalgrid.co.uk/network-flexibility-map-application