



#### CHAPTER 01

## **Executive Summary**

UK Power Networks' vision is to deliver a fit for purpose electricity network for the energy transition at the lowest cost to our customers. To do that, we set up GB's first independent Distribution System Operator (DSO) in 2023 with appropriate governance to ensure that recommendations on provision of future network capacity are made in the interest of all UK Power Networks customers. Hence, we were first to set up an independent DSO Supervisory Board in 2023, as part of our operating model. Hence, our DSO will be at the heart of facilitating the lowest cost transition

to Net Zero, whilst supporting clean economic growth. Also, we are and will continue to publish new granular data on our capacity needs and investment recommendation making throughout the RIIO-ED2 period.

In June 2023 we published our Distribution Network Options Assessment (DNOA) methodology¹. This set the basis for our RIIO-ED2 enduring commitment to market-test all load related² network needs that would otherwise lead to capital expenditure (capex). In principle, our DNOA methodology establishes a level playing field between network and market-based solutions on an enduring basis. Through our engagement with our DSO Supervisory Board and other stakeholders, including the Electricity System Operator (ESO), flexibility providers and

other Distribution Network Operators (DNOs), we developed further enhancements that led to our November 2023 consultation<sup>3</sup>. We have now integrated all these enhancements and feedback in this second version of the DNOA.

As part of our annual DNOA publication cycle, we issue two documents:

- The first contains the DNOA Methodology. It explains all the dedicated governance processes for making recommendations. This year, we have expanded our methodology beyond HV demand constraints to include HV generation constraints and LV demand.
- The second presents the results of the DNOA process in the form of reports.
   This document is this second part of the DNOA publication.

<sup>&</sup>lt;sup>1</sup> https://www.ukpowernetworks.co.uk/our-company/distribution-network-options-assessment-dnoa

<sup>&</sup>lt;sup>2</sup> The term often used is Load Related Reinforcement (LRR) and indicates investment to create new network capacity.

https://media.umbraco.io/uk-power-networks/fnzldp2c/dnoa-methodology-enhancement-nov-2023.pdf







In this document, we are presenting reports for the sites that flexibility was identified as a technically feasible solution and the market was tested in the latest flexibility tender event.

## The numbers are as follows:

HV demand: 64 sites4

HV generation: 37 sites

LV demand: 354 sites

**In the table below**, we provide a quick overview of the results for the HV sites.

Туре	Site / Name	License area	Constraint Year	DNOA Result	DNOA Stage
	Aldreth	EPN	2024	Flexibility	Flexibility procurement
	Alresford	EPN	2025	Flexibility	Flexibility procurement
	Aylesbury Group	EPN	2026	Flexibility	Flexibility procurement
Demand	Barsham	EPN	2026	Flexibility	Flexibility procurement
Demand	Bramford Diss Thetford	EPN	2024	Flexibility	Flexibility procurement
	Brington	EPN	2024	Reinforce with Flexibility	Reinforcement delivery
	Caister	EPN	2026	Flexibility	Flexibility procurement
	Cockfosters	EPN	2024	Reinforce with Flexibility	Reinforcement delivery

Туре	Site / Name	License area	Constraint Year	DNOA Result	DNOA Stage
	Croydon	EPN	2024	Reinforce with Flexibility	Reinforcement delivery
	Diss Grid	EPN	2026	Flexibility	Flexibility procurement
	East Enfield	EPN	2024	Flexibility	Flexibility procurement
Demand	Godmanchester	EPN	2024	Flexibility	Flexibility procurement
Demand	Guyhirn	EPN	2024	Flexibility	Flexibility procurement
	Halesworth Primary	EPN	2024	Flexibility	Flexibility procurement
	Halstead	EPN	2024	Flexibility	Flexibility procurement
	Hendon Way	EPN	2024	Flexibility	Flexibility procurement

 $<sup>^{4}</sup>$  3 of those sites needs were previously fully procured for.







Туре	Site / Name	License area	Constraint Year	DNOA Result	DNOA Stage
	Hilton	EPN	2026	Flexibility	Flexibility procurement
	Kenninghall	EPN	2024	Flexibility	Flexibility procurement
	Kimbolton	EPN	2024	Reinforce with Flexibility	Reinforcement delivery
	Kimms Belt	EPN	2024	Flexibility	Flexibility procurement
	Laxfield	EPN	2024	Flexibility	Flexibility procurement
	Manton Lane	EPN	2026	Flexibility	Flexibility procurement
	March Primary	EPN	2025	Flexibility	Flexibility procurement
Demand	Rainbow Lane	EPN	2026	Flexibility	Flexibility procurement
	Reed	EPN	2024	Reinforce with Flexibility	Reinforcement delivery
	Rickmansworth	EPN	2026	Flexibility	Flexibility procurement
	Selwyn Road	EPN	2024	Reinforce with Flexibility	Reinforcement delivery
	St Anthony St	EPN	2024	Flexibility	Flexibility procurement
	Stickfast Lane	EPN	2024	Reinforce with Flexibility	Reinforcement delivery
	Takeley	EPN	2024	Flexibility	Flexibility procurement
	Thaxted Local	EPN	2024	Reinforce with Flexibility	Reinforcement delivery

Туре	Site / Name	License area	Constraint Year	DNOA Result	DNOA Stage
	Trowse Grid	EPN	2026	Flexibility	Flexibility procurement
	Uplands Park	EPN	2026	Flexibility	Flexibility procurement
	West Horndon	EPN	2024	Reinforce with Flexibility	Reinforcement delivery
	White Roding	EPN	2024	Flexibility	Flexibility procurement
	Wisbech Railway	EPN	2024	Flexibility	Flexibility procurement
	Worstead	EPN	2024	Flexibility	Flexibility procurement
	Bow	LPN	2025	Flexibility	Flexibility procurement
Demand	Lithos Road	LPN	2025	Flexibility	Flexibility procurement
	Whiston Road	LPN	2024	Reinforce with Flexibility	Reinforcement delivery
	Willesden Grid GSP	LPN	2024	Flexibility	Flexibility procurement
	Barming	SPN	2024	Flexibility	Flexibility procurement
	Capel Switching Station	SPN	2024	Flexibility	Flexibility procurement
	Capel	SPN	2025	Flexibility	Flexibility procurement
	Cobham	SPN	2024	Flexibility	Flexibility procurement
	Croydon B	SPN	2024	Flexibility	Flexibility procurement





Туре	Site / Name	License area	Constraint Year	DNOA Result	DNOA Stage
	Edenbridge	SPN	2024	Flexibility	Flexibility procurement
	Hurstpierpoint	SPN	2026	Flexibility	Flexibility procurement
	Leysdown	SPN	2024	Flexibility	Flexibility procurement
	Little Chart	SPN	2024	Flexibility	Flexibility procurement
	Medway Grid	SPN	2024	Flexibility	Flexibility procurement
	Rainham	SPN	2026	Flexibility	Flexibility procurement
Demand	Ripe	SPN	2025	Flexibility	Flexibility procurement
Demand	Rye	SPN	2024	Flexibility	Flexibility procurement
	Smeeth	SPN	2024	Flexibility	Flexibility procurement
	St Helier	SPN	2024	Flexibility	Flexibility procurement
	Steel Cross	SPN	2024	Flexibility	Flexibility procurement
	Tunbridge Wells Group	SPN	2024	Flexibility	Flexibility procurement
	West Weybridge	SPN	2025	Flexibility	Flexibility procurement
	Warehorne	SPN	2024	Flexibility	Flexibility procurement

Туре	Site / Name	License area	Constraint Year	DNOA Result	DNOA Stage
	Warehorne Group	SPN	2024	Flexibility	Flexibility procurement
Demand	Wingham	SPN	2024	Flexibility	Flexibility procurement
	Wittersham	SPN	2024	Reinforce with Flexibility	Reinforcement delivery
	Wrotham	SPN	2024	Flexibility	Flexibility procurement
	Benhall	EPN	2024	Flexibility	Flexibility procurement
	Braintree Local	EPN	2024	Flexibility	Flexibility procurement
	Bramford	EPN	2024	Flexibility	Flexibility procurement
	Burnham Thorpe	EPN	2024	Flexibility	Flexibility procurement
Generation	Bury Grid	EPN	2024	Flexibility	Flexibility procurement
	Bury Grid 1	EPN	2024	Flexibility	Flexibility procurement
	Bury Grid 2	EPN	2024	Flexibility	Flexibility procurement
	Earlham Norwich	EPN	2024	Flexibility	Flexibility procurement
	Eye	EPN	2024	Flexibility	Flexibility procurement





Туре	Site / Name	License area	Constraint Year	DNOA Result	DNOA Stage
	Farcet 1	EPN	2024	Flexibility	Flexibility procurement
	Farcet 2	EPN	2024	Flexibility	Flexibility procurement
	Frinton	EPN	2024	Flexibility	Flexibility procurement
	Halesworth	EPN	2024	Flexibility	Flexibility procurement
	Halesworth Market Grid	EPN	2024	Flexibility	Flexibility procurement
	Hempton Grid	EPN	2024	Flexibility	Flexibility procurement
Generation	Landbeach 1	EPN	2024	Flexibility	Flexibility procurement
Generation	Landbeach 2	EPN	2024	Flexibility	Flexibility procurement
	Lawford 1	EPN	2024	Flexibility	Flexibility procurement
	Lawford 2	EPN	2024	Flexibility	Flexibility procurement
	Little Barford/ Offord	EPN	2024	Flexibility	Flexibility procurement
	March Grid	EPN	2024	Flexibility	Flexibility procurement
	Perry/Little Barford/Kimbolton	EPN	2024	Flexibility	Flexibility procurement
	Peterborough Grid	EPN	2024	Flexibility	Flexibility procurement

Туре	Site / Name	License area	Constraint Year	DNOA Result	DNOA Stage
	Purfleet Grid	EPN	2024	Flexibility	Flexibility procurement
	Rayleigh Main	EPN	2024	Flexibility	Flexibility procurement
	Sall / West Beckham	EPN	2024	Flexibility	Flexibility procurement
	Sall Grid	EPN	2024	Flexibility	Flexibility procurement
	Swaffham Grid	EPN	2024	Flexibility	Flexibility procurement
	Warley Grid	EPN	2024	Flexibility	Flexibility procurement
	Whittlesey Chatteris 1	EPN	2024	Flexibility	Flexibility procurement
Generation	Whittlesey Chatteris 2	EPN	2024	Flexibility	Flexibility procurement
	Worstead (generation)	EPN	2024	Flexibility	Flexibility procurement
	Wroxham	EPN	2024	Flexibility	Flexibility procurement
	Betteshanger Grid	SPN	2024	Flexibility	Flexibility procurement
	Richborough 1	SPN	2024	Flexibility	Flexibility procurement
	Richborough 2	SPN	2024	Flexibility	Flexibility procurement
	Sellindge Local	SPN	2024	Flexibility	Flexibility procurement



CHAPTER 02

## **HV** Demand Results

In this chapter we present the detailed reports for the results of the DNOA process of the HV demand sites.

EPN Results

LPN Results

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SPN Results

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## **Aldreth**

Area: EPN

Postcode: CB6 3PJ

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to the limited rating of the 11kV swichgear.

#### Traditional solution:

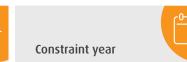
In order to increase capacity at the site a proposed solution is to replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter

Customers served

7,698





**Current status Flexibility** procurement



Local authority

**East Cambridgeshire South Cambridgeshire** 

## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.7	1.2	1.7	2.4	3.3
ST	1.1	1.7	2.2	2.8	3.4
LW	0.7	1.2	1.9	2.5	3.1
FS	1.1	1.6	2.2	2.7	3.3
FLEX	60%	40%	40%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

2024



## **Alresford**

Area: EPN

Postcode: CO7 8DG

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to replace the transformers.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



8,499





Flex revenue range £/MW

£65,100 - £93,000

Customers served

Current status
Flexibility
procurement



Local authority

Colchester Tendring



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA result history:**

28	202	2027	2026	2025	2024	2023
					(Pj.)	
					<b>V</b>	

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ		0.1	0.8	1.7	2.7
ST		0.6	1.3	2.2	3.1
LW		0.1	1.1	2.0	2.8
FS		0.6	1.4	2.2	3.1
FLEX		>100%	>100%		

Key:







Legend:







Postcode: HP22 5AT

### **Constraint description:**

The loading on the 33kV circuits is expected to exceed the circuit capacity under an N-1 outage condition.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to install two new 33kv circuits from Aylesbury East Grid to Buckingham Road Primary.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter



Constraint year 2026



Flex revenue range £/MW

£56,000 - £80,000

Customers served 17,152



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

## **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.5	3.4	6.3
ST			1.5	4.1	7.0
LW			0.8	3.7	6.4
FS			1.4	3.9	6.3
FLEX			90%		

Key:







Legend:







Postcode: NR34 8HF

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season

Summer



Constraint year **2026** 



Flex revenue range £/MW

£70,000 - £100,000

Customers served 3,014



Current status
Flexibility
procurement



Local authority

East Suffolk South Norfolk

## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

## **DNOA** result history:

024 202	5 2026	2027	2028
<b>I</b>			
		2023 2020	2023 2020 2027

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.1	0.2	0.2
ST	0.0	0.2	0.3	0.4	0.5
LW			0.1	0.2	0.3
FS	0.1	0.2	0.4	0.5	0.7
FLEX			>100%		

Key:







Legend:







Postcode: IP22 4AU

### **Constraint description:**

The loading on the 132kV circuits is expected to exceed the circuit capacity under an N-1 outage condition.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to replace the 132kV oil filled cables between Bramford GSP and the start of the overhead lines towards Diss & Thetford.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer

Customers served

55,371





**Current status Flexibility** procurement



Local authority

**East Suffolk South Norfolk** 

## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(PL)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	4.4	6.4	9.0	12.9	19.0
ST	6.7	9.2	12.1	15.6	21.1
LW	4.9	7.6	10.6	13.9	18.4
FS	7.2	9.6	12.1	14.6	18.0
FLEX	30%	30%	30%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

2024





Postcode: PE28 5AD

#### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

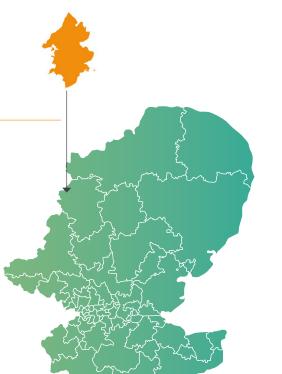
#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- Install a new 11kV circuit between Brington and Kimbolton
- Replace the existing transformer at Kimbolton.

The maps are for indicative purposes. Please use the postcodes for accurate location information.





## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	4.3	4.4	4.6	4.8	4.9
ST	4.4	4.6	4.7	4.9	5.0
LW	4.3	4.6	4.9	5.0	5.2
FS	4.5	4.5	4.7	4.8	5.0
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short







Postcode: NR30 5TE

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to increase the 11kV circuit capacity between Caister and Great Yarmouth Grid to allow demand to be transferred from Caister to Gt Yarmouth.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer





Customers served

10,274

**Current status Flexibility** procurement



Local authority **Broadland** 

**Great Yarmouth** 

## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	Ŷţ				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.4	1.1	1.8
ST		0.1	0.7	1.4	2.0
LW		0.0	0.6	1.2	1.7
FS		0.1	0.5	1.1	1.6
FLEX			>100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

2026







Postcode: EN4 9HT

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to replace the lower capacity transformer at Cockfosters Primary.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter/Summer Constraint year 2024



Flex revenue range £/MW £2,800 - £4,000

Customers served 13,400

**Current status** 

Reinforcement delivery



Local authority

**Barnet Enfield** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(ÎJ)	7				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	4.6	5.3	6.3	7.3	8.4
ST	5.1	5.9	6.9	8.0	9.1
LW	4.7	5.6	6.8	7.8	8.7
FS	5.0	5.7	6.5	7.3	8.1
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





Postcode: SG8 0DN

### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformer
- · Install an additional transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.





Constraint year 2024



Flex revenue range £/MW

£9,800 - £14,000



2,116

**Current status** 

Reinforcement delivery

Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	P				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	2.8	3.0	3.2	3.5	3.7
ST	2.9	3.1	3.3	3.5	3.6
LW	2.8	3.1	3.4	3.6	3.8
FS	3.0	3.1	3.3	3.4	3.6
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>





## Diss Grid

Area: EPN

Postcode: IP22 4AU

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season

Summer



Constraint year **2026** 



Flex revenue range £/MW

£70,000 - £100,000

Customers served 8,714



Current status
Flexibility
procurement



Local authority

Multiple



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

## **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.2	1.0	2.0
ST			0.5	1.3	2.1
LW			0.6	1.4	2.0
FS			0.2	0.8	1.5
FLEX			100%		

Key:







Legend:





## **East Enfield**

Area: EPN

Postcode: EN1 1TH

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to replace the transformers.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2026



Flex revenue range £/MW

£50,400 - £72,000

Customers served 7,193



**Current status Flexibility** 

procurement



Local authority **Enfield** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.6	0.6	0.6	0.7	0.7
ST	0.9	1.1	1.2	1.3	1.4
LW	0.6	0.6	0.7	0.7	0.7
FS	1.0	1.2	1.3	1.5	1.6
FLEX	40%	50%	70%		

Key:







Legend:





Postcode: PE29 2AB

### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Install an additional 33/11kV transformer
- Extend the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.





Constraint year 2024



Flex revenue range £/MW

£42,700 - £61,000

Customers served

**Current status Flexibility** procurement



Local authority **Huntingdonshire** 

# 

## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
Ŷ	Ŷ				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.6	1.1	1.6	2.2	2.8
ST	0.8	1.4	1.9	2.6	3.2
LW	0.6	1.2	1.7	2.4	3.0
FS	0.8	1.3	1.8	2.3	2.9
FLEX	10%	10%	50%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

6,612

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>

20





Area: EPN

Postcode: PE13 4EG

### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Install an additional 33/11kV transformer
- Extend the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

1,553





Flex revenue range £/MW **£70,000 - £100,000** 



Cui El

Current status
Flexibility
procurement



Local authority

Fenland Peterborough



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
(Î)	(P)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.6	0.8	1.0	1.2	1.4
ST	0.7	0.9	1.1	1.3	1.4
LW	0.7	0.9	1.2	1.4	1.7
FS	0.7	0.8	1.0	1.2	1.4
FLEX	30%	20%	40%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short



Halesworth Primary

Area: EPN

Postcode: IP19 8QJ

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformers
- Extend the 11kV switchgear
- Install a new 33kV circuit from Walsoken Grid.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2024



Flex revenue range £/MW

£29,400 - £42,000

Customers served 5,536



**Current status Flexibility** procurement



Local authority **East Suffolk** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

## **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.8	1.9	2.1	2.2	2.4
ST	2.1	2.3	2.5	2.7	2.9
LW	1.8	1.9	2.1	2.3	2.4
FS	2.2	2.5	2.7	2.9	3.1
FLEX	>100%	>100%	>100%		

Key:







Legend:







Postcode: CO9 1LH

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



12,418



Constraint year 2024



Flex revenue range £/MW

£39,200 - £56,000

Customers served





Local authority **Braintree** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.7	1.4	2.2	3.4	4.7
ST	1.1	2.0	2.9	4.0	5.2
LW	0.7	1.7	2.8	3.9	5.0
FS	1.1	1.9	2.7	3.6	4.6
FLEX	100%	60%	40%		

Key:







Legend:





Postcode: NW11 9RR

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### **Traditional solution:**

In order to increase capacity at the site a proposed solution is to:

- Replace the existing transformers
- Extend the 11kV switchgear
- Install a new 33kV circuit from Hendon Grid.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

11,399

Constraint year



000

Current status
Flexibility
procurement



Local authority **Barnet** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(P)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	3.9	4.6	5.5	6.3	7.1
ST	4.3	5.1	6.0	6.9	7.8
LW	4.1	4.9	5.9	6.8	7.5
FS	4.3	4.9	5.6	6.3	7.0
FLEX	10%	10%	10%		

Key:







Reinforcement

ancformation

Legend:







Postcode: CB23 4JB

### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to reinforce the 11kV network between Hilton and Bourn.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2026



Flex revenue range £/MW

N/A

Customers served

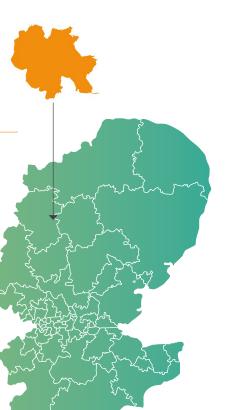
3,523

**Current status Flexibility** procurement



Local authority

**Huntingdonshire South Cambridgeshire** 



## Approved DNOA recommendation:



We had previously procured all required flexibility capacity for this site. Therefore this was not tendered in the Autumn 2023 Flexibility Tender event.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	Ŷ				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.1	0.3	0.5
ST		0.1	0.3	0.5	0.7
LW			0.2	0.3	0.5
FS		0.1	0.3	0.5	0.8
FLEX			100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short



Postcode: NR16 2EL

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer tapchanger capacity.

#### **Traditional solution:**

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season
Winter

4,427



Constraint year **2024** 



Flex revenue range £/MW

£15,400 - £22,000

Customers served



Current status
Flexibility
procurement



Local authority **Breckland** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender.
The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	3.0	3.0	3.0	3.3	3.5
ST	3.4	3.5	3.5	3.7	3.8
LW	3.0	3.2	3.3	3.6	3.8
FS	3.5	3.6	3.8	3.9	4.1
FLEX	<10%	<10%	20%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short



## Kimbolton

Area: EPN

Postcode: PE28 0JF

### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Reinforce the 11kV network between Kimbolton and Brington
- Replace the existing transformer at Kimbolton.

The maps are for indicative purposes. Please use the postcodes for accurate location information.







We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

## **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	7				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	2.1	2.0	1.9	1.9	2.0
ST	2.2	2.2	2.1	2.1	2.1
LW	2.1	2.0	2.0	2.1	2.1
FS	2.3	2.2	2.2	2.3	2.3
FLEX	<10%	<10%	<10%		

Key:







Legend:

## Kimms Belt

Area: EPN

Postcode: IP24 3EU

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season **Summer/Winter** 

Customers served

2,938





Flex revenue range £/MW £56,000 - £80,000



**Current status Flexibility** procurement



Local authority

**Breckland West Suffolk** 

## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.3	0.9	1.9	2.7	3.4
ST	0.5	1.2	2.1	3.0	3.8
LW	0.5	1.5	2.5	3.3	4.0
FS	0.3	0.8	1.4	2.0	2.7
FLEX	60%	20%	10%		

Key:







Reinforcement

**Flexibility** 

Legend:





## Laxfield

Area: EPN

Postcode: IP13 8EW

### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Install an additional transformer
- · Install additional 33kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



1,953



Constraint year 2024



Flex revenue range £/MW

£70,000 - £100,000

Customers served

**Current status Flexibility** procurement



Local authority

**East Suffolk Mid Suffolk** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2024	2025	2026	2027	2028
(P)				
(	2024 Tj.	2024 2025	2024   2025   2026	2024 2025 2026 2027

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.2	0.2	0.2	0.4	0.6
ST	0.3	0.3	0.3	0.4	0.4
LW	0.2	0.3	0.5	0.6	0.8
FS	0.3	0.3	0.3	0.3	0.3
FLEX	50%	60%	50%		

Key:







Reinforcement

**Flexibility** 

Legend:







Postcode: MK41 7PX

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited rating of the current transformers fitted to the 11kV switchgear.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to replace the current transformers.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter

13,576



Constraint year 2026



Flex revenue range £/MW

£3,500 - £5,000

Customers served

**Current status Flexibility** procurement



Local authority **Bedford** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

## **DNOA** result history:

2024	2025	2026	2027	2028
(P)				
(	2024 Tj.	2024 2025	2024   2025   2026	2024 2025 2026 2027

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.3	1.2	2.2
ST		0.3	1.1	2.0	3.0
LW			0.6	1.6	2.5
FS		0.6	1.4	2.3	3.2
FLEX			100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>







Postcode: PE15 9LT

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to install a new single transformer 33/11kV substation at March Grid 132/33kV site.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2025



Flex revenue range £/MW

£56,000 - £80,000

Customers served 12,629



**Current status Flexibility** procurement



Local authority **Fenland** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
Ŷ	Ŷ				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ		0.5	0.6	0.9	1.1
ST	0.2	0.9	1.2	1.4	1.7
LW		0.4	0.6	0.8	1.0
FS	0.4	1.2	1.5	1.9	2.2
FLEX		100%	70%		

Key:







Legend:







Postcode: SS17 0AR

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season **Summer/Winter**  Constraint year 2026



Flex revenue range £/MW

£70,000 - £100,000

Customers served 13,933



**Current status Flexibility** procurement



Local authority **Thurrock** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

## **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.2	1.2	2.3
ST			0.8	1.8	3.0
LW			0.4	1.5	2.5
FS			0.7	1.7	2.7
FLEX			80%		

Key:







Legend:





## Reed

Area: EPN

Postcode: SG8 8BD

### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to install a new 11kV circuit between Reed and Royston.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season **Summer/Winter** 

2,196

Constraint year



Customers served

**Current status** Reinforcement delivery

Local authority

**East Hertfordshire North Hertfordshire** 

## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	7				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5.4	5.6	5.8	6.1	6.5
ST	5.6	5.8	6.0	6.3	6.5
LW	5.4	5.8	6.1	6.5	6.8
FS	5.5	5.8	6.0	6.2	6.4
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

2024





Postcode: WD3 7DD

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Remove the existing 33/11kV transformer
- Install a second 132/11kV transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

13,867







Current status
Flexibility
procurement



Local authority

Three Rivers



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

## **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.3	1.3	2.3
ST		0.3	1.2	2.2	3.3
LW			0.6	1.4	2.3
FS		0.4	1.2	2.1	3.0
FLEX			>100%		

Key:







Legend:







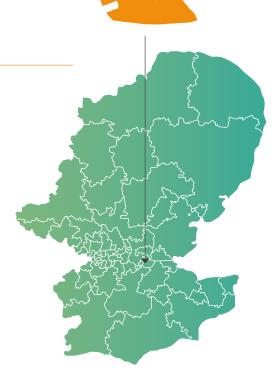
Postcode: RM18 7BP

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to replace the transformers.



The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2024



Flex revenue range £/MW

£23,800 - £34,000

Customers served 7,964



**Current status** 

Reinforcement delivery

Local authority **Thurrock** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

## **DNOA** result history:

2023	2024	2025	2026	2027	2028
	7				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.4	1.6	1.8	2.1	2.3
ST	1.6	1.7	2.0	2.2	2.4
LW	1.5	1.7	2.0	2.3	2.7
FS	1.8	1.9	2.1	2.4	2.8
FLEX	20%	20%	20%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





Postcode: CB2 1HX

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2024



Flex revenue range £/MW

£58,800 - £84,000

Customers served 2,544



**Current status Flexibility** procurement



Local authority

**Cambridge South Cambridgeshire** 

## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(P)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.1	1.1	1.1	1.0	1.0
ST	1.4	1.5	1.5	1.5	1.6
LW	1.2	1.2	1.2	1.1	1.0
FS	1.5	1.7	1.7	1.7	1.8
FLEX	10%	10%	20%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





## Stickfast Lane

Area: EPN

Postcode: PE14 7LF

### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.





Constraint year 2024



Flex revenue range £/MW

£22,400 - £32,000

Customers served 2,749



**Current status** 

Reinforcement delivery



King's Lynn



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(1),				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	2.4	2.4	2.5	2.8	0.2
ST	2.5	2.6	2.7	2.8	0.2
LW	2.3	2.4	2.5	2.7	0.1
FS	2.6	2.7	2.8	2.9	0.2
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

37



Area: EPN

Postcode: CM22 6RJ

#### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

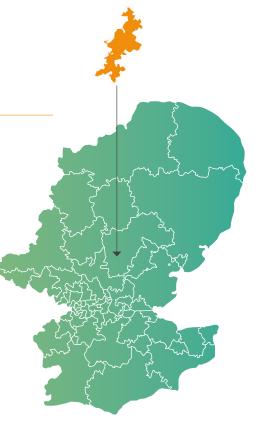
#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Install an additional 33/11kV transformer
- · Install an additional 33kV circuit to Takeley.

The maps are for indicative purposes. Please use the postcodes for accurate location information.





#### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.1	0.3	0.6	1.0	1.5
ST	0.3	0.6	0.9	1.3	1.7
LW	0.2	0.4	0.8	1.3	1.7
FS	0.4	0.5	0.8	1.1	1.5
FLEX	>100%	>100%	70%		

Key:







Reinforcement

Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

procurement







### **Thaxted Local**

Area: EPN

Postcode: CM6 2RD

#### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- Replace the existing 33/11kV transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter



Constraint year 2024



Flex revenue range £/MW

£4,900 - £7,000

Customers served 3,095



**Current status** 

Reinforcement delivery



Local authority **Uttlesford** 



### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(1) (1)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	4.1	4.2	4.3	4.6	4.9
ST	4.3	4.4	4.6	4.8	5.1
LW	4.1	4.2	4.4	4.7	4.9
FS	4.3	4.5	4.6	4.8	5.0
FLEX	<10%	<10%	<10%		

Key:







Reinforcement

Legend:







Postcode: NR14 8SL

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Install an additional 132/33kV transformer
- Extend the 33kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter/Summer

Customers served

73,773





**Current status Flexibility** procurement



Local authority **Multiple** 



### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.1	5.8	11.6
ST			3.4	7.9	12.9
LW			1.2	5.8	10.1
FS			3.0	6.9	10.7
FLEX			>100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





Postcode: SS6 8AY

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase available capacity at the site a proposed solution is to install additional 11kV interconnection to enable demand to be transferred from Uplands Park to Rayleigh Local.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

14,089

Constraint year 2026



**Current status Flexibility** 

procurement



Local authority **Rochford** 



### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.5	1.1	1.9
ST	0.2	0.7	1.3	2.0	2.8
LW		0.0	0.7	1.4	2.0
FS	0.3	0.8	1.4	2.1	2.8
FLEX			80%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>







Postcode: CM13 3XL

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to replace the transformers.



The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter/Summer



Constraint year 2024



Flex revenue range £/MW

£16,800 - £24,000

Customers served 1,434



**Current status** 

Reinforcement delivery



Local authority

**Basildon Brentwood** 



#### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				
	(FL)				

### Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.8	2.1	2.6	3.0	3.4
ST	1.8	2.3	2.7	3.1	3.5
LW	1.9	2.5	2.9	3.3	3.8
FS	1.9	2.1	2.4	2.8	3.1
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





Postcode: CM6 1RF

#### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- · Install an additional 33/11kV transformer
- Extend the 11kv switchgear
- · Install an additional 33kV circuit to White Roding.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

2,728





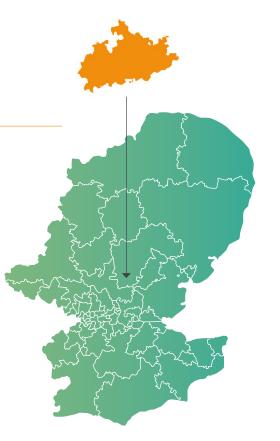


**Current status Flexibility** procurement



Local authority

**Epping Forest Uttlesford** 



#### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	3.1	3.2	3.3	3.7	4.1
ST	3.4	3.5	3.6	3.9	4.1
LW	3.1	3.3	3.5	3.7	3.9
FS	3.4	3.5	3.7	3.9	4.1
FLEX	>100%	>100%	>100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short







Postcode: PE13 2QA

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to:

- Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2024



Flex revenue range £/MW

£70,000 - £100,000

Customers served 5,846



**Current status Flexibility** procurement



Local authority **Multiple** 



### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.3	0.2	0.1	0.2	0.1
ST	0.6	0.6	0.6	0.7	0.7
LW	0.2	0.2	0.2	0.2	0.2
FS	0.8	0.9	0.9	1.0	1.2
FLEX	100%	>100%	>100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short







Postcode: NR28 9RX

#### **Constraint description:**

The site only has a single transformer and is expected to be overloaded under an N-1 outage condition due to limited 11kV interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site a proposed solution is to install additional 11kV interconnection between Worstead and Scottow.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

509

Constraint year



**Current status Flexibility** procurement



Local authority **North Norfolk** 



#### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.4	0.4	0.4	0.4	0.4
ST	0.5	0.5	0.5	0.5	0.5
LW	0.4	0.4	0.4	0.4	0.4
FS	0.6	0.6	0.6	0.6	0.6
FLEX	50%	50%	50%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>

2024





### **Bow**

Area: LPN

Postcode: E15 2GN

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

27,908

In order to increase capacity at the site the traditional solution is to:

- Establish a 3rd 132/11kV transformer
- · Extend 132kV switchboard at Bow GIS.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2025



Flex revenue range £/MW £31,500 - £45,000

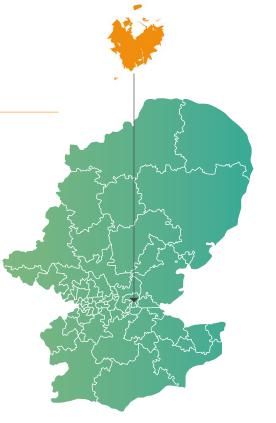
Customers served

**Current status Flexibility** procurement



Local authority

Newham **Tower Hamlets** 



#### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

024 202	5 2026	2027	2028
<u>Ē</u>			
	(i) 202	2023 2020	2023 2020 2021

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ		0.5	3.4	6.3	8.6
ST		1.5	4.4	7.2	9.4
LW		0.9	4.1	6.9	8.9
FS		1.3	4.0	6.5	8.5
FLEX		>100%	20%		

Key:







Legend:





Area: LPN

Postcode: NW3 6ES

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

• Replace 4 x 15MVA units with 3 x 66/11 33MVA units.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2025



Flex revenue range £/MW

£28,000 - £40,000

Customers served 43,065



**Current status Flexibility** procurement



Local authority Camden



### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ		0.3	2.2	4.2	6.2
ST		1.3	3.2	5.2	7.3
LW		0.3	2.2	4.0	5.8
FS		2.0	4.2	6.3	8.5
FLEX		100%	20%		

Key:







Legend:





### Whiston Road

Area: LPN

Postcode: E2 8BN

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- · 3 new 132/11 33MVA transformers supplied via new circuits from Islington GSP
- · Lay new 132kV circuits (~4km).

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter



Constraint year 2024



Flex revenue range £/MW

£44,800 - £64,000

Customers served 28,367



**Current status** 

Reinforcement delivery



Local authority

**Hackney Tower Hamlets** 

### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will progress the reinforcement scheme and use flexibility to manage the system needs while reinforcement is being delivered.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(1) (1)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	3.2	3.7	4.6	5.8	7.1
ST	4.4	5.2	6.1	7.1	8.2
LW	3.3	3.9	5.2	6.6	7.9
FS	5.0	5.6	6.7	7.7	8.8
FLEX	<10%	<10%	<10%		

Key:







Signposting

Reinforcement

**Flexibility** 

Legend:







Area: LPN

Postcode: NW10 6PE

#### **Constraint description:**

Lack of capacity within Scottish and Southern Energy Networks area within West London.

#### **Traditional solution:**

This is a whole systems approach to solve a network limitation.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



108,256

Constraint year N/A



Flex revenue range £/MW

£18,900 - £27,000

Customers served

**Current status Flexibility** procurement



Local authority **Multiple** 



### Approved DNOA recommendation:



We are procuring as much flexibility as possible to support the growth of demand in West London's SSEN network.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	25	25	25	25	
ST	25	25	25	25	
LW	25	25	25	25	
FS	25	25	25	25	
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short







Postcode: ME16 9BX

#### **Constraint description:**

The site is expected to be overloaded in under an N-1 outage condition due to limited switchgear rating and transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- Replace the existing transformers
- Replace the 11kV switchgear
- Increase the capacity of the 33kV circuits.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

9,802

Constraint year 2024



Flex revenue range £/MW £70,000 - £100,000

**Current status Flexibility** procurement



Local authority

Maidstone **Tonbridge and Malling** 

### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

### Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.1	1.2	2.4	2.6	3.0
ST	0.5	1.7	2.9	3.1	3.6
LW	0.1	1.2	2.5	2.7	3.1
FS	0.6	1.9	3.1	3.3	3.5
FLEX	100%	40%	20%		

Key:







Legend:







Postcode: RH5 5LE

#### **Constraint description:**

Network load is forecasted to exceed the circuits capacity in 2024. Intervention is required to ensure there is sufficient capacity in the network for the projected load.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

· Replace overhead lines with 2 x 12km EHV cable.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

14,580

Constraint year 2024



**Current status Flexibility** procurement Local authority **Mole Valley** 

### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	3.6	4.0	4.5	5.4	6.4
ST	4.4	5.0	5.7	6.5	7.4
LW	3.5	4.0	4.8	5.6	6.5
FS	4.7	5.3	6.0	6.8	7.6
FLEX	20%	20%	40%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>





Postcode: RH5 5LE

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- · Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



4,667



Constraint year 2025



Flex revenue range £/MW N/A



Customers served

**Current status Flexibility** procurement



Local authority **Mole Valley** 



### Approved DNOA recommendation:



We had previously procured all required flexibility capacity for this site. Therefore this was not tendered in the Autumn 2023 Flexibility Tender event.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ		0.1	0.2	0.5	0.9
ST	0.2	0.4	0.6	0.9	1.2
LW		0.1	0.3	0.6	0.9
FS	0.3	0.5	0.7	1.0	1.2
FLEX		100%	100%		

Key:







Legend:







Postcode: DA12 3BP

#### **Constraint description:**

The site is run split at transformer level. One of the transformers can be overload at peak demand times.

#### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace power transformers, 9km of EHV underground cable.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

5,725

Constraint year 2024



**Current status Flexibility** 

procurement



Local authority **Gravesham** 



### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	2.9	3.1	3.4	4.0	4.5
ST	3.2	3.5	3.9	4.4	4.8
LW	2.9	3.1	3.5	4.1	4.4
FS	3.2	3.5	3.9	4.3	4.7
FLEX	<10%	<10%	10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

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Postcode: CR0 3RL

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

25,470

In order to increase capacity at the site the traditional solution is to install 1 grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Customers served

**Current status Flexibility** procurement



Local authority Croydon



### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.2	0.8	1.6	2.6	3.7
ST	0.9	1.6	2.5	3.4	4.5
LW	0.2	0.9	1.9	3.0	3.9
FS	1.0	1.7	2.4	3.2	4.0
FLEX	100%	100%	60%		

Key:







Legend:







Postcode: TN8 6SL

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to install 1 power transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Flex revenue range £/MW

£31,500 - £45,000

Customers served

4,446

**Current status Flexibility** procurement





#### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.0	1.0	1.0	1.1	1.3
ST	1.2	1.3	1.3	1.4	1.6
LW	1.0	1.0	1.0	1.2	1.3
FS	1.3	1.4	1.4	1.5	1.7
FLEX	20%	20%	40%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>



Postcode: BN6 9PA

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

• Replace 2 x power transformers, 11 x circuit breakers, 2 x 5km EHV cables.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter

11,225



Constraint year 2026



Flex revenue range £/MW

£70,000 - £100,000

Customers served

**Current status Flexibility** procurement



Local authority

Horsham **Lewes, Mid Sussex** 

### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.5	1.5	2.4
ST		0.6	1.4	2.3	3.2
LW		0.0	0.9	1.8	2.5
FS	0.0	0.7	1.4	2.2	3.0
FLEX			>100%		

Key:







Legend:





Postcode: ME12 4NA

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- · Replace the existing transformer
- · Install an additional transformer
- · Replace the 6.6kV switchgear
- Increase the capacity of the 33kV circuits.







We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.5	0.5	0.56	0.6	0.7
ST	0.6	0.6	0.7	0.7	0.8
LW	0.5	0.5	0.6	0.6	0.6
FS	0.6	0.6	0.7	0.7	0.8
FLEX	20%	20%			

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





Postcode: TN27 OPS

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site, a proposed solution is to replace the existing transformers.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season
Winter

Customers served

3,063

Constraint year



Current status
Flexibility
procurement

2024

(I)

Local authority **Ashford** 



### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA result history:**

	2027	2028

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.4	0.6	0.9	1.3	1.7
ST	0.5	0.8	1.1	1.5	1.8
LW	0.4	0.7	1.1	1.5	1.8
FS	0.6	0.7	1.0	1.3	1.6
FLEX	60%	20%	40%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>





### **Medway Grid**

Area: SPN

Postcode: ME1 3TS

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

· Replace the existing transformers · Replace switchgear.







We had previously procured all required flexibility capacity for this site. Therefore this was not tendered in the Autumn 2023 Flexibility Tender event.

#### **DNOA** result history:

4 2025	2026	2027	2028
,)			
	,)	,)	

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	10.6	11.7	12.7	14.2	17.1
ST	12.2	13.5	14.8	16.6	19.5
LW	10.8	12.1	13.6	15.0	17.4
FS	12.7	14.0	15.3	16.6	18.6
FLEX	100%	100%	100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





Postcode: ME8 ODT

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited circuit capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- · Install an additional transformer
- · Replace the 11kV switchgear
- · Install new 33kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter



Constraint year 2026



Flex revenue range £/MW £66,500 - £95,000

Customers served 16,095



**Current status Flexibility** procurement



Local authority

Maidstone Medway, Swale

Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			1.1	2.0	2.8
ST	0.6	1.3	2.0	2.9	3.9
LW		0.6	1.3	2.2	3.0
FS	0.8	1.5	2.2	3.0	3.8
FLEX			100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short







Postcode: BN8 6AY

#### **Constraint description:**

The site is expected to be overloaded under N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

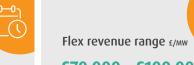
In order to increase capacity at the site the traditional solution is to:

- Replace the existing transformers
- Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.







£70,000 - £100,000

Customers served

2,135





Local authority

Lewes Wealden

### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ		0.4	0.5	0.7	0.9
ST		0.5	0.6	0.8	1.0
LW		0.5	0.7	0.8	1.0
FS		0.5	0.5	0.7	0.8
FLEX		40%	40%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation

LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress







Postcode: TN31 7HT

#### **Constraint description:**

The grid site is expected to be overloaded under N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- · Install a second grid transformer
- Extend the 33kV switchgear panel.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter



Constraint year 2026



Flex revenue range £/MW

£70,000 - £100,000

Customers served 6,819



**Current status Flexibility** procurement



Local authority

**Folkestone** and Hythe Rother

Approved DNOA recommendation:

We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.1	0.6	1.2
ST			0.3	0.7	1.3
LW			0.4	0.9	1.3
FS			0.2	0.6	0.9
FLEX			100%		

Key:







Reinforcement

**Flexibility** 

Legend:





Postcode: TN25 6SY

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- · Replace the existing transformer and add a second unit
- · Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Summer



Constraint year 2024



Flex revenue range £/MW

£70,000 - £100,000

Customers served 941



**Current status Flexibility** procurement



Local authority

**Ashford** Folkestone and Hythe

### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.0	1.0	1.0	1.1	1.1
ST	1.0	1.0	1.0	1.1	1.1
LW	1.0	1.0	1.0	1.1	1.1
FS	1.0	1.0	1.1	1.1	1.1
FLEX	20%	20%	20%		

Key:







Legend:





### St Helier

Area: SPN

Postcode: SM1 3TY

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- Replace the existing transformers
- Replace the 11kV switchgear
- Increase the capacity of the 33kV circuits.







We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(Pj				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.7	1.1	1.6	2.3	3.1
ST	1.3	1.8	2.4	3.1	3.9
LW	0.7	1.3	2.1	2.9	3.6
FS	1.5	2.0	2.6	3.3	3.9
FLEX	100%	60%	40%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>





### **Steel Cross**

Area: SPN

Postcode: TN6 2XB

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- · Replace the existing transformer and add a second unit
- · Replace the 11kV switchgear.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Flex revenue range £/MW

£70,000 - £100,000

Customers served

2,385

**Current status Flexibility** procurement Local authority Wealden



### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
Ŷ	Ŷ				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.6	0.7	0.8	0.9	1.0
ST	0.7	0.8	0.9	1.1	1.2
LW	0.6	0.7	0.8	0.9	1.0
FS	0.7	0.8	0.9	1.0	1.2
FLEX	80%	20%	20%		

Key:







Legend:





Postcode: TN2 3GG

#### **Constraint description:**

The circuits supporting this 132kV group are expected to be overloaded under an N-1 outage condition due to limited circuit capacity.

#### Traditional solution:

Customers served

63,657

In order to increase capacity for the group, a proposed solution is to replace 132kV conductors existing tower line circuits.

The maps are for indicative purposes. Please use the postcodes for accurate location information.









**Current status Flexibility** procurement



Local authority **Multiple** 



### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ			0.1	5.4	10.1
ST			4.2	9.5	14.2
LW			1.5	6.9	10.9
FS		0.0	4.8	9.6	13.6
FLEX			100%		

Key:







Legend:







Postcode: KT15 3AS

#### **Constraint description:**

The site is expected to be overloaded under N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- Install a 132kV cable circuit
- Extend the 11kV switchgear panel
- · Install a grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season **Summer/Winter** 





Flex revenue range £/MW

£9,800 - £14,000

Customers served 14,630



**Current status Flexibility** procurement



Local authority

Runnymede **Surrey Heath** 



#### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	Ŷ				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ		6.5			
ST		7.1			
LW		6.3			
FS		7.4			
FLEX		10%			

Key:





**Flexibility** 

Legend:





Warehorne

Area: SPN

Postcode: TN26 2JX

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited interconnection capacity.

site the traditional solution is to:

Traditional solution: In order to increase capacity at the · Install an additional transformer · Replace the 11kV switchgear • Install a new 33kV circuit. The maps are for indicative purposes. Please use the postcodes for accurate location information. <u>Ի</u>ղ \_(Ն Flex revenue range £/MW Constraint season Constraint year Winter 2024 £70,000 - £100,000

Customers served 1,813



**Current status Flexibility** 

procurement



Local authority

**Ashford** Folkestone and Hythe

### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2024	2025	2026	2027	2028
1				
	124	024 2025	024 2025 2026	024 2025 2026 2027

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.2	0.3	0.5	0.9	1.2
ST	0.2	0.4	0.7	0.9	1.2
LW	0.1	0.3	0.7	0.9	1.2
FS	0.2	0.4	0.5	0.8	1.0
FLEX	100%				

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





### Warehorne Group

Area: SPN

Postcode: Mixed

#### **Constraint description:**

The circuits supporting this group are expected to be overloaded under an N-1 outage condition due to voltage regulation.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- · Install an additional transformer
- · Replace the 11kV switchgear
- Increase the capacity of the 33kV circuits.

The maps are for indicative purposes. Please use the postcodes for accurate location information.





Constraint year 2024



Flex revenue range £/MW

£14,700 - £21,000

Customers served 14,174



**Current status Flexibility** procurement



Local authority **Multiple** 

#### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	6.6	7.3	8.2	9.5	10.9
ST	7.2	8.0	9.0	10.0	11.2
LW	6.6	7.6	8.7	9.8	11.0
FS	7.2	8.0	8.9	9.8	10.8
FLEX	<10%	10%	10%		

Key:







Legend:







Postcode: CT3 3JD

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- Replace the existing transformers
- Replace the 11kV switchgear
- Increase the capacity of the 33kV circuits.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter/Summer Constraint year 2024



Flex revenue range £/MW

£16,100 - £23,000

Customers served 7,421

**Current status Flexibility** procurement

Local authority **Multiple** 



### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	3.9	4.3	4.9	5.6	6.5
ST	4.4	4.9	5.6	6.3	7.2
LW	3.9	4.4	5.0	5.8	6.5
FS	4.6	5.0	5.6	6.3	7.0
FLEX	<10%	<10%	10%		

Key:







Legend:





### Wittersham

Area: SPN

Postcode: TN30 7HG

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited interconnection capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- Replace the existing transformers
- · Replace the 6.6kV switchgear
- Increase the capacity of the 33kV circuits.





### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. The procured flexibility will reduce the need to a level that can be managed via network adjustment. We aim to procure more flexibility in the upcoming tender events.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	7				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.1	1.1	1.2	1.2	1.4
ST	1.2	1.2	1.2	1.3	1.3
LW	1.1	1.1	1.2	1.2	1.2
FS	1.2	1.2	1.2	1.3	1.3
FLEX	10%	10%	10%		

Key:







Legend:





### Wrotham

Area: SPN

Postcode: TN15 7RR

#### **Constraint description:**

The site is expected to be overloaded under an N-1 outage condition due to limited transformer capacity.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to:

- Replace the existing transformers
- Replace the 11kV switchgear
- Increase the capacity of the 33kV circuits.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Flex revenue range £/MW

£70,000 - £100,000

Customers served 8,032



**Current status Flexibility** procurement



Local authority

Tonbridge and Malling



#### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

#### **DNOA** result history:

2023	2024	2025	2026	2027	2028
(Î)	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.1	0.8	1.8	2.8	4.0
ST	0.5	1.4	2.4	3.4	4.5
LW	0.2	1.1	2.2	3.3	4.3
FS	0.4	1.2	2.1	2.9	3.8
FLEX	100%	60%	40%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short





CHAPTER 02

# List of removed sites

In the table below we present a list of sites that had identified needs in the previous DNOA publication, however we did not include them in this annual cycle. This can be either because the network demand has reduced or because reinforcement work has increased the capacity of the network and the need is resolved.

Агеа	Scheme name	DNOA 2024 Removal Reasoning
	Ampthill	Updated forecasts
	Austin Canons Primary	Updated forecasts
	Basildon Local Total	Need appears after 3 years so we will likely include in DNOA 2025
	Bourn	Updated forecasts
FPN	Brandon	Need appears after 3 years so we will likely include in DNOA 2025
EPN	Brockenhurst Mill Hill Total	Project in delivery
	Brogborough	Updated forecasts
	Central Harpenden	Need managed via network flexibility
	Chaul End	Updated forecasts
	Coxford	Updated forecasts
	Cromer	Updated forecasts

Scheme name	DNOA 2024 Removal Reasoning
East Barnet	Updated forecasts
Elm Park	Need appears after 3 years so we will likely include in DNOA 2025
Feltwell	Updated forecasts
Hartspring	Need appears after 4 years so we will likely include in DNOA 2026
High Street	Need driven by large connection whose load phasing is uncertain. We will monintor the load deployment and take action if required.
Ilmer Grid 33	Need driven by large connection whose load phasing is uncertain. We will monintor the load deployment and take action if required.
Leighton Buzzard	Reinforcement completed and constraint resolved
Lt Massingham	Updated forecasts
March Grid 33	Need appears after 4 years so we will likely include in DNOA 2026
	East Barnet Elm Park Feltwell Hartspring High Street Ilmer Grid 33 Leighton Buzzard Lt Massingham





Area	Scheme name	DNOA 2024 Removal Reasoning			
	Milton Road	Need driven by large connection whose load phasing is uncertain. We will monintor the load deployment and take action if required.			
	Thorpe Grid 33	Need appears after 4 years so we will likely include in DNOA 2026			
EPN	Waddesdon	Work underway to resolve constraint			
	West Letchworth Shefford Biggleswade T1 Group	Updated forecasts			
	Wiggenhall	Updated forecasts			
	Aberdeen Place B	Updated forecasts			
	Back Hill 11kV T4	Updated forecasts			
	Back Hill 132kV Group	Circuits currently being worked on			
	Blackhorse Lane	Updated forecasts			
LPN	Bromley South	Updated forecasts			
	Eltham Grid 11kV	Updated forecasts			
	Eltham Grid 33kV	Updated forecasts			
	Exeter Road	Updated forecasts			
	Nelson Street	Work underway to resolve constraint			
	Sewell Road	Updated forecasts			
SPN	Betchworth T1	Updated forecasts			

Area	Scheme name	DNOA 2024 Removal Reasoning
	Capel T2	Need has droped plus we had previously procured Flex capacity
	Chatham West A (T1 and T2)	Work underway to resolve constraint
	Chatham West B (T3 and T4)	Updated forecasts
	Cranbrook	Updated forecasts
	Dover T1/T2	Updated forecasts
	Dymchurch	Updated forecasts
	Guildford A 11kV	Updated forecasts
	Guildford B 11kV	Updated forecasts
SPN	Lewes Central	Updated forecasts
	Nutfield	Updated forecasts
	Sevington Total	Updated forecasts
	Sittingbourne Grid GT1 GT2	Work underway to resolve constraint
	South Orpington	Updated forecasts
	St Peters	Updated forecasts
	Staplehurst	Updated forecasts
	Townsend Hook	Updated forecasts
	West Worthing	Updated forecasts
	Weybridge	Updated forecasts



CHAPTER 02

# Whole Systems Use Cases

As we mention in the DNOA Methodology document, our role as a DSO is to coordinate effectively with other sectors within the whole electricity system. This coordinated approach aims to support the efficient use of existing network capacity across distribution and transmission networks and identify opportunities for whole system solutions to be developed and delivered for the benefit of all GB consumers.

We explained a number of use cases where the whole systems approach is being implemented. In this DNOA Report document, we include an update on our West London use where we seek flexibility to deliver whole system benefits.

#### **West London**

The West London network load increase is requiring a coordinated approach as we explain in the methodology document. As part of the solution, we are procuring flexibility in the Willesden Grid substation. The appropriate report in the LPN section above showcases our progress to date that will ultimately help release capacity for new connections.



CHAPTER 03

# HV Generation Results

In this chapter we present the detailed reports for the results of the DNOA process of the HV generation sites.

EPN Results PAGE 76
SPN Results PAGE 109









### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



3,562

Constraint year 2024





**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5	5	5		
ST	5	5	5		
LW	5	5	5		
FS	5	5	5		
FLEX	<10%	<10%	<10%		

Key:







Legend:



## **Braintree Local**

Area: EPN

Postcode: CM77 8DJ

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

53,757

Constraint year **2024** 



Flex utilisation fee (£/MWh)



c

Current status
Flexibility
procurement



Local authority

Multiple



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(P)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	34	34	34		
ST	34	34	34		
LW	34	34	34		
FS	34	34	34		
FLEX	20%	20%	20%		

Key:







Legend:





Postcode: IP8 4JL

### **Constraint description:**

A 132kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 132kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

84,045

Constraint year 2024



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	27.9	27.9	27.9		
ST	27.9	27.9	27.9		
LW	27.9	27.9	27.9		
FS	27.9	27.9	27.9		
FLEX	>100%	>100%	>100%		

Key:







Legend:





Postcode: IP33 2AX

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season
Winter/Summer

Customers served

44,107

Constraint year



£

000

Current status
Flexibility
procurement

Local authority

Multiple



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.9	1.9	1.9		
ST	1.9	1.9	1.9		
LW	1.9	1.9	1.9		
FS	1.9	1.9	1.9		
FLEX	50%	50%	50%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short FLEX: Flexibility Procurement Progress

2024



## Bury Grid 2

Area: EPN

Postcode: IP33 2AX

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year



Flex utilisation fee (£/MWh)



Current status
Flexibility

procurement



Local authority

Multiple



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.9	1.9	1.9		
ST	1.9	1.9	1.9		
LW	1.9	1.9	1.9		
FS	1.9	1.9	1.9		
FLEX	50%	50%	50%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

FLEX: Flexibility Procurement Progress

44,107

Customers served





Postcode: IP33 2AX

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

44,107

Constraint year 2024

procurement



Flex utilisation fee (£/MWh) £156

**Current status Flexibility** 



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	11.5	11.5	11.5		
ST	11.5	11.5	11.5		
LW	11.5	11.5	11.5		
FS	11.5	11.5	11.5		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>



Postcode: NR5 8NQ

### **Constraint description:**

A 132kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 132kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

116,096

Constraint year 2024



Flex utilisation fee (£/MWh)

£156

**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	70.5	70.5	70.5		
ST	70.5	70.5	70.5		
LW	70.5	70.5	70.5		
FS	70.5	70.5	70.5		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress





## Eye

Area: EPN

Postcode: IP23 7NJ

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

3,491

Constraint year 2024



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5	5	5		
ST	5	5	5		
LW	5	5	5		
FS	5	5	5		
FLEX	<10%	<10%	<10%		

Key:







Legend:





Postcode: PE7 3BJ

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

9,798

Constraint year



Flex utilisation fee (£/MWh)



Current status
Flexibility
procurement



Local authority

Multiple



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(P)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	11.7	11.7	11.7		
ST	11.7	11.7	11.7		
LW	11.7	11.7	11.7		
FS	11.7	11.7	11.7		
FLEX	<10%	<10%	<10%		

Key:







Legend:

**EPN RESULTS** 

Executive

Summary





Area: EPN

Postcode: PE7 3BJ

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

9,798

Constraint year 2024



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	8.3	8.3	8.3		
ST	8.3	8.3	8.3		
LW	8.3	8.3	8.3		
FS	8.3	8.3	8.3		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress





## **Frinton**

Area: EPN

Postcode: CO13 9NH

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

10,541

Constraint year 2024



**Current status Flexibility** procurement

Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5	5	5		
ST	5	5	5		
LW	5	5	5		
FS	5	5	5		
FLEX	10%	10%	10%		

Key:







Legend:





Postcode: IP19 8QJ

### **Constraint description:**

A primary transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the primary transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year





Current status
Flexibility

2024



Local authority

Multiple



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5	5	5		
ST	5	5	5		
LW	5	5	5		
FS	5	5	5		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short FLEX: Flexibility Procurement Progress

Customers served

5,536

procurement





Postcode: IP19 8QJ

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

21,754

Constraint year



Flex utilisation fee (£/MWh) £156

**Current status Flexibility** 

procurement

2024



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	12.1	12.1	12.1		
ST	12.1	12.1	12.1		
LW	12.1	12.1	12.1		
FS	12.1	12.1	12.1		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>





Postcode: NR21 7LJ

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Flex utilisation fee (£/MWh) £156



Customers served 22,336

**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.8	0.8	0.8		
ST	0.8	0.8	0.8		
LW	0.8	0.8	0.8		
FS	0.8	0.8	0.8		
FLEX	>100%	>100%	>100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>





Postcode: PE31 8HL

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Flex utilisation fee (£/MWh)

£156

Customers served

4,230

**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5	5	5		
ST	5	5	5		
LW	5	5	5		
FS	5	5	5		
FLEX	<10%	<10%	<10%		

Key:







Legend:







Postcode: CB25 9PG

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

4,214

Constraint year 2024



Flex utilisation fee (£/MWh) £156

**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	10	10	10		
ST	10	10	10		
LW	10	10	10		
FS	10	10	10		
FLEX	<10%	<10%	<10%		

Key:







Legend:





Area: EPN

Postcode: CB25 9PG

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Flex utilisation fee (£/MWh) £156

**Current status Flexibility** 

Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	7	7	7		
ST	7	7	7		
LW	7	7	7		
FS	7	7	7		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

Customers served 4,214

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>

procurement







Postcode: CO11 2QA

### **Constraint description:**

A 132kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 132kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

33,956

Constraint year 2024



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	72.7	72.7	72.7		
ST	72.7	72.7	72.7		
LW	72.7	72.7	72.7		
FS	72.7	72.7	72.7		
FLEX	30%	30%	30%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>



## Lawford 2

Area: EPN

Postcode: CO11 2QA

### **Constraint description:**

A 132kV feeder is expected to be overloaded at maximum generation conditions in the network.

### Traditional solution:

In order to increase capacity at the site the traditional solution is to replace the 132kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year



Flex utilisation fee (£/MWh)

£156

Customers served

33,956

Current status
Flexibility
procurement



Local authority

Multiple



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	19.6	19.6	19.6		
ST	19.6	19.6	19.6		
LW	19.6	19.6	19.6		
FS	19.6	19.6	19.6		
FLEX	<10%	<10%	<10%		

Key:







Legend:





Postcode: PE15 9RH

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

30,107

Constraint year 2024



**Current status Flexibility** 

procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	17.7	17.7	17.7		
ST	17.7	17.7	17.7		
LW	17.7	17.7	17.7		
FS	17.7	17.7	17.7		
FLEX	>100%	>100%	>100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>





Postcode: PE16 6TG

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### Traditional solution:

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year



Flex utilisation fee (£/MWh)

Customers served

10,786

Current status
Flexibility
procurement



Local authority

Multiple



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1	1	1		
ST	1	1	1		
LW	1	1	1		
FS	1	1	1		
FLEX	>100%	>100%	>100%		

Key:







Legend:



# Whittlesey Chatteris 2

Area: EPN

Postcode: PE16 6TG

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Flex utilisation fee (£/MWh) £156

Local authority **Multiple** 



**Current status Flexibility** procurement

### Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	0.8	0.8	0.8		
ST	0.8	0.8	0.8		
LW	0.8	0.8	0.8		
FS	0.8	0.8	0.8		
FLEX	>100%	>100%	>100%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation

LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

Customers served 10,786

For more information, please get in touch via email to <a href="mailto:networkoptionsassessment@ukpowernetworks.co.uk">networkoptionsassessment@ukpowernetworks.co.uk</a>







Postcode: NR12 8UT

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

4,619

Constraint year 2024



Flex utilisation fee (£/MWh) £156

**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	8.8	8.8	8.8		
ST	8.8	8.8	8.8		
LW	8.8	8.8	8.8		
FS	8.8	8.8	8.8		
FLEX	<10%	<10%	<10%		

Key:







Legend:





Postcode: PE19 6YQ

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.

Constraint season Winter/Summer

Constraint year 2024



Flex utilisation fee (£/MWh)

£156

Customers served 41,454

**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	9.3	9.3	9.3		
ST	9.3	9.3	9.3		
LW	9.3	9.3	9.3		
FS	9.3	9.3	9.3		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress



Postcode: PE28 0BW

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

#### Traditional solution:

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

2,210

Constraint year 2024



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

## Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5	5	5		
ST	5	5	5		
LW	5	5	5		
FS	5	5	5		
FLEX	<10%	<10%	<10%		

Key:







Legend:





Postcode: NR28 9RX

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

509

Constraint year 2024



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	1.5	1.5	1.5		
ST	1.5	1.5	1.5		
LW	1.5	1.5	1.5		
FS	1.5	1.5	1.5		
FLEX	30%	30%	30%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress



# Peterborough Grid

Area: EPN

Postcode: PE3 7PG

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Constraint year 2024



Flex utilisation fee (£/MWh)

£156

Customers served

31,506

**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	34.8	34.8	34.8		
ST	34.8	34.8	34.8		
LW	34.8	34.8	34.8		
FS	34.8	34.8	34.8		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress





Postcode: RM19 1NS

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

30,572

Constraint year 2024



Flex utilisation fee (£/MWh) £156

**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(P)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	4.3	4.3	4.3		
ST	4.3	4.3	4.3		
LW	4.3	4.3	4.3		
FS	4.3	4.3	4.3		
FLEX	30%	30%	30%		

Key:







Legend:

# Rayleigh Main

Area: EPN

Postcode: SS11 8TZ

### **Constraint description:**

A 132kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 132kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

63,099

Constraint year



Flex utilisation fee (£/MWh)



Current status
Flexibility
procurement



Local authority

Multiple



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	74.9	74.9	74.9		
ST	74.9	74.9	74.9		
LW	74.9	74.9	74.9		
FS	74.9	74.9	74.9		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress



Postcode: NR10 4EP

### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

60,513

Constraint year 2024



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement





## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5.1	5.1	5.1		
ST	5.1	5.1	5.1		
LW	5.1	5.1	5.1		
FS	5.1	5.1	5.1		
FLEX	20%	20%	20%		

Key:







Legend:





Area: EPN

Postcode: NR10 4EP

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



60,513

Constraint year



Customers served

Current status
Flexibility
procurement



Local authority

Multiple



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA result history:**

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	3	3	3		
ST	3	3	3		
LW	3	3	3		
FS	3	3	3		
FLEX	100%	100%	100%		

Key:







Legend:





Postcode: PE37 8DB

### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

25,976

Constraint year



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	8	8	8		
ST	8	8	8		
LW	8	8	8		
FS	8	8	8		
FLEX	20%	20%	20%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

2024





Area: EPN

Postcode: RM14 3PL

### **Constraint description:**

A 132kV feeder is expected to be overloaded at maximum generation conditions in the network.

### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 132kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

54,550

Constraint year 2024



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We procured sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We will continue procuring flexibility in the next events to fulfil the system needs.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	12.7	12.7	12.7		
ST	12.7	12.7	12.7		
LW	12.7	12.7	12.7		
FS	12.7	12.7	12.7		
FLEX	>100%	>100%	>100%		

Key:







Legend:

**SPN RESULTS** 

109



## Betteshanger Grid

Area: SPN

Postcode: CT14 OLT

#### **Constraint description:**

A 33kV feeder is expected to be overloaded at maximum generation conditions in the network.

#### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 33kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

32,547

Constraint year 2024



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement



Local authority **Multiple** 



## Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	5	5	5		
ST	5	5	5		
LW	5	5	5		
FS	5	5	5		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress







Area: SPN

Postcode: CT13 9NL

### **Constraint description:**

A 132kV feeder is expected to be overloaded at maximum generation conditions in the network.

#### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 132kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

25,060

Constraint year 2024



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement



Local authority **Multiple** 



### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(Pj.)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	56.8	56.8	56.8		
ST	56.8	56.8	56.8		
LW	56.8	56.8	56.8		
FS	56.8	56.8	56.8		
FLEX	<10%	<10%	<10%		

Key:







CT: Consumer Transformation ST: System Transformation Legend: LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress

**SPN RESULTS** 



# Richborough 2

Area: SPN

Postcode: CT13 9NL

### **Constraint description:**

A 132kV feeder is expected to be overloaded at maximum generation conditions in the network.

#### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the 132kV feeder.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

25,060

Constraint year 2024





**Current status Flexibility** procurement



Local authority **Multiple** 



### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PL)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	34.9	34.9	34.9		
ST	34.9	34.9	34.9		
LW	34.9	34.9	34.9		
FS	34.9	34.9	34.9		
FLEX	<10%	<10%	<10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short

**FLEX:** Flexibility Procurement Progress

112



# **Sellindge Local**

Area: SPN

Postcode: TN25 6AF

#### **Constraint description:**

A grid transformer is expected to be overloaded at maximum generation conditions in the network.

#### **Traditional solution:**

In order to increase capacity at the site the traditional solution is to replace the grid transformer.

The maps are for indicative purposes. Please use the postcodes for accurate location information.



Customers served

15,856

Constraint year 2024



Flex utilisation fee (£/MWh) £156



**Current status Flexibility** procurement



Local authority **Multiple** 



### Approved DNOA recommendation:



We were not able to procure sufficient flexibility for the first year through our Autumn 2023 Flexibility Tender. We aim to procure more flexibility in the upcoming tender events.

### **DNOA** result history:

2023	2024	2025	2026	2027	2028
	(PJ)				

# Flex requirement per year for each scenario (MW) and flex procurement progress (%)

	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029
СТ	2.6	2.6	2.6		
ST	2.6	2.6	2.6		
LW	2.6	2.6	2.6		
FS	2.6	2.6	2.6		
FLEX	10%	10%	10%		

Key:







Legend:

CT: Consumer Transformation ST: System Transformation LW: Leading the Way FS: Falling Short **FLEX:** Flexibility Procurement Progress



CHAPTER 04

# LV Demand Results

In this chapter we present the detailed reports for the results of the DNOA process of the HV generation sites.











### CHAPTER 04

# LV Demand Results

**In the table below**, we present the results of the DNOA process for the LV demand sites for this year. More information can be found at UKPN DSO website, in the flexibility hub section<sup>5</sup>.

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Albion Rd	2026	500	0	Procure more flex in future tender events
	America Farm Doddinghurst Rd	2024	200	0	Procure more flex in future tender events
	Ampthill Road	2026	800	10	Sufficient flexibility procured
	Anglers Retreat	2024	200	0	Procure more flex in future tender events
EPN	Arla Street Lights	2024	200	0	Procure more flex in future tender events
	Ash Grove	2026	800	0	Procure more flex in future tender events
	Ashton Gdns	2026	1000	10	Sufficient flexibility procured
	Bancroft Cl	2026	800	10	Sufficient flexibility procured
	Bannold Road	2026	500	10	Procure more flex in future tender events

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Barbara Avenue	2024	800	0	Procure more flex in future tender events
	Barcham Fm	2024	200	0	Procure more flex in future tender events
	Barley Way	2025	1000	0	Procure more flex in future tender events
	Beech Drive	2026	500	10	Sufficient flexibility procured
EPN	Belvedere Garages	2026	800	29	Sufficient flexibility procured
	Bishops House Stock	2026	200	0	Procure more flex in future tender events
	Boby Road	2026	500	0	Procure more flex in future tender events
	Bonham Road	2026	800	10	Procure more flex in future tender events
	Bott Heath Transmitter	2024	100	0	Procure more flex in future tender events

<sup>&</sup>lt;sup>5</sup> Tender Hub - UKPN DSO (ukpowernetworks.co.uk)

Executive

Summary





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Bourne Avenue	2026	1315	14	Procure more flex in future tender events
	Box Tree Farm	2024	315	0	Procure more flex in future tender events
	Brackett	2024	315	0	Procure more flex in future tender events
	Bradfields Fm Burnt Mills Rd	2024	200	10	Procure more flex in future tender events
	Broadland Pk Streetlight	2024	200	14	Sufficient flexibility procured
	Broadlands Avenue	2026	500	10	Sufficient flexibility procured
EPN	Brockhurst Road	2025	1000	0	Procure more flex in future tender events
EPIN	Brooke Lane	2025	500	0	Procure more flex in future tender events
	Brudenell	2026	1315	10	Sufficient flexibility procured
	Buckland Wharf	2026	1000	10	Sufficient flexibility procured
	Bulls Ln	2026	1315	0	Procure more flex in future tender events
	Burford Estate	2026	800	0	Procure more flex in future tender events
	Cambridge Rd	2026	800	15	Sufficient flexibility procured
	Candlefield Rd	2026	800	10	Sufficient flexibility procured

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Cannon Lane 194	2025	1000	0	Procure more flex in future tender events
	Carron Dr	2024	1000	59	Procure more flex in future tender events
	Carter Road	2026	800	0	Procure more flex in future tender events
	Cedar Dr	2025	1000	0	Procure more flex in future tender events
	Cestreham Crescent	2025	800	0	Procure more flex in future tender events
	Chalet	2024	1000	14	Procure more flex in future tender events
EDNI	Chapel Lane Padmount	2026	200	10	Procure more flex in future tender events
EPN	Cheshunt Park	2024	200	0	Procure more flex in future tender events
	Cheshunt West Mast	2024	200	0	Procure more flex in future tender events
	Chestnut Fm	2025	315	0	Procure more flex in future tender events
	Church Street	2026	200	10	Sufficient flexibility procured
	Clyde Terrace	2025	1000	37	Sufficient flexibility procured
	Codling Road	2026	500	0	Procure more flex in future tender events
	Colthorpe Rd	2026	800	10	Sufficient flexibility procured





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Constance Cl	2026	500	10	Procure more flex in future tender events
	Cotswold Ave Trans	2025	800	19	Sufficient flexibility procured
	Crawley Close	2026	800	0	Procure more flex in future tender events
	Cromwell Pk	2024	800	37	Procure more flex in future tender events
	Cumberland Avenue 122	2026	800	0	Procure more flex in future tender events
	Cyprus Road	2026	500	12	Sufficient flexibility procured
EPN	Dam Farm	2025	800	0	Procure more flex in future tender events
LFIN	Dartford Road	2026	800	10	Sufficient flexibility procured
	Davids Close	2026	200	10	Sufficient flexibility procured
	Dawlish Drive	2026	500	0	Procure more flex in future tender events
	Deep Spinney East	2026	800	10	Sufficient flexibility procured
	Deep Spinney West	2025	1000	42	Procure more flex in future tender events
	Deerleap Way	2026	1315	10	Sufficient flexibility procured
	Denmark Street	2026	1315	0	Procure more flex in future tender events

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Drake Road Underpass	2026	500	0	Procure more flex in future tender events
	Dunsham Ln	2024	800	10	Procure more flex in future tender events
	Earith Road	2024	800	10	Procure more flex in future tender events
	East St	2025	800	0	Procure more flex in future tender events
	Eastbrook Cemetery	2024	200	14	Sufficient flexibility procured
	Eastwood Drive	2026	500	10	Procure more flex in future tender events
FON	Eaton Road	2026	500	10	Sufficient flexibility procured
EPN	Egdon Dr	2025	1000	20	Sufficient flexibility procured
	Eighth Avenue	2024	800	0	Procure more flex in future tender events
	Elmcott Egg Fm	2024	200	0	Procure more flex in future tender events
	Fairfield Rd	2026	1315	10	Sufficient flexibility procured
	Farriers Went	2026	1000	26	Sufficient flexibility procured
	Felden Dr	2026	500	10	Sufficient flexibility procured
	Ferndale Rd 16	2026	500	10	Sufficient flexibility procured



Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Forty Row	2024	200	10	Procure more flex in future tender events
	Fox Fm	2024	200	0	Procure more flex in future tender events
	Foxhatch	2026	800	10	Sufficient flexibility procured
	Gainsborough Drive	2025	500	10	Procure more flex in future tender events
	Girton Village	2026	500	0	Procure more flex in future tender events
	Grange Farm	2025	1000	29	Sufficient flexibility procured
EPN	Grange Farm H.e.	2026	800	0	Procure more flex in future tender events
EPIN	Gray Road	2025	800	0	Procure more flex in future tender events
	Green	2025	100	0	Procure more flex in future tender events
	Greenhaze Lane	2025	1000	0	Procure more flex in future tender events
	Groveside	2026	500	10	Sufficient flexibility procured
	Hall 1	2025	100	0	Procure more flex in future tender events
	Hall 2	2024	200	0	Procure more flex in future tender events
	Hall Fm.	2025	100	0	Procure more flex in future tender events

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Hallfield Fm.	2025	315	0	Procure more flex in future tender events
	Hampden Close	2026	500	0	Procure more flex in future tender events
	Hartford Road	2025	1315	43	Procure more flex in future tender events
	Hayling Close	2025	800	14	Procure more flex in future tender events
	Hazelton Rd	2024	800	10	Sufficient flexibility procured
	High Lift Villas	2024	100	0	Procure more flex in future tender events
<b>50.</b> 1	Hillside Rd	2024	800	0	Procure more flex in future tender events
EPN	Holly Cl	2025	800	0	Procure more flex in future tender events
	Household Waste Site	2024	200	0	Procure more flex in future tender events
	Housing Sharpenhoe	2024	200	0	Procure more flex in future tender events
	Ilfracombe Crescent	2026	800	10	Procure more flex in future tender events
	Juliet Av Central	2024	315	0	Procure more flex in future tender events
	Keeley Green	2026	500	0	Procure more flex in future tender events
	Keepers Cottage 1	2026	100	10	Sufficient flexibility procured





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Kesgrave Social Club	2024	315	10	Procure more flex in future tender events
	Kingswood Avenue No 2	2025	500	0	Procure more flex in future tender events
	Kirby Drive	2026	1000	42	Sufficient flexibility procured
	Knights Cl	2024	1000	33	Procure more flex in future tender events
	Langford Road	2026	500	0	Procure more flex in future tender events
	Langham Rd	2026	200	0	Procure more flex in future tender events
EPN	Lantree Crescent	2024	800	14	Procure more flex in future tender events
EPIN	Laxton Ave	2026	800	10	Sufficient flexibility procured
	Leavesden Retail	2025	800	22	Sufficient flexibility procured
	Leverington Road	2026	800	0	Procure more flex in future tender events
	Lichfield Road	2024	800	0	Procure more flex in future tender events
	Little Warley Lane	2024	200	0	Procure more flex in future tender events
	Llanover Rd	2024	800	10	Procure more flex in future tender events
	London Rd 1	2025	800	24	Sufficient flexibility procured

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	London Rd 2	2026	500	10	Sufficient flexibility procured
	Longfurlong.	2026	800	14	Procure more flex in future tender events
	Longmire	2025	800	41	Sufficient flexibility procured
	Lords Wood	2026	800	10	Sufficient flexibility procured
	Low St	2024	100	0	Procure more flex in future tender events
	Lower Rd	2024	100	10	Procure more flex in future tender events
EPN	Lufkins Fm	2024	200	0	Procure more flex in future tender events
EPIN	Main Street	2025	800	0	Procure more flex in future tender events
	Manor Road Flats	2026	500	0	Procure more flex in future tender events
	Mardyke Farm	2025	1315	27	Procure more flex in future tender events
	Markazi Jamia Mosque	2024	800	0	Procure more flex in future tender events
	Marsh	2024	100	0	Procure more flex in future tender events
	Marsh Farm	2026	100	0	Procure more flex in future tender events
	Meadowside	2026	800	28	Sufficient flexibility procured

Executive

Summary





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Meadway	2025	800	35	Sufficient flexibility procured
	Mill Lane	2026	800	20	Sufficient flexibility procured
	Mill Meadow	2025	800	0	Procure more flex in future tender events
	Mill Road	2024	200	20	Sufficient flexibility procured
	Mill Road Barn	2024	100	0	Procure more flex in future tender events
	Mill Street	2026	200	10	Sufficient flexibility procured
	Moore Avenue	2025	800	0	Procure more flex in future tender events
EPN	Mount Bovers Lane	2025	500	0	Procure more flex in future tender events
	Mount Park Rd	2026	800	0	Procure more flex in future tender events
	Mountbatten Way	2026	800	14	Sufficient flexibility procured
	Myddylton Place	2024	800	0	Procure more flex in future tender events
	Newport Way	2024	500	11	Sufficient flexibility procured
	Newsells Stud Farm	2024	100	0	Procure more flex in future tender events
	Nicholas Rd	2026	800	0	Procure more flex in future tender events
	North Hill	2026	315	0	Procure more flex in future tender events

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Northfield Rd	2026	500	10	Procure more flex in future tender events
	Nottingham Way	2026	800	0	Procure more flex in future tender events
	Nursery Cl	2025	1000	0	Procure more flex in future tender events
	Oak Hill Farm	2024	200	0	Procure more flex in future tender events
	Old Ignation Football Club	2024	200	0	Procure more flex in future tender events
	Orchard Estate	2026	800	10	Sufficient flexibility procured
	Osborne Avenue No 9	2026	800	0	Procure more flex in future tender events
EPN	Ouse Lane	2024	100	0	Procure more flex in future tender events
	Padnal Drove	2026	800	20	Sufficient flexibility procured
	Park & Ride	2024	200	0	Procure more flex in future tender events
	Parklands	2024	800	0	Procure more flex in future tender events
	Parkthorne Dr	2026	1000	29	Sufficient flexibility procured
	Parsonage Ln	2024	800	0	Procure more flex in future tender events
	Parsons Green	2024	315	10	Procure more flex in future tender events
	Peewit Hill	2024	200	10	Procure more flex in future tender events





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Peters Lane Whiteleaf	2024	200	0	Procure more flex in future tender events
	Peveral Cl	2026	1315	39	Procure more flex in future tender events
	Picasso Pl	2026	2315	42	Procure more flex in future tender events
	Pine Gdns	2026	1315	10	Sufficient flexibility procured
	Prospect Pl (A)	2024	100	0	Procure more flex in future tender events
	Ravendale Way 62	2026	800	20	Sufficient flexibility procured
EPN	Recreation Ground	2025	315	20	Sufficient flexibility procured
EPIN	Rectory Lane	2026	315	20	Sufficient flexibility procured
	Redwings	2025	500	0	Procure more flex in future tender events
	Repps	2024	200	10	Procure more flex in future tender events
	Robin Close	2026	1000	20	Sufficient flexibility procured
	Rochford Avenue	2026	800	0	Procure more flex in future tender events
	Rockmill End	2026	800	10	Sufficient flexibility procured
	Rookery Fm (A)	2024	100	0	Procure more flex in future tender events

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Ropes Walk	2025	500	0	Procure more flex in future tender events
	Rushden Gardens	2026	500	0	Procure more flex in future tender events
	Saxon Way	2025	800	23	Procure more flex in future tender events
	School	2024	315	29	Sufficient flexibility procured
	School Lane	2025	1000	42	Sufficient flexibility procured
	School Lane (A)	2026	315	0	Procure more flex in future tender events
FON	Sector F	2025	800	28	Sufficient flexibility procured
EPN	Servite House	2024	500	10	Sufficient flexibility procured
	Shaftesbury Road	2026	800	46	Sufficient flexibility procured
	Sheering Rd	2026	500	0	Procure more flex in future tender events
	Sheppards Way	2026	800	10	Sufficient flexibility procured
	Simmons Lane	2026	500	0	Procure more flex in future tender events
	Skippon Way	2026	800	10	Sufficient flexibility procured
	Southwood Rd	2024	800	10	Procure more flex in future tender events





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Springfield Road	2026	1500	20	Sufficient flexibility procured
	St Andrews Church	2025	200	10	Sufficient flexibility procured
	St Margarets Avenue	2026	1500	10	Sufficient flexibility procured
	St Mary Street	2024	800	0	Procure more flex in future tender events
	Staithe	2024	200	0	Procure more flex in future tender events
	Station Road	2026	500	20	Sufficient flexibility procured
EPN	Stockers Estate	2024	800	0	Procure more flex in future tender events
EPIN	Stockton Road	2025	200	0	Procure more flex in future tender events
	Sun Hill Quarry	2026	315	10	Sufficient flexibility procured
	Sutton Road	2024	315	0	Procure more flex in future tender events
	The Hyde	2024	100	0	Procure more flex in future tender events
	The Joint	2026	800	10	Sufficient flexibility procured
	The Oaks	2025	800	32	Sufficient flexibility procured
	The Rookery	2026	500	10	Procure more flex in future tender events

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	The Spike	2026	500	10	Sufficient flexibility procured
	Thetford Road	2024	200	10	Procure more flex in future tender events
	Thornton Rd Flats	2026	800	10	Sufficient flexibility procured
	Tooleys Fm	2024	100	0	Procure more flex in future tender events
	Travellers Site	2024	200	0	Procure more flex in future tender events
	Turpins	2026	500	10	Sufficient flexibility procured
EPN	Valley Farm Offices	2024	200	14	Procure more flex in future tender events
EPIN	Vicarage Estate	2026	800	0	Procure more flex in future tender events
	Village 1	2026	200	10	Sufficient flexibility procured
	Village 2	2026	500	10	Sufficient flexibility procured
	Village Hall	2024	200	10	Sufficient flexibility procured
	Vixen Dr	2026	1315	26	Sufficient flexibility procured
	Waggon and Horses	2025	200	0	Procure more flex in future tender events
	Water Ln	2024	800	0	Procure more flex in future tender events





Агеа	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Water Tower Flats	2025	200	0	Procure more flex in future tender events
	Werrington Vill	2026	1500	43	Procure more flex in future tender events
	Wertheim Way East	2026	500	10	Sufficient flexibility procured
	West Dr	2025	500	12	Procure more flex in future tender events
EPN	Wheelers Lane	2024	200	12	Sufficient flexibility procured
EPIN	Widmore Drive	2026	1000	14	Procure more flex in future tender events
	Willow Farm	2025	200	10	Sufficient flexibility procured
	Windsor Ave	2026	1000	10	Sufficient flexibility procured
	Wix School	2024	200	0	Procure more flex in future tender events
	Woodlands Rd	2025	1000	0	Procure more flex in future tender events
	Ada St West	2024	800	14	Procure more flex in future tender events
LDM	Almer Road	2024	800	0	Procure more flex in future tender events
LPN	Ann St North	2025	1000	0	Procure more flex in future tender events
	Augustine Rd	2026	1315	11	Sufficient flexibility procured

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Bartholomew Rd R/O Kenbrook Hse	2026	2000	27	Sufficient flexibility procured
	Bastable Ave Adj 174	2024	1000	12	Procure more flex in future tender events
	Beehive Lane Adj 130	2026	1315	10	Sufficient flexibility procured
	Bermans Raven Rd	2024	800	0	Procure more flex in future tender events
	Birchdale Rd Sth	2024	1315	56	Procure more flex in future tender events
	Blissett St	2026	1315	27	Sufficient flexibility procured
LPN	Bushey Way	2026	1315	10	Sufficient flexibility procured
	Canon Ave Adj 56	2026	1315	12	Sufficient flexibility procured
	Cheapside 107	2024	1315	0	Procure more flex in future tender events
	Clyde Pl	2026	1315	11	Sufficient flexibility procured
	Cyrus St	2024	1000	14	Procure more flex in future tender events
	Devereux Rd	2024	800	0	Procure more flex in future tender events
	Devonport Gdns 28	2024	1315	53	Procure more flex in future tender events
	Eastern Ave 567	2025	1500	40	Sufficient flexibility procured





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Felbrigge Rd Adj 60	2026	1315	12	Sufficient flexibility procured
	Gaysham Ave R/O 3	2026	1000	10	Sufficient flexibility procured
	Glenilla Rd 28a	2024	1315	0	Procure more flex in future tender events
	Gosport Rd Opp 11	2025	1800	26	Sufficient flexibility procured
	Grafton Sq N U S	2024	1000	16	Procure more flex in future tender events
	Gravel Rd	2026	1315	0	Procure more flex in future tender events
LPN	Green Lane Penge	2026	1315	10	Sufficient flexibility procured
LFIN	Hillside Ave	2024	100	0	Procure more flex in future tender events
	Huddlestone Rd	2024	1315	0	Procure more flex in future tender events
	Ironmonger Lane 11	2024	800	0	Procure more flex in future tender events
	Ivy Road	2025	1000	0	Procure more flex in future tender events
	James Ave 19	2026	1315	10	Sufficient flexibility procured
	Leighton Rd R/O Kennistown Hse	2025	1315	10	Procure more flex in future tender events
	Monega Rd Grays	2026	1800	36	Sufficient flexibility procured

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	New Change 1 Anchor East	2024	1000	14	Procure more flex in future tender events
	Oakfield Rd	2026	1315	10	Sufficient flexibility procured
	Oaklands Rd	2026	1315	0	Procure more flex in future tender events
	Parkside Rd.	2024	1800	0	Procure more flex in future tender events
	Poplars Rd	2024	1000	30	Procure more flex in future tender events
	Prince Regent Ln 221a	2026	1315	31	Sufficient flexibility procured
IPN	Railton Rd Adj 2	2026	1500	10	Sufficient flexibility procured
LPN	Shirland Rd 41	2025	1500	0	Procure more flex in future tender events
	Springfield Rd Crowland Hse	2024	1315	22	Procure more flex in future tender events
	Swedenborg Sq Stockholm Hse	2026	1000	14	Procure more flex in future tender events
	Tavistock Gdns Adj 47	2024	1315	85	Sufficient flexibility procured
	Temple Hill Sq	2024	1315	23	Procure more flex in future tender events
	The Chase No 84	2024	1000	16	Procure more flex in future tender events
	Turpins Lane	2026	1000	10	Sufficient flexibility procured





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Twyford Abbey Rd	2026	1000	10	Sufficient flexibility procured
	Vicarage Road West 1	2024	800	28	Sufficient flexibility procured
	Vicarage Road West 2	2024	800	42	Sufficient flexibility procured
LPN	Warner Road	2026	1315	0	Procure more flex in future tender events
	Waterloo Passage	2024	1315	0	Procure more flex in future tender events
	Westwood Rd 114	2024	1315	56	Sufficient flexibility procured
	York Rise R/O 35	2026	1315	10	Sufficient flexibility procured
	Anlaby Road	2024	1500	64	Sufficient flexibility procured
	Beechwood	2024	100	10	Sufficient flexibility procured
	Blunden Lane	2026	500	10	Sufficient flexibility procured
SPN	Bockell Farm	2024	200	0	Procure more flex in future tender events
	Calor Gas Old Station Yard	2024	200	0	Procure more flex in future tender events
	Cambridge Road	2024	1315	55	Procure more flex in future tender events
	Canterbury Road West Blean	2024	200	0	Procure more flex in future tender events

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Cedar Lodge	2024	200	0	Procure more flex in future tender events
	Chestnut Way	2025	800	52	Sufficient flexibility procured
	Chilham Road	2024	1315	49	Procure more flex in future tender events
	Church Farm School	2024	1000	0	Procure more flex in future tender events
	Cleveland Road	2026	1315	19	Sufficient flexibility procured
	Connaught Hotel	2024	500	10	Procure more flex in future tender events
SPN	Crown Road	2026	1315	10	Sufficient flexibility procured
SPN	Ewhurst Road	2024	500	10	Procure more flex in future tender events
	Furzefield Ave	2026	500	0	Procure more flex in future tender events
	Galleypot Street	2025	200	0	Procure more flex in future tender events
	Gibbet Oak Farm	2024	200	0	Procure more flex in future tender events
	Glassenbury	2024	200	0	Procure more flex in future tender events
	Greystones	2025	1000	13	Sufficient flexibility procured
	Guileshill Farm	2024	200	0	Procure more flex in future tender events





Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Harmans Corner	2026	800	10	Sufficient flexibility procured
	Highlands Inn	2024	315	10	Procure more flex in future tender events
	Horton	2026	1315	29	Sufficient flexibility procured
	Hurst Close	2025	500	16	Sufficient flexibility procured
	Keepers Cottage 2	2024	200	11	Procure more flex in future tender events
	Kings Barn Lane West	2026	1000	11	Sufficient flexibility procured
SPN	Kingsnorth	2024	100	0	Procure more flex in future tender events
SPIN	Leyhurst Farm	2024	200	0	Procure more flex in future tender events
	Lister Road	2025	800	28	Sufficient flexibility procured
	Lock Barn Micro	2024	315	0	Procure more flex in future tender events
	Lock House	2024	200	0	Procure more flex in future tender events
	Maidstone Road	2025	800	20	Sufficient flexibility procured
	Malthouse Close	2025	500	12	Sufficient flexibility procured
	Meadow Rise	2026	1000	38	Sufficient flexibility procured

Area	Substation Name	Constraint year	Deferred Transformer size (kVA)	TR9 flex capacity awarded (kW)	DNOA Result
	Merton Walk	2024	1000	29	Procure more flex in future tender events
	Middleton Farm	2026	100	0	Procure more flex in future tender events
	Milestone Cottage	2024	100	0	Procure more flex in future tender events
	Moat Cottages	2024	200	0	Procure more flex in future tender events
	Northbourne Street	2026	200	0	Procure more flex in future tender events
	Nutfield Priory Micro	2024	200	14	Sufficient flexibility procured
SPN	Orchard Heights	2024	1000	58	Procure more flex in future tender events
SPN	Pallingham Drive	2026	800	0	Procure more flex in future tender events
	Port Avenue	2026	800	10	Sufficient flexibility procured
	Primary School	2025	800	16	Sufficient flexibility procured
	Rainham School Canteen	2024	1000	50	Procure more flex in future tender events
	Riverside House	2024	200	0	Procure more flex in future tender events
	Rochester Crescent	2025	1000	42	Procure more flex in future tender events
	Rushmore Hill	2025	500	10	Procure more flex in future tender events





# Definitions and acronyms











CHAPTER 05

# Definitions and acronyms

Term	Definition
СТ	Consumer Transformation
DNO	Distribution Network Operator
DNOA	Distribution Network Options Assessment
DSO	Distribution System Operator
EHV	Extra High Voltage
EPN	Eastern Power Networks
ESO / NGESO	Electricity System Operator / National Grid Electricity System Operator
ETO	Electricity Transmission Owner
GB	Great Britain
GIS	Gas Insulated Switchgear

Term	Definition
GSP	Global Supply Point
HV	High Voltage
LA	Local Authority
LAEP	Local Area Energy Planning
LPN	London Power Networks
LV	Low Voltage
SPN	Southeastern Power Networks
SSEN	Scottish and Southern Electricity Networks
UKPN	UK Power Networks
WACC	Weighted Average Cost of Capital