

Abham to Totnes Tee

 DNOA Decision
Reinforce with Flexibility

Constraint description

The 132 kV cable circuits between Abham GSP & Totnes Tee become overloaded under N-2 outage conditions.

Reinforcement description

Removal of the Totnes Tee by laying additional 132 kV cable circuits between Abham GSP and Totnes tee along with adopting a split 132 kV network between Abham & Landulph GSPs.



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

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	£0.88 / MWh	£0.68 / MWh	£0.54 / MWh	£0.43 / MWh
	149,873 MWh	206,467 MWh	267,664 MWh	334,033 MWh	422,325 MWh
Utilisation	£75 / MWh	£53 / MWh	£41 / MWh	£33 / MWh	£26 / MWh
	1,499 MWh	2,065 MWh	2,677 MWh	3,340 MWh	4,223 MWh



For more information, see the **South Devon NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Bradley Lane Primary



DNOA Decision

Reinforce with Flexibility

Constraint description

Bradley Lane primary is a two transformer primary. For an N-1 outage for the loss of one of the transformers, the remaining transformer will become overloaded.

Reinforcement description

Review of transformer ratings and replace both transformers with larger units if necessary.



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: 3 years

Constraint Type: Demand

Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£41 / MWh 1,031 MWh	£16 / MWh 2,367 MWh	£8 / MWh 4,451 MWh	£5 / MWh 8,071 MWh	£3 / MWh 14,442 MWh
Utilisation	£2,462 / MWh 10 MWh	£954 / MWh 24 MWh	£507 / MWh 45 MWh	£280 / MWh 81 MWh	£156 / MWh 144 MWh



For more information, see the **Newton Abbot BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Camborne Treswithian



DNOA Decision

Reinforce with Flexibility

Constraint description

Camborne Treswithian is a single 33/11 kV primary substation. The site's primary transformer is rated 5 MVA, and the backfeed capacity is 7.5 MVA. The constraint is where peak demand is exceeding the primary transformer capacity.

Reinforcement description

Proposal is to add second transformer and new switchboard.



Constraint Season
Winter and Summer



Outage Type
Intact



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

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 2,872 MWh	£5 / MWh 4,187 MWh	£4 / MWh 5,806 MWh	£3 / MWh 7,987 MWh	£2 / MWh 10,896 MWh
Utilisation	£544 / MWh 29 MWh	£306 / MWh 42 MWh	£221 / MWh 58 MWh	£161 / MWh 80 MWh	£118 / MWh 109 MWh



For more information, see the **Camborne BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Clevedon Primary

 DNOA Decision
Reinforce with Flexibility

Constraint description

Clevedon has two transformers; there is an overload for the loss of either one.

Reinforcement description

Replace the transformers with larger units.



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: 2 years

Constraint Type: Demand

Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£0.00 / MWh	£0.00 / MWh	£83 / MWh	£10 / MWh	£4 / MWh
	0.0 MWh	0.0 MWh	113 MWh	2,352 MWh	6,620 MWh
Utilisation	£0.00 / MWh	£0.00 / MWh	£5,000 / MWh	£625 / MWh	£222 / MWh
	0.0 MWh	0.0 MWh	1 MWh	24 MWh	66 MWh



For more information, see the **Portishead BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Core Hill Primary

 DNOA Decision
Remove

Constraint description

Core Hill primary is a two transformer primary. In an N-1 outage for the loss of one of the transformers, the remaining transformer will be overloaded in the future.

Reinforcement description

Replace both transformers in conjunction with an asset replacement scheme with larger units.



Constraint Season
Winter



Outage Type
N-1

Justification for decision

Reinforcement works have been completed, resolving this constraint.

Constraint management timeline

2026 H1 None
2024 H2 Procurement
2024 H1 Signposting

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 **Exeter Main BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Edgarley Primary



DNOA Decision
Remove

Constraint description

Edgarley primary is a single 33/11 kV transformer site with a firm capacity reliant on 11 kV interconnection. This firm capacity is expected to be exceeded for an outage of the transformer.

Reinforcement description

Installing a second primary transformer, two additional 33 kV Circuit Breakers (CBs), and extending the 11 kV board.



Constraint Season
Winter



Outage Type
N-1



Justification for decision

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

Constraint management timeline

2026 H1 None
2024 H2 Procurement
2024 H1 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 **Street BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Tavistock and Yelverton

 DNOA Decision
Flexibility

Constraint description

Tavistock and Yelverton are fed from a 33kV 'ring' from Ernesettle BSP. In the event of the loss of one of the infeeding circuits the remaining circuit overloads

Reinforcement description

Re-build/overlay the 33kV circuits between Ernesettle BSP to Tavistock Primary and Merrivale Primary to Yelverton Primary



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: 2.5 years

Constraint Type: Demand

Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£83 / MWh 133 MWh	£33 / MWh 2,384 MWh	£10 / MWh 7,645 MWh	£4 / MWh 17,838 MWh	£3 / MWh 31,149 MWh
Utilisation	£5,000 / MWh 1 MWh	£1,980 / MWh 24 MWh	£618 / MWh 76 MWh	£265 / MWh 178 MWh	£152 / MWh 311 MWh



For more information, see the **Ernesettle BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Falmouth Bickland Hill Primary



DNOA Decision

Reinforce with Flexibility

Constraint description

Falmouth Bickland Hill primary capacity for a loss of one transformer.

Reinforcement description

Replace existing units with 12/24 MVA units.



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 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	£23 / MWh	£8 / MWh	£4 / MWh	£2 / MWh	£1 / MWh
	1,249 MWh	3,220 MWh	6,718 MWh	12,496 MWh	20,236 MWh
Utilisation	£1,402 / MWh	£456 / MWh	£219 / MWh	£118 / MWh	£73 / MWh
	12 MWh	32 MWh	67 MWh	125 MWh	202 MWh



For more information, see the **Rame BSP NDP report:**

dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Feeder Road A Primary



DNOA Decision

Reinforce with Flexibility

Constraint description

Loss of two transformers at Feeder Road A coupled with lack of 11 kV busbars.

Reinforcement description

Reinforcement works include construction of a new 132/11/11 kV primary and new 11 kV Switchboard.



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	£1 / MWh	£0.58 / MWh	£0.55 / MWh	£0.44 / MWh	£0.36 / MWh
	73,210 MWh	151,948 MWh	176,459 MWh	201,159 MWh	229,933 MWh
Utilisation	£74 / MWh	£35 / MWh	£33 / MWh	£27 / MWh	£22 / MWh
	732 MWh	1,519 MWh	1,765 MWh	2,012 MWh	2,299 MWh



For more information, see the **Feeder Road BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Feeder Road BSP



DNOA Decision

Reinforce with Flexibility

Constraint description

For the loss of two GTs at Feeder Road BSP the remaining GTs are projected to overload.

Reinforcement description

Reinforcement includes the construction of a 132 kV busbar at Feeder Road BSP replacement of Feeder Road 33 kV busbar section and establishing Feeder Road 132/11/11 kV primary new substation.



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

Time to Reinforce: 3 years

Constraint Type: Demand

Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£2 / MWh	£0.95 / MWh	£0.72 / MWh	£0.57 / MWh	£0.45 / MWh
	117,000 MWh	240,634 MWh	316,211 MWh	402,122 MWh	510,065 MWh
Utilisation	£120 / MWh	£57 / MWh	£43 / MWh	£34 / MWh	£27 / MWh
	1,170 MWh	2,406 MWh	3,162 MWh	4,021 MWh	5,101 MWh



For more information, see the **MISSING NDP report:**

dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Gunnislake



DNOA Decision
Remove

Constraint description

Gunnislake primary is primary substation with two 5 MVA transformers. These transformers do not have cyclic rating capabilities and as such are limited to the sustained rating of 5 MVA for all seasons. An N-1 condition for the loss of one of the 33/11 kV transformers at Gunnislake primary would overload the remaining transformer at peak loading.

Reinforcement description

Uprate both transformers to 7.5/15 MVA units.



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
 2024 H1 Procurement
 2023 H2 Procurement
 2023 H1 Procurement
 2022 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 **Landulph St Germans BSP group NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Hayle Local Primary



DNOA Decision

Signposting

Constraint description

Hayle Local primary is a two transformer primary. In an N-1 outage for the loss of one of the transformers, the remaining transformer will be overloaded in the future.

Reinforcement description

Construction of a new primary located near Hayle Local primary and Hayle 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

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	0.0 MWh	8 MWh



For more information, see the **Hayle BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Helston Primary



DNOA Decision

Signposting

Constraint description

Helston primary is a two transformer primary. In an N-1 outage for the loss of one of the transformers, the remaining transformer will be overloaded in the future.

Reinforcement description

Install a third 33/11kV primary transformer



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	0.1 MWh	8 MWh



For more information, see the **Rame BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Hemyock



DNOA Decision

Reinforce with Flexibility

Constraint description

Hemyock primary is a single 33/11 kV transformer site with firm capacity reliant on 11 kV interconnection. The capacity is expected to be exceeded for an outage of the transformer.

Reinforcement description

Installing a second primary transformer and new 11 kV board.



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 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	£11 / MWh 1,845 MWh	£6 / MWh 2,713 MWh	£5 / MWh 3,503 MWh	£4 / MWh 4,400 MWh	£3 / MWh 5,808 MWh
Utilisation	£678 / MWh 18 MWh	£357 / MWh 27 MWh	£277 / MWh 35 MWh	£220 / MWh 44 MWh	£167 / MWh 58 MWh



For more information, see the **Tiverton BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Keynsham East Primary



DNOA Decision

Reinforce with Flexibility

Constraint description

Keynsham East primary is a two transformer primary, with the firm capacity being limited by the T1 transformer. An N-1 fault for the loss of the T2 transformer means the whole load must be supplied by T1.

Reinforcement description

The proposed reinforcement is to replace the T1 transformer with a larger unit.



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	£83 / MWh 2 MWh	£25 / MWh 398 MWh	£8 / MWh 1,218 MWh	£5 / MWh 2,165 MWh	£3 / MWh 3,961 MWh
Utilisation	£5,000 / MWh 0.0 MWh	£1,494 / MWh 4 MWh	£488 / MWh 12 MWh	£274 / MWh 22 MWh	£150 / MWh 40 MWh



For more information, see the **Radstock BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Merrivale Primary

Constraint description

Merrivale has two transformers; there is an overload for the loss of either one.

Reinforcement description

Replace the transformers with larger units.



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

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	£35 / MWh	£13 / MWh	£7 / MWh	£5 / MWh	£3 / MWh
	836 MWh	1,917 MWh	3,267 MWh	5,048 MWh	7,808 MWh
Utilisation	£2,094 / MWh	£767 / MWh	£450 / MWh	£291 / MWh	£188 / MWh
	8 MWh	19 MWh	33 MWh	50 MWh	78 MWh



For more information, see the **Ernesettle BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Mullion



DNOA Decision

Reinforce with Flexibility

Constraint description

Mullion is a single transformer site with firm capacity limited by 11 kV backfeeds. Recent studies suggest a constraint is present, based on the calculated firm capacity of 4 MVA.

Reinforcement description

Proposal is to add a second transformer, new 11 kV board and 33 kV circuit.



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 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	£49 / MWh	£34 / MWh	£25 / MWh	£19 / MWh	£13 / MWh
	1,585 MWh	2,140 MWh	2,859 MWh	3,771 MWh	5,379 MWh
Utilisation	£2,912 / MWh	£2,025 / MWh	£1,516 / MWh	£1,149 / MWh	£806 / MWh
	16 MWh	21 MWh	29 MWh	38 MWh	54 MWh



For more information, see the **Rame BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Portishead to Weston in Gordano



DNOA Decision

Signposting

Constraint description

A 33 kV circuit overload is predicted under intact conditions.

Reinforcement description

33 kV circuit reinforcement.



Constraint Season
Winter



Outage Type
Intact



Justification for decision

No flexibility requirement under Holistic Transition until 2029.

Constraint management timeline

2026 H1 **Signposting**

2024 H2 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	9 MWh	36 MWh



For more information, see the **Portishead BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Pyworthy to Stratton



DNOA Decision

Signposting

Constraint description

Pyworthy 27L5 to Stratton 1L5 circuit and Pyworthy 34L5 to Stratton 2L5 33kV circuit capacity.

Reinforcement description

Reconductor 16km of 33kV circuits.



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	1 MWh



For more information, see the **Pyworthy North Tawton BSP group NDP report:** dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Stentaway Primary

 DNOA Decision
Flexibility

Constraint description

In the event of a 33 kV busbar outage at Stentaway, transformer T2 becomes overloaded (due to loss of T1 at Stentaway & Plymstock South).

Reinforcement description

Installation of a second 33/11 kV transformer at Plymstock South.



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 years

Constraint Type: Demand

Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£1 / MWh	£0.43 / MWh	£0.30 / MWh	£0.22 / MWh	£0.18 / MWh
	16,511 MWh	27,902 MWh	40,179 MWh	53,617 MWh	67,397 MWh
Utilisation	£61 / MWh	£26 / MWh	£18 / MWh	£13 / MWh	£11 / MWh
	165 MWh	279 MWh	402 MWh	536 MWh	674 MWh



For more information, see the **Plymouth BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Taunton to Culmhead Tee


DNOA Decision
Reinforce with Flexibility

Constraint description

33 kV circuit overload under N-1 outage conditions.

Reinforcement description

33 kV circuit reinforcement.



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	£0.50 / MWh	£0.17 / MWh	£0.12 / MWh	£0.09 / MWh	£0.07 / MWh
	21,858 MWh	35,578 MWh	51,730 MWh	68,536 MWh	87,441 MWh
Utilisation	£30 / MWh	£10 / MWh	£7 / MWh	£5 / MWh	£4 / MWh
	219 MWh	356 MWh	517 MWh	685 MWh	874 MWh



For more information, see the **Taunton BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Tavistock Primary



DNOA Decision

Reinforce with Flexibility

Constraint description

Tavistock primary is a two transformer primary. In an N-1 outage for the loss of one of the transformers, the remaining transformer will become overloaded.

Reinforcement description

Install forced cooling or replace both transformers at Tavistock.



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	£1 / MWh	£0.75 / MWh	£0.56 / MWh	£0.43 / MWh	£0.34 / MWh
	23,360 MWh	32,550 MWh	43,814 MWh	56,774 MWh	71,399 MWh
Utilisation	£75 / MWh	£45 / MWh	£34 / MWh	£26 / MWh	£21 / MWh
	234 MWh	326 MWh	438 MWh	568 MWh	714 MWh



For more information, see the **Ernesettle BSP NDP report:**

dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Tiverton

 DNOA Decision
Reinforce with Flexibility

Constraint description

For an N-1 outage of either Grid Transformer (GT), the winter peak demands exceed the nameplate rating of the remaining GT.

Reinforcement description

Replace both GTs with larger units.



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: 3.5 years

Constraint Type: Demand

Estimated flexibility price and volumes per year under Holistic Transition:

	2026	2027	2028	2029	2030
Availability	£0.92 / MWh	£0.60 / MWh	£0.44 / MWh	£0.34 / MWh	£0.25 / MWh
	49,906 MWh	68,868 MWh	92,562 MWh	119,713 MWh	163,901 MWh
Utilisation	£55 / MWh	£36 / MWh	£27 / MWh	£21 / MWh	£15 / MWh
	499 MWh	689 MWh	926 MWh	1,197 MWh	1,639 MWh



For more information, see the **Tiverton BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Tiverton to Bridge Mills and Cullompton circuits

 DNOA Decision
Reinforce with Flexibility

Constraint description

Bridge Mills and Cullompton primaries are fed from Tiverton Bulk Supply Point (BSP) via a 33 kV ring, with connected 33 kV customers. An outage of one of the infeeds to the ring subsequently leads to low voltage on the 33 kV circuits.

Reinforcement description

Installing a new 33 kV cable circuit on one side of the ring to boost the voltage.



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
- 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	£0.00 / MWh 0.0 MWh	£83 / MWh 487 MWh			
Utilisation	£0.00 / MWh 0.0 MWh	£4,969 / MWh 5 MWh			



For more information, see the **Tiverton BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Weston Super Mare



DNOA Decision

Reinforce with Flexibility

Constraint description

Weston 132/33 kV Bulk Supply Point (BSP) has two transformers. The demand at the site exceeds the continuous rating of the transformers so for an N-1 scenario the remaining transformer would be overloaded.

Reinforcement description

Upgrading both Grid Transformers (GTs) at Weston.



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	£11 / MWh	£4 / MWh	£2 / MWh	£2 / MWh	£1 / MWh
	8,249 MWh	23,070 MWh	38,724 MWh	58,600 MWh	88,749 MWh
Utilisation	£682 / MWh	£232 / MWh	£138 / MWh	£91 / MWh	£60 / MWh
	82 MWh	231 MWh	387 MWh	586 MWh	887 MWh



For more information, see the **Weston BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Woodland Way Primary



DNOA Decision
Flexibility

Constraint description

Woodland Way Primary is a four 12/24 MVA transformer primary. An outage associated with the Feeder Road BSP 33 kV busbar would result in the loss of two of the four transformers at Woodland Way, overloading the remaining two in-service.

Reinforcement description

Upgrade two transformers and circuits to 20/40 MVA 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 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	£15 / MWh 1,894 MWh	£3 / MWh 7,749 MWh	£1 / MWh 17,956 MWh	£0.72 / MWh 33,801 MWh	£0.43 / MWh 56,814 MWh
Utilisation	£924 / MWh 19 MWh	£190 / MWh 77 MWh	£82 / MWh 180 MWh	£43 / MWh 338 MWh	£26 / MWh 568 MWh



For more information, see the **Feeder Road BSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Yeovil to Martock



DNOA Decision

Reinforce with Flexibility

Constraint description

Demand on the Yeovil 33 kV network exceeds the agreed supply capacity under N-1 conditions when demand is transferred into the Yeovil 33 kV group.

Reinforcement description

Build a new 33 kV circuit and carry out 33 kV circuit works to remove demand from the Yeovil 33 kV group.



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	£5 / MWh	£2 / MWh	£1 / MWh	£0.92 / MWh	£0.68 / MWh
	12,360 MWh	28,950 MWh	45,004 MWh	63,605 MWh	85,874 MWh
Utilisation	£307 / MWh	£121 / MWh	£78 / MWh	£55 / MWh	£41 / MWh
	124 MWh	290 MWh	450 MWh	636 MWh	859 MWh



For more information, see the **Axminster GSP NDP report:**
dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan

Weston to Lypstone Farm

Scheme description

There is a 33 kV circuit overload under N-1, it is proposed to carry out 33 kV reinforcement to resolve this.

Justification for decision

The zone is entirely nested within Weston BSP, and it is therefore not possible in this tranche to procure and dispatch flexibility.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision

Reinforce

St Germans to Liskeard Ring

Scheme description

For an N-1 outage of one of the circuits that feeds the group or a fault on main 1 or 2 at St Germans the remaining circuit could overload. Reinforcement solution includes CB work to allow for reconfiguration and upgrading the 33 kV circuit.

Justification for decision

Flexibility is not suitable here due to the ring arrangement with varying sensitivity factors.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision

Reinforce

Exeter Main to Exeter City

Scheme description

Constraint present due to 132 kV tower line clearance infringement (along the Exeter Main 905 feeder) with an 11 kV overhead line. Reinforcement solution is to divert the 11 kV span.

Justification for decision

Flexibility is not suitable here due to the safety concerns of the constraint.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision

Reinforce



Fraddon to Newquay Trevamper

Scheme description

An N-1 condition for the loss of one of the 33 kV circuits to Newquay Trevamper/Trencreek primaries heavily loads the remaining circuit. Reinforcement solution is to reconductor both circuits from Fraddon to Newquay Trevamper and Newquay Trencreek along with 33 kV works.

Justification for decision

Flexibility is not suitable here as it introduces Power Quality constraints and protection restrictions.

Constraint Information

Outage Type N-1
Constraint Type Thermal and Voltage



Witheridge

Scheme description

Demand growth takes the 11 kV backfeeds over their capacity. Reinforcement solution is to add a new transformer and circuit along with a replacement switchboard at Witheridge.

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint.

Constraint Information

Outage Type N-1
Constraint Type Thermal



Exminster Primary

Scheme description

Demand growth takes the 11 kV backfeeds over their capacity. Reinforcement solution construct a new primary substation to accommodate the demand growth.

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint.

Constraint Information

Outage Type N-1
Constraint Type Thermal



Alverdiscott GSP and K route

Scheme description

Several constraints have been identified in this area including GT overloads at East Yelland, Barnstaple and St Tudy BSPs. Reinforcement solution is a new GSP south of Pyworthy and a new BSP on the K route.

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint with varying sensitivity factors.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce

Iron Acton to Seabank

Scheme description

Seabank and Bradley Stoke BSPs are fed via two 132 kV circuits from Iron Acton GSP. For N-2 conditions, back energisation could lead to operational, earthing and safety risks. Reinforcement option is to carry 132 kV works and reconfigurations.

Justification for decision

Flexibility is not suitable here due to safety concerns, and it does not resolve the earthing and operational constraints.

Constraint Information

Outage Type N-2
Constraint Type Thermal



DNOA Decision
Reinforce

Barnstaple BSP

Scheme description

The winding temperature indicator at Barnstaple Bulk Supply Point (BSP) is in need of replacing to alleviate an N-1 constraint for the loss of a transformer.

Justification for decision

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

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce



Alverdiscott to East Yelland and Barnstaple

Scheme description

Two circuits supplying the group are connected to the same busbar. For an N-2 outage the entire group demand is lost and interconnectivity is insufficient to restore it to meet P2 requirements. Reinforcement solution includes new BSP on the K route and new 132 kV circuit.

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Justification for decision

Flexibility is not suitable here due to the N-2 loss of supply constraint.

.....

Constraint Information

Outage Type N-2
Constraint Type Security of Supply



DNOA Decision
Reinforce

Penryn / Falmouth Bickland Hill / Falmouth Dock Ring

Scheme description

A busbar outage taking out a circuit supplying the group overloads one of the remaining circuits. The solution is to reconductor the circuits and reconfigure to allow for a split arrangement during outages. Alternatively a new circuit to Falmouth Bickland Hill could be constructed.

.....

Justification for decision

Flexibility is not suitable here due to the ring arrangement with varying sensitivity factors.

.....

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce

Feeder Road to Bedminster and Bower Ashton

Scheme description

One circuit supplies both Bedminster and Bower. For an N-2 condition this circuit overloads. Proposal is to separate these two primaries by laying 33 kV cable between BSP and the circuit intersection point.

.....

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint with varying sensitivity factors.

.....

Constraint Information

Outage Type N-2
Constraint Type Thermal



DNOA Decision
Reinforce



Hayle to Penzance

Scheme description

An N-1 fault on the Main 1 busbar at Hayle overloads several of the 33 kV circuits, and lead to low voltage constraints. Reinforcement solution is to bring a 132 kV circuit to Penzance and establish a BSP there.

.....

Justification for decision

Flexibility is not suitable here due to the meshed network, varying sensitivity factors and voltage constraints.

.....

Constraint Information

Outage Type N-1
Constraint Type Thermal and Voltage



DNOA Decision
Reinforce

Exeter City to Folly Bridge Ring

Scheme description

An N-1 outage of one of the infeeds (or a busbar) overloads one of the other two infeeds. Reinforcement solution is to construct a new 33 kV circuit from Exeter City BSP to create an additional infeed into the ring.

.....

Justification for decision

Flexibility is not suitable here due to the ring arrangement with varying sensitivity factors.

.....

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce

East Yelland to Penn Hill Tee

Scheme description

For an N-1 outage on one of the four circuits that supply the group, the circuit between East Yelland and Penn Hill Tee potentially overloads. The reinforcement solution is to uprate this circuit.

.....

Justification for decision

Flexibility is not suitable here due to the ring arrangement with varying sensitivity factors.

.....

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce



Bridgwater to Bath Road Circuit

Scheme description

There is a 33 kV circuit overload under N-1, it is proposed to install an additional 33 kV circuit between Bridgwater and Bath Road to resolve this.

Justification for decision

Flexibility has been previously procured however it was determined to be insufficient and therefore reinforcement will be progressed.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce

Blagdon Primary

Scheme description

Blagdon is a single transformer primary. There is liability on Blagdon to feed some of Churchill Gate primary demand for a fault at Churchill gate. This causes an overload of the Blagdon transformer. Reinforcement of the 33 kV and 11 kV network is suggested to solve this and nearby constraints.

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce

Moretonhampstead

Scheme description

Moretonhampstead is a single transformer primary with restricted N-1 restoration capacity. The N-1 restoration capacity is restricted by 11 kV backfeeds. Proposal is to upgrade the 11 kV backfeeds.

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce



Shapwick Primary

Scheme description

Shapwick is a single transformer primary with restricted N-1 restoration capacity. The N-1 restoration capacity is restricted by 11 kV backfeeds. Proposed reinforcement is to install a second 33/11kV primary transformer and 33kV circuit.

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce

East Brent Primary

Scheme description

East Brent is a single transformer primary which is anticipated to overload under intact conditions. The reinforcement is to replace the transformer with a larger one and assess the 11 kV backfeed capacity.

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint.

Constraint Information

Outage Type Intact
Constraint Type Thermal



DNOA Decision
Reinforce

Newton Abbot to Teignmouth Gasworks and Higher Woodway

Scheme description

Overload on the circuit from Newton Abbot 8L5 to Teignmouth Gasworks 1L3 and Newton Abbot 3L5 to Higher Woodway. Proposed reinforcement is to construct an additional 33kV circuit into the group.

Justification for decision

Flexibility is not suitable here due to the severity of the constraint.

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision
Reinforce



St Mawgan

Scheme description

Demand growth takes the 11 kV backfeeds over their capacity. Reinforcement solution is to add another transformer and replace switchboard.

.....

Justification for decision

Flexibility is not suitable here due to the complexity of the constraint.

.....

Constraint Information

Outage Type N-1
Constraint Type Thermal



DNOA Decision

Reinforce



For more information visit: dso.nationalgrid.co.uk/planning-our-future-network/network-development-plan