Chesterfield GSP

Scheme description

Demand, generation and fault level constraints at Chesterfield GSP. The optimal reinforcement scheme is being developed in conjunction with NGET and NGESO.

Justification for decision

Generation constraints have been identified which are not suitable for mitigation with flexibility.

Constraint Information

Outage Type N-1 / N-2
Constraint Type Thermal

Reinforcement Information

Completion Year 2030
Current Status Preliminary

DNOA Decision
Reinforce

Chesterfield Main

Scheme description

The Chesterfield – Grassmoor 33 kV circuits have limited capacity for an N-1 circuit outage. 33 kV circuit works are being carried out to resolve this constraint (as well as uprating the transformers at Grassmoor primary).

Justification for decision

The latest flexibility analysis carried out shows no flexibility requirements before reinforcement will be completed.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2027
Current Status In Construction

DNOA Decision
Reinforce

Grendon – Corby 132kV

Scheme description

Under N-2 conditions for the loss of two of the Grendon – Corby 132 kV circuits, one of the remaining circuits potentially overloads. Reinforcement is likely to involve establishing a new GSP to the north of Grendon.

Justification for decision

There are multiple drivers for reinforcement including both demand and generation connections.

Constraint Information

Outage Type N-2
Constraint Type Thermal

Reinforcement Information

Completion Year 2034
Current Status Preliminary

DNOA Decision
Reinforce

Coalville to Mantle Lane T1

Scheme description

For the loss of the 33 kV circuit to Mantle Lane T2, the circuit to T1 could overload. 33 kV circuit works will be required to manage this constraint.

Justification for decision

This zone is nested within the Loughborough BSP zone, making it unsuitable for procurement.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce

Coalville to Mantle Lane T2

Scheme description

For the loss of the 33 kV circuit to Mantle Lane T1, the circuit to T2 could overload. 33 kV circuit works will be required to manage this constraint.

Justification for decision

This zone is nested within the Loughborough BSP zone, making it unsuitable for procurement.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce

Holme Carr

Scheme description

For an arranged or fault outage on either side of Holme Carr the remaining transformer could overload. The reinforcement plan is to replace both transformers with higher rated units.

Justification for decision

Flexibility is not suitable here as reinforcement is triggered by asset condition.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2027
Current Status Preliminary

DNOA Decision
Reinforce

Hopton – Cromford

Scheme description

Load growth indicates that the Hopton – Cromford primary group will exceed its firm capacity under N-1 (loss of either transformer). The optimal reinforcement solution is to install a second transformer at each site and a new 33 kV circuit from Winster BSP.

Justification for decision

Reinforcement is triggered by new connections, making this scheme unsuitable for flexibility.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2027
Current Status Preliminary

DNOA Decision
Reinforce

North Wheatley

Scheme description

The capacity of the 11 kV backfeeds at North Wheatley primary is forecast to be exceeded in the future. The reinforcement scheme is to install a second transformer and 33 kV infeed.

Justification for decision

Reinforcement is triggered by new connections, making this scheme unsuitable for flexibility.

Constraint Information

Outage Type N-1
Constraint Type Security of Supply

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce

Spondon Primary

Scheme description

Following an arranged or fault outage on one of the transformers at Spondon primary the full site demand is picked up by the other transformer. The reinforcement proposal is to add third primary transformer.

Justification for decision

This constraint can be managed operationally in the short to medium term with a review of the seasonal transformer ratings.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2028+
Current Status Preliminary

DNOA Decision
Reinforce

Northampton West BSP

Scheme description

N-1 GT constraint at Northampton West BSP. The reinforcement proposal is to reinforce Northampton BSP allowing it to pick up demand from Northampton West. This reinforcement proposal also resolves the Northampton East BSP constraint.

Justification for decision

Reinforcement triggered by new connections and tied to the overall reinforcement plan for Northampton.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce

Northampton Group

Scheme description

The Northampton group is approaching 300 MW of group load, at which point the existing circuits will not be able to meet the security of supply obligations. A fourth circuit into the group is being built to resolve this issue.

Justification for decision

Flexibility is not feasible due to the configuration of the group and varying sensitivity factors.

Constraint Information

Outage Type N-2
Constraint Type Thermal

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce

Northampton East BSP

Scheme description

N-1 GT constraint at Northampton East BSP. The reinforcement proposal is to reinforce Northampton BSP allowing it to pick up demand from Northampton East. This reinforcement proposal also resolves the Northampton West BSP constraint.

Justification for decision

Reinforcement triggered by new connections and tied to the overall reinforcement plan for Northampton.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce

Staythorpe C to AD1C Circuit

Scheme description

Two spans of 132 kV overhead line between Staythorpe C and tower AD1C are constrained. The proposed reinforcement solution is to uprate these two spans.

Justification for decision

The proposed reinforcement works are below the threshold for economic viability.

Constraint Information

Outage Type N-2
Constraint Type Thermal

Reinforcement Information

Completion Year 2024
Current Status Preliminary

DNOA Decision
Reinforce

Walpole to Spalding Tee 132kV

Scheme description

Demand and generation thermal constraints on the 132 kV circuits between Walpole GSP and Spalding BSP. Building a new GSP at Bainton will resolve this constraint.

Justification for decision

There are multiple drivers for reinforcement including both demand and generation connections.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce

Willington – Derby South – Spondon

Scheme description

Various outage conditions can overload the circuits from Derby South Bulk Supply Point (BSP) to Spondon BSP. Reinforcement solution involves multiple projects, including reconfigurations of Willington GSP and Spondon BSP.

Justification for decision

Flexibility is not feasible due to the complex nature of the constraint, and the fact that the proposed reinforcement has multiple drivers (including fault levels).

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2029
Current Status Preliminary

DNOA Decision
Reinforce

Wingerworth

Scheme description

The capacity of the 11 kV backfeeds at Wingerworth primary is forecast to be exceeded in the future. The reinforcement scheme is to install a second transformer and 33 kV infeed.

Justification for decision

Constraint is too complex for mitigation through flexibility, and no flexibility requirements have been identified in the short term.

Constraint Information

Outage Type N-1
Constraint Type Security of Supply

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce

Wise Street

Scheme description

Following an arranged or fault outage on one of the transformers at Wise Street primary the full site demand is picked up by the other transformer. The reinforcement proposal is uprate both transformers and 33 kV circuits to Wise Street.

Justification for decision

Reinforcement is triggered by new connections, making this scheme unsuitable for flexibility.

Constraint Information

Outage Type N-1
Constraint Type Thermal

Reinforcement Information

Completion Year 2028
Current Status Preliminary

DNOA Decision
Reinforce