

# Alford Primary



DNOA Decision  
**Flexibility**

## Constraint description

Alford is a 33/11 kV primary substation supplied from Skegness Bulk Supply Point. Both transformers at Alford are projected to exceed their thermal capacity following an outage on the other.

## Reinforcement description

Replace the existing 33/11 kV transformers and 11 kV switchboard with higher rated units.



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H2 Signposting

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£64 / MWh	£32 / MWh	£19 / MWh	£11 / MWh	£5 / MWh
	632 MWh	1,109 MWh	1,923 MWh	3,369 MWh	7,294 MWh
Utilisation	£3,862 / MWh	£1,946 / MWh	£1,122 / MWh	£641 / MWh	£296 / MWh
	6 MWh	11 MWh	19 MWh	34 MWh	73 MWh



For more information, see the **Skegness 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Alfreton-Wessington



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

Alfreton Bulk Supply Point supplies Wessington, Ambergate and Ravensdale Park primaries through a pair of 33 kV circuits. Due to high demand and generation growth, the circuits are expected to have thermal and voltage constraints.

## Reinforcement description

In order to resolve this constraint, alongside constraints at Ambergate, the long term proposed reinforcement is to install two new 33 kV circuits from Alfreton towards Ambergate primary, which will remove Wessington from the group and facilitate the future expansion of Wessington primary.



Constraint Season  
Winter and Summer



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

**2026 H1 Procurement**

**2024 H2 Procurement**

**2024 H1 Procurement**

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£83 / MWh	£83 / MWh	£83 / MWh	£62 / MWh	£29 / MWh
	140 MWh	308 MWh	833 MWh	1,446 MWh	3,090 MWh
Utilisation	£5,000 / MWh	£5,000 / MWh	£5,000 / MWh	£3,741 / MWh	£1,751 / MWh
	1 MWh	3 MWh	8 MWh	14 MWh	31 MWh



For more information, see the **Alfreton 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Anderson Lane Primary



## Constraint description

Anderson Lane primary has two 33/11 kV transformers. Following an arranged or fault outage on one of the transformers the full site demand is picked up by the other transformer.

## Reinforcement description

The transformers and 11 kV switchboard at Anderson Lane primary could be updated to increase its firm capacity.



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H2 Signposting

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£83 / MWh	£19 / MWh	£6 / MWh	£3 / MWh	£2 / MWh
	120 MWh	1,857 MWh	5,641 MWh	11,050 MWh	18,583 MWh
Utilisation	£5,000 / MWh	£1,162 / MWh	£383 / MWh	£195 / MWh	£116 / MWh
	1 MWh	19 MWh	56 MWh	110 MWh	186 MWh



For more information, see the **Lincoln 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Ashbourne Primary



DNOA Decision

**Signposting**

## Constraint description

The transformers at Ashbourne primary and the two 33 kV circuits from Winsters BSP and Longcliffe primary are projected to overload for an N-1 condition (the loss of either circuit or transformer).

## Reinforcement description

The transformers at Ashbourne primary could be upgraded to add capacity. 33 kV circuit works would also be required (to resolve this constraint and a projected constraint on the circuit between Winsters BSP and Longcliffe primary).



Constraint Season  
Winter and Summer



Outage Type  
N-1



## Justification for decision

No flexibility requirement under Holistic Transition until 2030.

## Constraint management timeline

2026 H1 **Signposting**

2024 H2 Signposting

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility volumes per year under Holistic Transition:

2026	2027	2028	2029	2030
0.0 MWh	0.0 MWh	0.0 MWh	0.0 MWh	9 MWh



For more information, see the **Winsters 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Bradwell Abbey BSP



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

Bradwell Abbey BSP has two 132/33 kV Grid Transformers (GTs) which are projected to be constrained due to demand growth for an N-1 (fault or arranged outage on either GT).

## Reinforcement description

A third GT will be installed at Bradwell Abbey BSP, along with the additional switchgear required to allow the full capacity of the new GT to be utilised.



Constraint Season  
Winter and Summer



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

**2026 H1** Procurement

**2024 H2** Procurement

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£3 / MWh	£2 / MWh	£0.89 / MWh	£0.56 / MWh	£0.36 / MWh
	16,297 MWh	28,013 MWh	47,254 MWh	75,636 MWh	118,137 MWh
Utilisation	£173 / MWh	£90 / MWh	£54 / MWh	£33 / MWh	£21 / MWh
	163 MWh	280 MWh	473 MWh	756 MWh	1,181 MWh



For more information, see the **East Claydon 132 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Braunston Road Primary



DNOA Decision  
**Flexibility**

## Constraint description

Braunston Road is a 33/11 kV primary substation supplied from Daventry Bulk Supply Point. Both transformers are expected to exceed their thermal capacity following an outage on the other.

## Reinforcement description

Replace the existing 33/11 kV transformers with higher rated units.



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H2 Signposting

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£0.00 / MWh	£61 / MWh	£5 / MWh	£2 / MWh	£1 / MWh
	0.0 MWh	404 MWh	5,218 MWh	11,894 MWh	22,890 MWh
Utilisation	£0.00 / MWh	£3,635 / MWh	£282 / MWh	£124 / MWh	£64 / MWh
	0.0 MWh	4 MWh	52 MWh	119 MWh	229 MWh



For more information, see the **Daventry, Rugby and Pailton 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Braunstone Primary



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

T2 at Braunstone Road primary is rated lower than T1, limiting the firm capacity of the site. The 33 kV circuits to the site are also projected to be constrained in the future.

## Reinforcement description

Upgrading T2 at Braunstone primary to match T1 would alleviate this constraint.



Constraint Season  
Winter and Summer



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

**2026 H1 Procurement**

**2024 H2 Procurement**

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£15 / MWh	£2 / MWh	£1 / MWh	£0.65 / MWh	£0.43 / MWh
	971 MWh	5,152 MWh	9,247 MWh	15,191 MWh	23,195 MWh
Utilisation	£902 / MWh	£115 / MWh	£64 / MWh	£39 / MWh	£26 / MWh
	10 MWh	52 MWh	92 MWh	152 MWh	232 MWh



For more information, see the **The Leicester Group 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Burton to Bretby

 DNOA Decision  
**Flexibility**

## Constraint description

The 33 kV circuits between Burton BSP and Bretby primary supply both Bretby and Woodville primaries. Arranged outages or faults on either circuit leave the full demand on the remaining circuit.

## Reinforcement description

Two new 33 kV circuits could be built from Burton BSP to Bretby primary, allowing it to be unstitched from Woodville primary (adding capacity and resolving this constraint).



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H2 Procurement

**Time to Reinforce:** 2.5 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£23 / MWh	£8 / MWh	£4 / MWh	£3 / MWh	£2 / MWh
	3,062 MWh	8,332 MWh	15,764 MWh	23,758 MWh	36,564 MWh
Utilisation	£1,393 / MWh	£478 / MWh	£253 / MWh	£168 / MWh	£109 / MWh
	31 MWh	83 MWh	158 MWh	238 MWh	366 MWh



For more information, see the **Burton, Burton South and Gresley 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Daventry Primary



DNOA Decision  
**Signposting**

## Constraint description

Daventry is a 33/11 kV primary substation supplied from Daventry Bulk Supply Point. Both transformers are expected to exceed their thermal capacity following an outage on the other.

## Reinforcement description

Replace the existing 33/11 kV transformers with higher rated units alongside the 11 kV switchboard.



Constraint Season  
Winter and Summer



Outage Type  
N-1



## Justification for decision

No flexibility requirement under Holistic Transition until 2030.

## Constraint management timeline

2026 H1 Signposting

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility volumes per year under Holistic Transition:

2026	2027	2028	2029	2030
0.0 MWh	0.0 MWh	0.0 MWh	0.0 MWh	2 MWh



For more information, see the **Daventry, Rugby and Pailton 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Grassmoor



DNOA Decision

## Reinforce with Flexibility

### Constraint description

Grassmoor is a 33/11 kV primary substation supplied from Chesterfield Bulk Supply Point (BSP). Both transformers are expected to exceed their thermal capacity following an outage on the other. The 33 kV circuits are the next limiting factor.

### Reinforcement description

The current reinforcement proposal covers 33 kV circuit works and transformer works at Grassmoor (with this scheme covering the transformer works).



Constraint Season  
Winter and Summer



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

2026 H1	Procurement
2024 H2	Procurement
2024 H1	Procurement
2023 H2	Procurement
2023 H1	Procurement
2022 H2	Procurement
2022 H1	Procurement
2021	Procurement
2020	Procurement

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

### Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£1 / MWh	£0.57 / MWh	£0.41 / MWh	£0.32 / MWh	£0.25 / MWh
	21,155 MWh	29,889 MWh	41,685 MWh	54,043 MWh	69,497 MWh
Utilisation	£62 / MWh	£34 / MWh	£25 / MWh	£19 / MWh	£15 / MWh
	212 MWh	299 MWh	417 MWh	540 MWh	695 MWh



For more information, see the **Chesterfield, Goitside and Buxton 33 kV NDP report:** [dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Harbury to Banbury 132kV



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

Two 132 kV circuits supply both Harbury and Warwick Bulk Supply Points from Berkswell Grid Supply Point. These two BSPs form an N-2 group. The 33 kV interconnection which is used to support this group for N-2 outages could become overloaded.

## Reinforcement description

The current reinforcement solution proposes building additional 132 kV infeeds into the Warwick / Harbury group. This proposal is under optioneering to ensure it is an enduring and strategic solution.



Constraint Season  
Winter and Summer



Outage Type  
N-2



## Justification for decision

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

## Constraint management timeline

**2026 H1 Procurement**

**2024 H2 Procurement**

**2024 H1 Procurement**

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£0.94 / MWh	£0.81 / MWh	£0.72 / MWh	-	-
	225,865 MWh	256,852 MWh	290,304 MWh	-	-
Utilisation	£57 / MWh	£49 / MWh	£43 / MWh	-	-
	2,259 MWh	2,569 MWh	2,903 MWh	-	-



For more information, see the **Berkswell 132 kV NDP report:**

[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Hawton BSP



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

Hawton Bulk Supply Point (BSP) has two 132/33 kV Grid Transformers (GTs) fed from the Staythorpe Grid Supply Point (GSP) via two 132 kV circuits. For the loss of one of the GTs at Hawton the full demand is supplied by the remaining GT and 132 kV circuit.

## Reinforcement description

The current reinforcement proposal is to re-conductor the 132 kV circuits to Hawton BSP and install a third GT.



Constraint Season  
Winter and Summer



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

**2026 H1 Procurement**  
2024 H2 Procurement  
2024 H1 Signposting  
2023 H2 Signposting  
2023 H1 Signposting

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£4 / MWh	£2 / MWh	£1 / MWh	£0.77 / MWh	£0.51 / MWh
	28,914 MWh	54,602 MWh	92,391 MWh	146,842 MWh	220,426 MWh
Utilisation	£244 / MWh	£124 / MWh	£73 / MWh	£46 / MWh	£31 / MWh
	289 MWh	546 MWh	924 MWh	1,468 MWh	2,204 MWh



For more information, see the **Staythorpe 132 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Ilkeston



DNOA Decision  
**Flexibility**

## Constraint description

Ilkeston primary is fed via two transformers, which are currently limiting the firm capacity of the site. Under an N-1 condition (loss of one transformer) the load would be fully applied to the remaining transformer, potentially causing it to overload.

## Reinforcement description

The current reinforcement proposal is to replace the two transformers and the 11 kV switchboard at Ilkeston.




Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

- 2026 H1** Procurement
- 2024 H2** Procurement
- 2024 H1** Procurement
- 2023 H2** Procurement
- 2023 H1** Procurement
- 2022 H2** Procurement
- 2022 H1** Procurement
- 2021 H2** Procurement

**Time to Reinforce:** 2.5 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£5 / MWh	£3 / MWh	£2 / MWh	£0.97 / MWh	£0.73 / MWh
	7,445 MWh	14,312 MWh	21,992 MWh	37,011 MWh	49,015 MWh
Utilisation	£328 / MWh	£151 / MWh	£98 / MWh	£58 / MWh	£44 / MWh
	74 MWh	143 MWh	220 MWh	370 MWh	490 MWh



For more information, see the **Stanton 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Irthlingborough Primary



DNOA Decision

**Signposting**

## Constraint description

Irthlingborough primary has two 33/11 kV transformers. Following an arranged or fault outage on one of the transformers the full site demand is picked up by the other transformer.

## Reinforcement description

Upgrading both 33/11 kV transformers at Irthlingborough primary would add significant capacity. It would also require minimal 33 kV circuit works (as Irthlingborough primary is located at the same site as Irthlingborough BSP).



Constraint Season  
Winter and Summer



Outage Type  
N-1



## Justification for decision

No flexibility requirement under Holistic Transition until 2030.

## Constraint management timeline

2026 H1 **Signposting**

2024 H2 Signposting

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility volumes per year under Holistic Transition:

2026	2027	2028	2029	2030
0.0 MWh	0.0 MWh	0.0 MWh	0.0 MWh	0.7 MWh



For more information, see the **Wellingborough and Irthlingborough 33 kV NDP report:** [dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Irthlingborough to Higham Ferrers



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

For an arranged or fault outage on the Irthlingborough BSP to Rushden T2 33 kV circuit the circuit from Irthlingborough to Higham Ferrers Switching Station could overload based on demand projections.

## Reinforcement description

Upgrading the lowest rated section of 33 kV circuit between Irthlingborough BSP and Higham Ferrers Switching Station would add around 10 MVA of capacity to help alleviate this constraint.



Constraint Season  
Winter and Summer



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

**2026 H1 Procurement**

**2024 H2 Procurement**

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£0.34 / MWh	£0.10 / MWh	£0.06 / MWh	£0.04 / MWh	£0.03 / MWh
	32,011 MWh	63,300 MWh	104,953 MWh	150,770 MWh	204,828 MWh
Utilisation	£21 / MWh	£6 / MWh	£4 / MWh	£2 / MWh	£2 / MWh
	320 MWh	633 MWh	1,050 MWh	1,508 MWh	2,048 MWh



For more information, see the **Wellingborough and Irthlingborough 33 kV NDP report:** [dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Kenilworth Primary

 DNOA Decision  
**Signposting**

## Constraint description

Kenilworth is a 33/11 kV primary supplied from Warwick and Coventry West Bulk Supply Points. Both 33 kV circuits overload following the loss of the other. The transformers are already 20/40 MVA units.

## Reinforcement description

Reinforce the 33 kV circuits from Warwick and Coventry West Bulk Supply Points to Kenilworth primary.



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

No flexibility requirement under Holistic Transition until 2029.

## Constraint management timeline

2026 H1 Signposting

**Time to Reinforce:** 2.5 years

**Constraint Type:** Demand

## Estimated flexibility volumes per year under Holistic Transition:

2026	2027	2028	2029	2030
0.0 MWh	0.0 MWh	0.0 MWh	0.5 MWh	35 MWh



For more information, see the **Warwick and Harbury 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Langrick Primary



## Constraint description

Langrick primary has a single transformer which limits its firm capacity under intact running conditions. Under N-1 outage conditions the site also relies on 11 kV backfeeds to maintain supply.

## Reinforcement description

Replacing the primary transformer at Langrick with a 12/24 MVA unit would resolve this constraint, and a second 12/24 MVA transformer could then be installed at a later date to add further capacity.



Constraint Season  
Winter and Summer



Outage Type  
Intact

## Justification for decision

Detailed assessment of 11 kV network capacity and transformer capability has unlocked greater capacity, removing this constraint.

## Constraint management timeline

2026 H1 None

2024 H2 Procurement

Time to Reinforce: N/A

Constraint Type: Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	-	-	-	-	-
Utilisation	-	-	-	-	-



For more information, see the **Boston 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Lawford Primary



DNOA Decision  
**Flexibility**

## Constraint description

Lawford is a 33/11 kV primary substation supplied from Rugby Bulk Supply Point (BSP). Both transformers are expected to exceed their thermal capacity following an outage on the other. The 33 kV circuits would become the next limiting factor.

## Reinforcement description

Uprate both 33/11 kV transformers, the 11 kV switchboard and install two new 33 kV circuits from Rugby BSP (approximately 2 km each).




Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H2 Signposting

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£44 / MWh 1,686 MWh	£19 / MWh 3,564 MWh	£10 / MWh 6,907 MWh	£6 / MWh 10,798 MWh	£4 / MWh 15,963 MWh
Utilisation	£2,634 / MWh 17 MWh	£1,167 / MWh 36 MWh	£602 / MWh 69 MWh	£385 / MWh 108 MWh	£261 / MWh 160 MWh



For more information, see the **Daventry, Rugby and Pailton 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Leicester East to Salutation Tee

 DNOA Decision  
**Signposting**

## Constraint description

Thermal overloads are projected to occur on the 33 kV circuits between Leicester East Bulk Supply Point (BSP) and the Salutation Tee for the loss of the other circuit.

## Reinforcement description

Uprate both transformers and 33kV circuits to Salutation primary.



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

No flexibility requirement under Holistic Transition until 2029.

## Constraint management timeline

2026 H1 Signposting

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility volumes per year under Holistic Transition:

2026	2027	2028	2029	2030
0.0 MWh	0.0 MWh	0.0 MWh	3 MWh	90 MWh



For more information, see the **The Leicester Group 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Loughborough



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

For certain arranged outages on the Enderby network, Coalville Bulk Supply Point (BSP) is transferred to Ratcliffe Grid Supply Point (GSP). A subsequent fault on one of the Ratcliffe-Loughborough tee 132 kV circuits can cause an overload on the other circuit.

## Reinforcement description

The reinforcement proposal is to uprate the 132 kV circuits from Ratcliffe to Loughborough tee.



Constraint Season  
Winter and Summer



Outage Type  
N-2



## Justification for decision

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

## Constraint management timeline

2026 H1 Procurement  
 2024 H2 Procurement  
 2024 H1 Procurement  
 2023 H2 Procurement  
 2023 H1 Procurement  
 2022 H2 Procurement  
 2022 H1 Procurement  
 2021 H2 Procurement  
 2021 H1 Procurement

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£0.12 / MWh	£0.10 / MWh	£0.09 / MWh	£0.08 / MWh	£0.07 / MWh
	773,641 MWh	879,972 MWh	990,530 MWh	1,116,649 MWh	1,247,080 MWh
Utilisation	£7 / MWh	£6 / MWh	£5 / MWh	£5 / MWh	£4 / MWh
	7,736 MWh	8,800 MWh	9,905 MWh	11,166 MWh	12,471 MWh



For more information, see the **Ratcliffe 132 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Lutterworth Primary



DNOA Decision

**Signposting**

## Constraint description

Lutterworth is a 33/11 kV primary substation supplied from Pailton Bulk Supply Point (BSP). Both transformers are expected to exceed their thermal capacity following an outage on the other. The 33 kV circuits would become the next limiting factor.

## Reinforcement description

Uprate both 33/11 kV transformers and the 11 kV switchboard.



Constraint Season  
Winter and Summer



Outage Type  
N-1



## Justification for decision

No flexibility requirement under Holistic Transition until 2029.

## Constraint management timeline

2026 H1 **Signposting**

2024 H2 Signposting

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility volumes per year under Holistic Transition:

2026	2027	2028	2029	2030
0.0 MWh	0.0 MWh	0.0 MWh	0.1 MWh	3 MWh



For more information, see the **Daventry, Rugby and Pailton 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Mansfield Primary



DNOA Decision  
**Flexibility**

## Constraint description

Mansfield is a 132/33 kV Bulk Supply Point supplied from Chesterfield Grid Supply Point via a pair of 132 kV circuits. Mansfield primary is located within the same substation and comprises two 33/11 kV transformers. Overloads are expected on the primary transformers following an outage on the other.

## Reinforcement description

Install two 132/11 kV GTs and move the existing Mansfield primary demand. The proposed reinforcement scheme also resolves future constraints at Mansfield BSP.



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H2 Signposting

**Time to Reinforce:** 3.5 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£25 / MWh	£9 / MWh	£4 / MWh	£3 / MWh	£2 / MWh
	2,913 MWh	7,880 MWh	15,931 MWh	26,867 MWh	41,659 MWh
Utilisation	£1,524 / MWh	£528 / MWh	£261 / MWh	£155 / MWh	£100 / MWh
	29 MWh	79 MWh	159 MWh	269 MWh	417 MWh



For more information, see the **Annesley, Mansfield and Clipstone 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Olney Primary

 DNOA Decision  
**Flexibility**

## Constraint description

Olney primary has two 33/11 kV transformers. Following an arranged or fault outage on one of the transformers the full site demand is picked up by the other transformer.

## Reinforcement description

Upgrading both 33/11 kV transformers at Olney primary would free up some capacity. Further capacity could be released through 33 kV circuit works (which could synergise with the overall plan for the Northampton 33 kV network).



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H2 Signposting

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£15 / MWh 2,713 MWh	£9 / MWh 3,903 MWh	£7 / MWh 5,530 MWh	£5 / MWh 7,848 MWh	£3 / MWh 12,140 MWh
Utilisation	£899 / MWh 27 MWh	£553 / MWh 39 MWh	£390 / MWh 55 MWh	£275 / MWh 78 MWh	£178 / MWh 121 MWh



For more information, see the **The Northampton Group NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Polesworth Primary



DNOA Decision  
**Flexibility**

## Constraint description

Polesworth primary has two 33/11 kV transformers. Following an arranged or fault outage on one of the transformers the full site demand is picked up by the other transformer.

## Reinforcement description

Upgrading both transformers at Polesworth primary to 12/24 MVA units would alleviate this constraint. To free up capacity at Polesworth 33 kV circuit works would also be required (as discussed in the Tamworth to Polesworth and Atherstone constraint).



Constraint Season  
Winter and Summer



Outage Type  
N-1



## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H2 Signposting

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£10 / MWh	£4 / MWh	£2 / MWh	£1 / MWh	£0.96 / MWh
	2,807 MWh	5,643 MWh	10,897 MWh	17,545 MWh	25,550 MWh
Utilisation	£624 / MWh	£260 / MWh	£135 / MWh	£84 / MWh	£58 / MWh
	28 MWh	56 MWh	109 MWh	175 MWh	255 MWh



For more information, see the **Tamworth Grid and Tamworth Town 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Quorn

## Constraint description

Quorn primary has two 33/11 kV transformers. Its firm capacity is limited by both its 33/11 kV transformers. Predicted demand growth is greater than the firm capacity of the site.

## Reinforcement description

The reinforcement proposal is to uprate the transformers, 11 kV board and sections of the 33 kV infeed circuits.



Constraint Season  
Winter and Summer



Outage Type  
N-1



DNOA Decision  
**Flexibility**

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

**2026 H1 Procurement**  
2024 H2 Signposting  
2024 H1 Signposting  
2023 H2 Signposting  
2023 H1 Signposting

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£4 / MWh 6,923 MWh	£2 / MWh 10,570 MWh	£2 / MWh 15,969 MWh	£0.99 / MWh 24,838 MWh	£0.67 / MWh 36,789 MWh
Utilisation	£253 / MWh 69 MWh	£139 / MWh 106 MWh	£92 / MWh 160 MWh	£59 / MWh 248 MWh	£40 / MWh 368 MWh



For more information, see the **Loughborough 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Spilsby Primary



DNOA Decision  
**Flexibility**

## Constraint description

Spilsby primary has two 33/11 kV transformers. Following an arranged or fault outage on one of the transformers the full site demand is picked up by the other transformer.

## Reinforcement description

Replace the existing 33/11 kV transformers with higher rated units.



Constraint Season  
Winter and Summer



Outage Type  
N-1



## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£14 / MWh 2,019 MWh	£8 / MWh 3,040 MWh	£5 / MWh 4,747 MWh	£3 / MWh 7,158 MWh	£2 / MWh 13,347 MWh
Utilisation	£868 / MWh 20 MWh	£484 / MWh 30 MWh	£310 / MWh 47 MWh	£205 / MWh 72 MWh	£110 / MWh 133 MWh



For more information, see the **Skegness 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Stamford



DNOA Decision

## Reinforce with Flexibility

### Constraint description

Wittering is backed at 11 kV to Stamford primary for a number of arranged outages, the most onerous of which is an outage on the main 1 33 kV busbar at Stamford (which also takes out one of the transformers at Stamford). The N-1 condition is the arranged outage on the main 1 busbar at Stamford causing an overload on the remaining primary transformer at Stamford.

### Reinforcement description

The current reinforcement proposal is to install a third 33/11 kV transformer at Stamford primary, along with upgrading the 33 kV board at Stamford Bulk Supply Point (BSP).



Constraint Season  
Winter and Summer



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

2026 H1 Procurement

2024 H2 Procurement

2024 H1 Procurement

Time to Reinforce: 3 years

Constraint Type: Demand

### Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£3 / MWh	£2 / MWh	£1 / MWh	£0.98 / MWh	£0.72 / MWh
	23,513 MWh	32,756 MWh	44,104 MWh	55,807 MWh	75,751 MWh
Utilisation	£152 / MWh	£100 / MWh	£74 / MWh	£59 / MWh	£43 / MWh
	235 MWh	328 MWh	441 MWh	558 MWh	758 MWh



For more information, see the **Bourne and Stamford 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Stony Stratford BSP



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

Stony Stratford BSP has two 132/33 kV Grid Transformers (GTs) which are projected to be constrained due to demand growth for an N-1 (fault or arranged outage on either GT).

## Reinforcement description

The reinforcement solution to this constraint will likely involve 33 kV works to move some of the primaries fed from Stony Stratford BSP to nearby BSPs.



Constraint Season  
Winter



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

**2026 H1 Procurement**

**2024 H2 Procurement**

**Time to Reinforce:** 4 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£1 / MWh	£0.78 / MWh	£0.55 / MWh	£0.41 / MWh	£0.32 / MWh
	69,690 MWh	105,867 MWh	151,630 MWh	203,793 MWh	255,329 MWh
Utilisation	£75 / MWh	£47 / MWh	£33 / MWh	£24 / MWh	£19 / MWh
	697 MWh	1,059 MWh	1,516 MWh	2,038 MWh	2,553 MWh



For more information, see the **East Claydon 132 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Tamworth to Polesworth and Atherstone



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

For an arranged or fault outage on the main 1 33 kV busbar at Tamworth Grid BSP the Tamworth to Polesworth main 2 33 kV circuit could overload. Constraints are also seen for outages on the other circuits to Atherstone and Polesworth.

## Reinforcement description

A new circuit to Polesworth primary (or new circuits to Atherstone primary) would allow the two primaries to be unstitched, alleviating this constraint. These circuit works would need to be carried out in conjunction with reinforcement at both primaries (as discussed for the Polesworth Primary and Atherstone constraints) to free up capacity.



Constraint Season  
Winter and Summer



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

**2026 H1 Procurement**

**2024 H2 Procurement**

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£3 / MWh 6,448 MWh	£1 / MWh 15,376 MWh	£0.54 / MWh 29,139 MWh	£0.36 / MWh 43,777 MWh	£0.26 / MWh 61,001 MWh
Utilisation	£189 / MWh 64 MWh	£61 / MWh 154 MWh	£32 / MWh 291 MWh	£21 / MWh 438 MWh	£15 / MWh 610 MWh



For more information, see the **Tamworth Grid and Tamworth Town 33 kV NDP report:** [dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Towcester Primary



## Constraint description

Towcester primary has three 33/11 kV transformers. Following an arranged or fault outage on one of the transformers the full site demand is picked up by the other transformers.

## Reinforcement description

The reinforcement solution involved work on the 11 kV board so that demand is shared more evenly across the transformers.



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Reinforcement works have been completed, resolving this constraint.

## Constraint management timeline

2026 H1 None

2024 H2 Procurement

Time to Reinforce: N/A

Constraint Type: Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	-	-	-	-	-
Utilisation	-	-	-	-	-



For more information, see the **Brackley and Stony Stratford 33 kV NDP report:** [dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Victoria Road Primary



DNOA Decision

**Reinforce with Flexibility**

## Constraint description

Victoria Road primary has two 33/11 kV transformers. Following an arranged or fault outage on one of the transformers the full site demand is picked up by the other transformer causing it to be overloaded.

## Reinforcement description

Upgrading both 33/11 kV transformers at Victoria Road primary would alleviate this constraint.



Constraint Season  
Winter and Summer



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

**2026 H1 Procurement**

**2024 H2 Procurement**

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£0.00 / MWh	£83 / MWh	£55 / MWh	£16 / MWh	£16 / MWh
	0.0 MWh	8 MWh	443 MWh	1,552 MWh	1,555 MWh
Utilisation	£0.00 / MWh	£5,000 / MWh	£3,318 / MWh	£947 / MWh	£946 / MWh
	0.0 MWh	0.1 MWh	4 MWh	16 MWh	16 MWh



For more information, see the **Bradwell Abbey and Bletchley 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# West Bridgford



## Constraint description

West Bridgford has two 33/11 kV transformers each with a 20/28/35.2 MVA rating. For an arranged or fault outage on one of the transformers, the other picks up the full demand of the site.

## Reinforcement description

The reinforcement proposal is to upgrade both transformers and 33 kV infeed circuits.



Constraint Season  
Winter and Summer



Outage Type  
N-1

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

2024 H1 Signposting

**Time to Reinforce:** 3 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£5 / MWh	£3 / MWh	£2 / MWh	£2 / MWh	£1 / MWh
	12,732 MWh	22,824 MWh	30,667 MWh	36,986 MWh	53,374 MWh
Utilisation	£316 / MWh	£164 / MWh	£122 / MWh	£101 / MWh	£70 / MWh
	127 MWh	228 MWh	307 MWh	370 MWh	534 MWh



For more information, see the **The Nottingham Group 33 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Wicken Primary



## Constraint description

Wicken primary has two 33/11 kV transformers. Following an arranged or fault outage on one of the transformers the full site demand is picked up by the other transformer causing it to be overloaded.

## Reinforcement description

Upgrading the transformers will resolve this constraint.



Constraint Season  
Winter and Summer



Outage Type  
N-1



## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

2026 H1 Procurement

**Time to Reinforce:** 2 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£9 / MWh 3,418 MWh	£4 / MWh 6,445 MWh	£2 / MWh 10,474 MWh	£2 / MWh 16,030 MWh	£1 / MWh 19,713 MWh
Utilisation	£512 / MWh 34 MWh	£228 / MWh 64 MWh	£140 / MWh 105 MWh	£92 / MWh 160 MWh	£75 / MWh 197 MWh



For more information, see the **Brackley and Stony Stratford 33 kV NDP report:** [dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

# Wigston BSP

## Constraint description

Wigston BSP has two 132/33 kV Grid Transformers (GTs) which are projected to be constrained due to demand growth for an N-1 (fault or arranged outage on either GT).

## Reinforcement description

Upgrading both 132/33 kV GTs at Wigston BSP would alleviate this constraint (with the next limiting factor being the N-2 restoration of the site).



Constraint Season  
Winter and Summer



Outage Type  
N-1



DNOA Decision  
**Flexibility**

## Justification for decision

Flexibility procurement is required to ensure the needs of the network are met.

## Constraint management timeline

**2026 H1 Procurement**

**2024 H2 Signposting**

**Time to Reinforce:** 3.5 years

**Constraint Type:** Demand

## Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£6 / MWh	£3 / MWh	£2 / MWh	£1 / MWh	£0.80 / MWh
	16,508 MWh	29,394 MWh	46,189 MWh	71,547 MWh	111,534 MWh
Utilisation	£341 / MWh	£182 / MWh	£116 / MWh	£75 / MWh	£48 / MWh
	165 MWh	294 MWh	462 MWh	715 MWh	1,115 MWh



For more information, see the **Enderby 132 kV NDP report:**  
[dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan](https://dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan)

## 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 NESO.

.....

### Justification for decision

Multiple triggers for investment across the transmission and distribution network, including fault level constraints which cannot be managed through flexibility services.

.....

### Constraint Information

**Outage Type** N-1 / N-2  
**Constraint Type** Thermal & Fault Level



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



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 across the transmission and distribution networks which cannot be mitigated using flexibility.

.....

### Constraint Information

**Outage Type** N-2  
**Constraint Type** Thermal



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



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



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



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 Winstar 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



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



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



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



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



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



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

<b>Outage Type</b>	N-1
<b>Constraint Type</b>	Thermal



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

<b>Outage Type</b>	N-1
<b>Constraint Type</b>	Thermal & Fault Level



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.

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### Justification for decision

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

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### Constraint Information

<b>Outage Type</b>	N-1
<b>Constraint Type</b>	Security of Supply



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 to upgrade both transformers and 33 kV circuits to Wise Street.

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### Justification for decision

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

.....

### Constraint Information

**Outage Type** N-1  
**Constraint Type** Thermal



DNOA Decision  
**Reinforce**

## Newport Pagnell

### Scheme description

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

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### Justification for decision

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

.....

### Constraint Information

**Outage Type** N-1  
**Constraint Type** Thermal



DNOA Decision  
**Reinforce**

